



Asia-Pacific Economic Cooperation

# *e*-APEC Strategy

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e-APEC TASK FORCE

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## EXECUTIVE SUMMARY

### 1. Background

At the Brunei APEC Summit, [we, the APEC Leaders,] launched an *Action Agenda for the New Economy* to demonstrate [our] resolve to spur its development, with the vision of approaching a digital society. [We] directed [our] Ministers to develop and expand the agenda to enable all APEC economies to maximise the benefits of the emerging New Economy.

The New Economy contains four key elements as defined in the APEC Economic Committee's 2000 report: an effective innovation system, human resource development, an efficient ICT infrastructure as well as a business environment supportive of enterprise and innovation.

### 2. The e-APEC Strategy

To coordinate APEC initiatives to develop and expand the *Action Agenda for the New Economy*, the e-APEC Task Force was established by [our] officials. To fulfil this mandate, the e-APEC Task Force has developed a strategy that identified the necessary policy environment and specified appropriate goals and actions, drawing upon the existing efforts and on-going works within APEC.

The e-APEC Strategy [we] commended develops a forward-looking, long term, and action-oriented plan under three pillars:

- **To create an environment for strengthening market structures and institutions**

One of the main drivers of innovation, technology uptake and associated productivity gains has been the increased openness of markets, which has encouraged global trade and investment as well as the diffusion of ideas and knowledge.

[We] urge economies to implement appropriate policies and actions to promote sustainable growth. These include: a sound macroeconomic policy framework, sustained structural reform, an effective competition regime, good financial and corporate governance, efficient venture capital markets, a sound legal framework for intellectual property, improved risk management, transparent decision making, robust institutional frameworks, flexible labour markets, and targeted social policies. In their absence, developments in the

New Economy will raise the cost to governments of not getting such economic fundamentals right.

- **To facilitate an environment for infrastructure investment and technology development**

[We] encourage economies to construct a policy environment conducive to competitive investment and the widespread uptake of beneficial technologies. This requires:

- A legal and regulatory framework that provides the essential underpinning for business investment growth and consumer confidence;
- A competitive and robust network infrastructure that enables the advanced application of technology in modern business methods and enhanced societal transactions; and
- A competitive market for the “Value Chain” services that support the effective initiation and completion of e-commerce transactions.

Policies and actions necessary to achieve these goals include: on-line transaction laws; continuing work on electronic authentication and signatures; the promotion of information security, personal data protection, and consumer trust; balanced policies increasing access to digital information; and the encouragement of standards development and conformance. Building telecommunications infrastructure and technology to harness the benefits of the New Economy require policies and actions that target basic infrastructure and technology requirements. [We] call for the promotion of competitive, affordable and non-restrictive access for all and the development of reliable, fast and affordable non-IT services and distribution channels.

- **To enhance human capacity building and promote entrepreneurship**

[We] urge economies to take actions to improve human capacity building and promote entrepreneurship. It is vital to enhance human capacity building to establish a winning position in the New Economy. Entrepreneurship is fundamental to generating new ideas and developing new business opportunities. [We] encourage economies to develop innovation-oriented policies and promote the participation of SMEs in New Economy activities.

ICT has enormous potential to assist economies in achieving specific economic development goals. ICT's strength lies not only in the technology itself but also in ICT's ability to improve communication and enhance

information exchange.

As such, high priority should be given to: effective education and training services, fostering entrepreneurship and SMEs, strengthening technology cooperation and information exchange, enhancing user application of ICT and hastening closure of the digital divide.

### **3. Implementation of the Strategy**

[We] encourage economies to participate actively and contribute to concrete steps that will build on the action agenda of the e-APEC Strategy. In this regard, [we] instruct [our] Ministers and Senior Officials to superintend the process of deployment of the Strategy. [We] call on all APEC fora and mechanisms to cooperate and participate in the implementation of the Strategy.

In spite of the diversity and different developmental stages among the economies, [we] believe that, with the efforts of all the APEC economies, the e-APEC vision will be turned into reality. It will definitely facilitate spreading the benefits of the New Economy, and revitalize economic development beyond the region.

## **I. CREATE AN ENVIRONMENT FOR STRENGTHENING MARKET STRUCTURES AND INSTITUTIONS**

To maximise the benefits of the New Economy requires appropriate economic policies, good governance, transparent decision making and robust institutional frameworks. In fact, developments in the New Economy raise the cost to governments of not getting such economic fundamentals right. One of the main drivers of innovation, technology uptake and associated productivity gains has been the increased openness of markets that has encouraged not only global trade and investment flows, but also the diffusion of ideas and knowledge.

The OECD report - *New Economy: beyond the hype* - showed that a policy mix that strengthens economic and social fundamentals, facilitates diffusion of ICT and fosters innovation, investment in human capital and firm creation, is likely to bear the most fruit over the longer term.

The policy settings and actions necessary to maximise sustainable growth available from the New Economy include on-going structural reform, a sound macroeconomic policy framework, on-going regulatory reform, an effective competition regime, good financial and corporate governance, efficient venture capital markets, a sound legal framework for intellectual property and improved risk management.

### **A. Promote Economic Growth with a Sound Macroeconomic Framework**

Sound macroeconomic policies are as necessary to support and sustain “New Economy” activity as they are for more traditional economic endeavors. The potential for electronic transactions to cross multiple geographic boundaries and tax jurisdictions reinforces the importance in macroeconomic settings of tax neutrality whereby electronic transactions are treated no worse than traditional transactions and ensure there is no disincentive to trade and conduct business electronically.

Regarding customs tariffs, in 1998, the WTO recognized the importance of electronic trade and WTO members agreed to set up a work program and endorsed a moratorium on customs duties applied to transmissions over the internet. No precedence exists in the WTO for placing tariffs on electronic transmissions including telephone calls, facsimiles or data transmissions.

### **Goal**

- To create a sustainable economic growth environment with fiscal discipline and low inflation.

### **Actions**

- APEC Finance Ministers should continue their policy dialogue on key macroeconomic developments and policy responses, recognising the importance of on-going structural reform for continued macroeconomic stability;
- APEC members, through the Finance Ministers' process, should ensure that any taxation of internet services or electronic commerce is clear, consistent, neutral and non-discriminatory;
- Confirm the present WTO customs duty moratorium on electronic transmissions; and
- Commit to participate actively in WTO work on e-commerce.

### **B. Structural Reform**

The overriding aim of structural reform is to provide a flexible economic structure capable of taking advantage of emerging opportunities in the New Economy. Macroeconomic policies are important in providing stable environment for growth, but structural reforms directly drive productivity improvements, and at the same time make important contributions to macroeconomic stability. The concept of structural reform broadly includes all microeconomic reforms, and there for encompasses the issues set out in Sections II.C to II.H below. However, elements that stand out are trade and investment liberalisation, which acts as a catalyst for further reform, and labour market reform that is important for sustaining employment growth.

### **Goals**

- To stimulate higher productivity, including through trade and investment liberalization;
- To facilitate the entry and exit into the economy for firms and workers;
- To maximise efficiency-enhancing benefits from the use of ICT by allowing for greater flexibility in the allocation of labour and capital; and

- To promote more equitable sharing of the benefits of growth.

### **Actions**

- Facilitate structural adjustment by economies by promoting trade, e-commerce and investment liberalisation, and the progressive removal of subsidies and support programs in line with WTO agreements;
  - Continue efforts to improve the IAP process and to enhance WTO-related capacity building efforts.
- Strengthen social safety activity in APEC and encourage APEC Governments to ensure that labour market institutions and social policies provide the support and incentives needed to encourage mobility and assist workers to find new jobs and retrain.

### **C. Accelerate Regulatory Reforms**

The objective of regulatory reform is to guide market behaviour without undermining the incentives that yield private sector transformation of activities leading to productivity growth. An appropriate regulatory and legal environment will facilitate the expansion of e-commerce and new e-services as a profitable way of doing business. Member economies should work with all stakeholders to accelerate regulatory reforms. Continuing progress in opening economies to international trade and capital flows is essential for economic growth as is awareness of the need to adopt rules and practices to a constantly changing global environment.

### **Goal**

- To speed up reforms which encourage efficient and well-functioning product, labour and capital markets and supportive institutional frameworks

### **Actions**

- Encourage the on-going review of existing legal and regulatory frameworks and development of road maps by which regulatory agencies and industry can progress to early adoption of transparent regulatory systems using best practice, international standards and governance practices;
- Support and encourage joint government/industry capacity building

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programs to improve regulatory standards, transparency and governance practices; and

- Open public utilities to competition and privatisation.
  - Support the work of the APEC Privatisation Forum as a way of sharing experience and expertise on privatisation, including governance and the regulation of state enterprises.

#### **D. Financial Issues and Corporate Governance**

Well functioning institutions are essential in periods of technological change and also contribute to macroeconomic stability. Greater transparency, particularly of listed firms' information and performance together with greater investor protection would increase the availability of capital to develop the new economic environment.

##### **Goals**

- To establish deep financial markets operating with sound prudential supervision of both the markets and individual financial institutions so as to protect depositors, investors and insurance policy holders;
- To improve domestic and international financial architecture in ways that allow financial markets to operate transparently and efficiently and which respect key commercial principles;
- To improve corporate governance; and
- To ensure that appropriate regulations are implemented to address developments in the "New Economy".

##### **Actions**

APEC member economies, through the Finance Ministers' Process, should continue policy initiatives on financial issues as follows:

- Recognise the need to improve corporate governance
  - Continue APEC's work on corporate governance, including on insolvency law reform and financial disclosure.

- Share APEC experience and expertise and cooperate to build capacity in APEC members to establish and implement effective systems for supervising financial institutions which provides financial regulators with operational independence, adequate resourcing and sufficient skills to undertake their supervisory functions along with a sound legal framework and clearly defined regulatory standards.
  - Promote APEC-wide adoption of international best practice principles in supervising financial institutions and markets including:
    - : the Basle Committee's *Core Principles for Effective Banking Supervision* (1997)
    - : IOSCO's *Statement of Objectives and Principles of Securities Regulation* (1998), and
    - : the International Association of Insurance Supervisor's *Insurance Core Principles* (2000).
- Strengthen banking and financial regulations to world best standards including:
  - Continue APEC's efforts to promote strengthened surveillance measures; encourage APEC participation in the IMF/World Bank Financial Sector Assessment Program and Reports on Observance of Standards and Codes;
  - Regularise ABAC's survey of financial institution views on APEC reform efforts to help APEC economies to focus on issues to be covered in their ongoing financial reform agenda;
  - Develop the APEC Voluntary Action Plan aimed at encouraging freer and more stable capital flows;
  - Implement the recommendations from the Third Pension Fund Forum, particularly on education, funds management and good governance;
  - Study the completed set of recommendations from APEC economies' experiences in managing bank failures; and
  - Build on APEC success in areas such as training banking and securities supervisors and regulators, and the policy dialogues on key

standards pursuant to Part 2 of the Voluntary Action Plan initiative.

- Work to ensure that regulators have robust processes consistent with key international financial policy standards for licensing financial institutions including assessing ownership structure, board membership, senior management, capital adequacy requirements and powers to collect prudential data from institutions.
  - Implement the recommendations of the APEC Finance Ministers initiative on the provision of training and technical assistance for fighting financial crime in regulatory sectors
  - Improve corporate governance including encouraging the implementation of the recommendations of the *Better Company Accounting and Financial Reporting in APEC* report.
- Ensure regulators respond effectively to the New Economy that has empowered individual investors with the necessary fast and efficient capacity to trade securities.
  - Develop APEC efforts to build skills among financial and insurance regulators in New Economy investment issues such as the Initial Public Offering process, accounting and financial reporting, on-line trading and preserving investor confidence.
  - Further work by the APEC Working Group on Electronic Financial Transaction Systems (E-FITS) on issues related to electronic financial transactions.

## **E. Competition Policy**

Competition brings pressures to enhance efficiency and pursue new ways to do business especially through adoption of new technologies. Effective competition policy frameworks lower barriers to international trade and investment and contribute to economic growth and productivity. Improving the capacity of business and consumers to access local information and telecommunications infrastructure will enhance the uptake of ICT as well as ensure equality of access.

### **Goals**

- To increase efficiency and social welfare through a competitive market

structure and the expanded use of ICT;

- To ensure that the benefits achieved from trade liberalisation are not undermined by lack of effectively implemented competition principles/policies;
- To enhance trade through consistent competition laws/policies and their enforceability in cross border transactions; and
- To prevent erosion of the competitive position of developing APEC economies in the global economy by facilitating access to ICT and enhancing technical and capacity building initiatives.

### **Actions**

- Reduce barriers to competition and maintain an open policy stance for international trade and investment so as to reduce the costs of hardware, software and services, improve international standards and promote e-commerce
  - Continue APEC dialogue on the establishment of effective pro-competitive policies and institutions to provide a strong disincentive to anti-competitive conduct;
  - Support TEL's work to promote competition in regulatory structures, interconnection, internet development and related issues;
  - Implement the APEC Principles to Enhance Competition Policy and Regulatory Reform; and
  - Support the APEC Principles of Interconnection and the APEC Principles on International Charging Arrangements for Internet Services.
- Instigate APEC research, dialogue and cooperation on anti-competitive conduct between APEC jurisdictions, including via the internet.
  - Encourage interaction between competition/consumer protection agencies on anti-competitive practices be they of public or private origin.
- Build upon the information provided in the 'Summary Report on the

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Competition Policy and Law Database' which includes information on all APEC member economies' competition policies.

## **F. Venture Capital Markets**

Without a broad venture capital market, entry of new innovative firms will be impeded. Regulatory systems that restrict traditional types of investors such as pension funds and insurance companies from investing in venture capital and other equity markets and, hence, retard the development of such markets.

### **Goals**

- To eliminate factors which inappropriately impede risk-taking by financial or investing institutions and other sources of venture capitals;
- To facilitate the formation of businesses and the exit of firms;
- To establish a broad venture capital structure by deepening and diversifying capital markets; and
- To create a culture of enterprise and innovation which promotes growth in businesses and technologies.

### **Actions**

- Encourage reform of those regulations and fiscal provisions that inhibit the development of venture and high-risk capital markets and limit the supply of capital for early stage businesses and innovative undertakings.
  - Encourage individual Governments to consider recommendations in ABAC's 2001 Report to Leaders to establish second boards (to stimulate SMEs and venture capital), develop domestic bond markets, develop independent and credible rating agencies, encourage the growth of derivatives and hedging mechanisms and support for new international financing conventions, such as the draft Unidroit Convention on Financing Mobile Equipment.
- Consider APEC research to measure the performance of the regional venture capital industry.
- Foster the development of venture capitalist's entrepreneurial skills and

fund manager's investment skills.

## **G. Intellectual Property**

Digital technology presents unique challenges in terms of how creators of that information are protected. The growth of e-commerce and e-services requires development of a globally accepted, effective intellectual property regime that strikes the proper balance between protection for creative works on the one hand, and the preservation of access to information on the other.

### **Goals**

- To establish legal frameworks to promote creative endeavour and encourage on-line activity and the growth of the New Economy through addressing the challenges for intellectual property rights posed by the rapid development of new technologies;
- To ensure IPR systems maintain and promote a balance between different rights of owners and between the interests of copyright owners and users;
- To provide incentives for innovation whilst providing for the community's interest in reasonable access to information; and
- To establish an appropriate balance among all stakeholders, including content providers and ISPs, in terms of the liabilities for infringing intellectual property on-line.

### **Actions**

- Pursue APEC cooperation on IPR, primarily through the ongoing work program of the APEC Intellectual Property Rights Experts Group, to reduce uncertainty and contribute to innovation for the sound development of e-commerce through:
  - Encouraging APEC-wide implementation of the provisions of the 1996 WIPO Copyright Treaty and the WIPO Performance and Phonograms Treaty, Trade Related Aspects of Intellectual Property Rights (TRIPS), the Berne Convention and the Rome Convention;
  - Encouraging APEC-wide adoption of the standards and guidelines adopted in WIPO resolutions; and

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- Reporting in the relevant section of an economy's IAP on domestic conformance with standards set by international governing agreements (WIPO, TRIPS, Berne and Rome) as steps toward full and effective implementation and enforcement, when it is necessary.
  - Update domestic intellectual property systems to meet the needs of the digital environment, by APEC economies seeking to:
    - Include technology neutral provisions in relevant legislation to deal with rapid developments in new technologies;
    - Provide efficient and effective means for dispute resolution;
    - Ensure a balance of rights in the digital environment between the legitimate interests of rights holders and the interests of users in accessing creative works;
    - Ensure that the balance of rights is consistent, as far as possible, with the balance of rights in the non-digital environment;
    - Clarify in relevant legislation the liability of internet service providers regarding material communicated via their facilities;
    - Ensure adequate enforcement of intellectual property right systems through legislation and administration; and
    - Support copyright owners to 'help themselves' with technological measures through legislation preventing unlawful circumvention of such technological anti-piracy measures.
  - Develop capacity-building programs to implement effective provisions for domestic regimes.

## **H. Risk Management**

Policies to reduce uncertainty and enhance the efficiency of the price mechanism in allocating resources are conducive to higher GDP per capita growth.

### **Goals**

- To improve risk management by reducing the risk to capital flows and

equity raisings in emerging markets;

- To promote the functioning of effective risk pricing mechanisms; and
- To improve the use of risk management tools and understanding of the knowledge gap regarding the impacts the new economic environment will have on the shape and duration of the business cycle.

### **Actions**

- Utilise APEC capacity building programs to develop skills for fund managers in areas such as risk management and risk pricing so as to facilitate investment in New Economy businesses.
- Encourage APEC economies to reduce or eliminate interest rate and pricing controls and subsidies – direct or indirect – impacting on the pricing of risk.
- Recognise, under the Finance Ministers' Process, the impact e-commerce has on the speed of capital movement and that this can result in difficulties as well as deliver benefits.
  - Reduce the risks associated with cross-border capital flows and promote international financial stability by encouraging APEC-wide implementation of the Financial Stability Forum's recommendations on highly leveraged institutions, capital flows and offshore financial centers.
  - Continue APEC's provision of focused and targeted technical assistance to assist economies in implementing these recommendations.

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## **II. CREATE AN ENVIRONMENT FOR INFRASTRUCTURE INVESTMENT AND TECHNOLOGY DEVELOPMENT**

APEC members should aim to construct a policy environment to encourage competitive investment and widespread uptake of beneficial technologies.

APEC's work has shown key goals that join to build an environment conducive for growth in the New Economy.

- A legal and regulatory framework that gives the essential underpinning for business investment growth and consumer confidence.
- A competitive and robust network infrastructure that enables the advanced application of technology in modern business methods and enhanced societal transactions.
- A competitive market for the "Value Chain" of services that supports the effective initiation and completion of e-commerce transactions.

### **A. LEGAL AND REGULATORY ENVIRONMENT**

#### **1. Online Transaction Laws**

A predictable, simple and consistent legal framework will establish a basis for recognizing electronic transactions but must be compatible across borders. A successful commercial transaction requires that the people involved know that a contract exists, have certainty of what to expect from one another and understand what they can do to enforce the contract. In addition, all parties to a transaction must trust that the origin and content of online information is authentic and that the credentials and identity of the involved parties can be verified.

Electronic transactions require similar governance and new or adapted legislation may be necessary. The Model Law on Electronic Commerce developed by UNCITRAL is a proposed legal framework for considering these issues and for helping to harmonize their legal treatment worldwide.

#### **Goals**

- To ensure a clear-guided and transparent framework for ICT-related legislation and regulation.
- To promote confidence among users in engaging in on-line transactions.

### **Actions**

- Draw on the work of international organizations including WTO, WIPO, ITU, OECD and UNCITRAL to create compatible legal frameworks for the New Economy.
- Undertaking training programs to assist in the development and implementation of appropriate laws and regulations for electronic transactions.
- Seek an APEC position on a Global Internet Convention.

## **2. Electronic Authentication and Signatures**

Handwritten signatures have been accepted widely as binding evidence of commitments for business transactions. "Electronic signatures" which involve commonly recognized protocols are means for detecting digital forgery, and techniques for verifying the integrity of data files.

Overly technology specific regulation can impose requirements on "electronic signatures" that do not exist for handwritten signatures and seals and limit user choice.

### **Goal**

- To ensure that users have methods for authenticating a transaction that meets their business requirements and is acceptable for legal and evidentiary purposes.

### **Actions**

- Determine the attributes of a minimal framework to ensure the legal effectiveness of electronic authentication methods that are technology neutral.
- Finalize work to ensure existing laws recognize electronic signatures as having the same legal effect as handwritten signatures and seals.
- Demonstrate the value of giving users choice about the type of authentication technique, the ability to contract with a certificate authority of choice, and the level of security most appropriate to the underlying transaction.

- Encourage APEC economies to work in cooperation with the private sector to ensure that overly specific regulatory approaches do not impede cross jurisdictional transactions.
- Encourage APEC economies to work in cooperation with the business community to identify the range of market structures that may include accreditation or licensing schemes for certificate authorities.
- Support continuing work to develop legal and policy frameworks as outlined in the Issues for Consideration in the Preparation of Electronic Authentication Policies approved by APEC Telecommunication and Information Ministers.

### **3. Information Security (Infrastructure and Networks)**

Businesses, consumers and governments must be confident that the financial and other sensitive information they exchange during an electronic transaction is protected and safe from theft, alteration or misuse and that systems supporting the transactions are available to support those transactions.

The open and interconnected nature of the internet involves risks and vulnerabilities. Clearly threats to the underlying information infrastructure need to be addressed to prevent damage to economies, businesses and individuals. All stakeholders have an interest in an accessible internet where safe transactions are possible.

A secure environment will be supported by cooperative efforts of APEC economies that include cross-border discussions directed at identifying threats and vulnerabilities, investment in information assurance services and technologies, application of security tools (i.e. authentication systems and security processes), information sharing on prevention methods and technologies, cooperative research and development, and outreach programs to identify best practices and codes of conduct.

#### **Goals**

- To ensure the safety and security of those who use the internet.
- To foster confidence through market-driven solutions to electronic data security needs that provide the types and strengths of security solutions that allow consumers and businesses to meet necessary requirements.

### **Actions**

- Further progress in the TEL's work on the e-security training modules program and e-security workshops, PKI and information security.
- Enhance cooperation and coordination among APEC economies on information security including user communities, researchers, business and government entities.
- Encourage capacity building on information security.
- Promote user choice of encryption products and services to meet specific application needs.
- Educate users on their responsibility to ensure security of networks.

### **4. Personal Data Protection**

Individuals seek opportunities to exercise reasonable control over the collection and use of their personal data – online or otherwise. Choices sought by users include the desire to know how information is used and the ability to seek redress for misuse.

Economies that promote approaches to protect personal data are able to build trust and confidence in secure communication and information systems. Privacy protection can be targeted at specific categories of data. For example, more rigorous approaches can be implemented for situations involving personal medical data and a less stringent approach for data such as personal contact information. Moreover, international cooperation can help ensure that regulations in one jurisdiction do not become unnecessary barriers to electronic trade.

### **Goal**

- To enable individuals to select the nature and scope of the collection and use of their personal data in online transactions.

### **Actions**

- Raise awareness of commercial entities about approaches to the protection of personal data and the development of private policies.
- Identify in cooperation with the private stakeholders where self-regulation

and market based solutions can deliver necessary levels of protection for personal data.

- Determine models for informing consumers about privacy protection practices in use by commercial and government entities.
- Evaluate best practices to personal data protection to avoid obstructing the transfer of necessary data across borders

## **5. Consumer Trust**

Consumers only take the decision to transact online if they can feel confident that the desired transaction will be completed as expected. Consumer trust is not easily established without face-to-face contact and traditional national regulatory frameworks can be difficult to apply.

Electronic commerce means that consumer trust cannot be generated in the same manner as with traditional commerce. At the same time, the global and decentralized nature of electronic commerce also makes it much more difficult to utilize traditional national regulatory frameworks.

Economies have new and innovative approaches such as alternative dispute resolution (ADR) and other third-party mechanisms that can be effective in boosting consumer trust. They should refer to international principles related to electronic commerce. Furthermore, they can encourage businesses to undertake trust-building activities, such as self-regulatory quality labels and accreditation schemes. Ideally, labeling and industry codes would be complementary, and provide for mutual recognition.

### **Goal**

- To foster consumer trust and confidence in digital transactions and e-services.

### **Actions**

- Ensure the application of effective and consistent consumer protection laws and self-regulatory mechanisms (i.e. codes of conduct) dealing with issues such as information disclosure and redress in a manner that does not restrict competition and innovation.
- Investigate valid uses and characteristics of third-party mechanisms, such

as seals and trust marks, to enhance consumer trust and to encourage good online business practices.

- Implement e-Government initiatives and comprehensive personal data protection laws as ways to motivate consumer confidence in e-transactions.
- Build on the ECSG 2000 consumer protection workshop and foster collaboration among the private sector, consumer groups, civil society and governments, including the development of consumer protection principles.
- Draw experience from the use of Alternative Dispute Resolution (ADR), including mediation methods, to guide the adoption of these methods to electronic commerce disputes.

## **6. Access to Digital Information**

The growth of the internet raises questions about the balance between a completely unregulated flow of information, and restrictions in the interest of other societal objectives. Knowledge based economies thrive where there is openness and unimpeded access to new ideas and technologies. But some material can be harmful to some groups, for example material that is designed to incite hatred and violence against segments of society. Each economy faces a choice when devising domestic strategies.

Some economies face difficulty gaining knowledge and information from the internet because a substantial percentage of that content is in the English language. While content in Chinese, Japanese, and Spanish is growing rapidly, developing local content is essential to take full advantage of this medium as a way to communicate in the language and culture of respective economies. Therefore, developing local content is very essential, so that the advancement of information technology could be developed in an environment of the language and culture of respective economies.

Rules and regulations should avoid fragmented and incompatible requirements, so that they do not unduly complicate compliance in enforcement practices.

### **Goals**

- To generate, develop and enhance local content transmitted by

information technology through the introduction of local language character sets with a view to encouraging access to ICT for individuals and firms and facilitating their integration into the global economy.

- To enable unimpeded, legitimate electronic provision of information and to avoid creating fragmented and incompatible requirements that would hinder the use of electronic transactions and unduly complicate compliance and enforcement practices.

### **Actions**

- Ensure restrictions on harmful content are not detrimental to reasonable access to digital information.
- Catalogue where market-based technical solutions and consumer empowerment programs could be applied to discourage exposure to harmful and illegal information.
- Encourage the development and transmission of local content and local language services while ensuring that such efforts are not used as barriers to trade in services.

## **7. Standards and Conformance**

The development of standards needs to be a global, open process that should be flexible enough to encourage innovation. Along with official standards that are developed in the framework of international standards bodies, de facto industry standards should also be encouraged. Standards work should focus on open interfaces, which are necessary so that systems from different providers can interoperate, thereby encouraging competition.

### **Goal**

- To ensure widespread interoperability between different applications and technologies and avoid the creation of barriers between different groups of users.

### **Actions**

- Relevant APEC fora to report on steps taken to respond to the call by Ministers Responsible for Trade (MRT) in 2000 to devote greater attention to user requirements for open standards and systems in government interaction with business and the public to facilitate interoperability;

- Encourage APEC economies to endorse the consistent adoption of international market driven standards for interoperability among systems as developed by expert international bodies with private sector participation;
- Support accelerated participation in the APEC Mutual Recognition Agreement (MRA) on Conformity Assessment of Telecommunications Equipment to facilitate trade and encourage standardization; and
- Encourage all relevant APEC fora to consider the review of electronic commerce standards contained in the comprehensive report “*APEC E-business; what do users need?*”

## **B. INFORMATION AND TELECOMMUNICATIONS INFRASTRUCTURE AND TECHNOLOGY**

### **1. Basic Infrastructure and Technology**

Telecommunications and information infrastructure underlies all electronic transactions and enables the New Economy. Users experience the applications that ride on this infrastructure, and depend on reliable infrastructure to make possible timely connections at affordable rates. The infrastructure operates through multiple wired and wireless networks, and includes end-user devices. Different users and different applications have unique infrastructure and technology requirements.

The information technology equipment, computers, servers, digital wireless phones, etc., along with the necessary software, need to be widely available at internationally competitive market-based prices. The value of a telecommunications network for users is increased when it is interconnected with other networks. Networks need to be fully interoperable with guaranteed interconnections to maximise user value.

### **Goals**

- To promote infrastructure and ICT markets that give non-restrictive access and affordable options for users;
- To achieve affordable access to ICT particularly in developing economies;
- To encourage investment in high bandwidth networks to increase capacity

and transmission speeds; and

- To encourage competition in infrastructure provision to ensure low-priced access to ICT infrastructure and to enhance its use.

### **Actions**

- Continue APEC endorsement of individual economy efforts to liberalise telecommunications markets, modernise regulatory structures to accommodate converging technologies and services and remove impediments to private sector participation in the provision of high-speed communication services.
- Support continued discussion between business/private sector and governments on the development of markets in the provision of internet services among APEC economies, consistent with the APEC Principles on International Charging Arrangements for Internet Services.
- Aim to expand the work of the APII by supporting the connection of research networks among APEC member economies to test the inter-connectivity and inter-operability of broad band test beds and to conduct joint R & D efforts in IT application services.
- Recognizing the global pattern of opening and liberalizing telecommunications markets, identify remaining barriers to market entry for infrastructure and service providers. Unnecessary barriers in the form of approvals and licensing affecting the availability of the IT product in the market should be removed as far as practicable.
- Study TEL work and experiences of economies and discuss principles of regulatory bodies that are separate from any supplier of basic telecommunication services and that are separate from the telecommunications policy-making authority.
- Study the effects of subsidies for infrastructure and service providers, and inequitable regulatory treatment on competition in telecommunications markets and the ultimate prices paid by end users.
- Endorse the prompt completion of implementation of the WTO Agreement on Basic Telecommunications, and encourage the adoption of the GBT Reference Paper. Recommend the adoption of these principles by non-members of the WTO as they work towards WTO accession;

- Endorse the accession of all economies to the WTO Information Technology Agreement, including the adoption of ITA provisions by non-members of the WTO.

## **2. Access to Information and Telecommunications Services**

Access has two main components, on the supply side, competitive access by infrastructure technology/equipment, electronic commerce and internet service providers; and on the demand side, affordable, reliable, and sustainable access for all users, whether individuals, schools, government organizations, libraries, businesses and so on. The correct investment climate and economic and social policies will maximize the private sector's ability to provide access for all.

APEC's work shows that the level of access varies among local populations based on income, education, gender and location, among other factors. Competition and liberalization are essential policies to lower the price of access and increase effective demand among all user groups. These policies in a coherent investment climate enhance the private sector's ability to provide access for all. Government has an important role to play in demand creation by bringing government programs and services on line, and in education and training and supporting demand by those groups outside the market. Effective government programs are characterized by leadership, partnerships, policy coherence, consistency with market forces and ensuring sustainability of demand.

### **Goals**

- To develop indicators of the levels of access and ensure that all groups within an economy have access individually or through community-based services to the internet by 2010. As a first step toward this goal APEC aims to triple the number of people within the region with individual and community-based access by 2005.
- To establish a facilitative investment climate, and economic and social policies that will maximize the private sector's competitive provision of access.
- To encourage cooperation between governments and the private sector to supply sustainable supply models to underserved communities.

**Actions**

- Continue to develop the policy framework to encourage investment, competition and lower prices for internet services and government policies that increase the availability of education, training, and support for underserved groups.
- Work with the private sector to address gaps in the basic infrastructure in remote and underserved areas and share economy experiences and information regarding access for all.
- Share information on cost-effective provision of services to underserved areas, especially remote communities.

**C. THE NEW ECONOMY VALUE CHAIN SERVICES****1. Non-IT Services and Distribution Channels**

The New Economy requires a number of support services provided by business and government, such as access to the infrastructure, efficient transport, express delivery services, efficient customs, and capable banking and payment systems. The development of the IT infrastructure cannot compensate for a lack of development and liberalization of the “traditional” business services and distribution systems. To drive the benefits of the New Economy, supporting services and distribution must be reliable, fast and affordable. Removing barriers in key areas such as logistics and transport, customs, and delivery sectors can improve the pace of economies’ participation in the New Economy.

Both consumer and business e-commerce transactions are dependent on specialized support to enable international transaction settlements. Consumer transactions are at present dominated by the use of credit cards as the most convenient payment method. Many new electronic payments systems and technologies are under development and in trial. The regulatory environment for support services, including advanced payments systems, should facilitate access by business and consumers to a competitive market in these services.

The internet raises business and consumer expectations by allowing goods and services to be offered real-time on a global basis. These expectations include a problem-free experience that will provide a complete solution from order entry and confirmation to payment and delivery. The regulatory environment that emerges should facilitate access by business and

consumers to a competitive market in these services.

### **Goal**

- To establish reliable, fast and affordable supporting services and distribution systems by removing barriers to logistics and transport, customs and delivery services.
- To ensure the availability and usage of appropriate electronic systems to facilitate the efficient and effective working of these support services.

### **Actions**

- Report on implementation steps for effective services to support the New Economy through appropriate APEC fora including customs procedures, transport services, standards and conformance, and payment systems and business mobility.
  - Consider adding other support services such as advertising, video distribution, computer services and educational services.
- Identify necessary distribution services for effective and timely delivery of goods in the New Economy.
- Analyze developments in sea and air container tracking and tracing technology in the APEC region and undertake case studies, which examine the application of these technologies and their integration across supply/demand chains between economies.
- Prepare paperless trading individual action plans for submission to the October Leaders Meeting for ultimate review by the MRT in 2002.
- Provide competitive transportation infrastructure and continue to develop for voluntary implementation by economies, recommendations for more competitive air services with fair and equitable opportunity.
- Draw recommendations from pilot studies on paperless trading implementation and post lessons learned on the internet.
  - Explore adding pilot projects building on APEC work in the Shanghai Model Port Project, such as customs, air express and intellectual property to demonstrate efficiencies.

- Review how APEC fora has responded to 2000 MRT call to develop capacity building programs to assist economies to implement paperless trading.
  - Explore adding training projects building on APEC TPT-WG work providing face-to-face and online training over the internet to the transport industry on electronic commerce.
- Enhance the transparency and quality of government services through promoting e-government.

### **III. ENHANCE HUMAN CAPACITY BUILDING AND PROMOTE ENTREPRENEURSHIP**

Enhanced human capacity building and entrepreneurship are fundamental to maximising the benefits of the New Economy. Achieving these objectives requires an improved awareness and appreciation of ICT, and will involve APEC economies in encouraging and developing innovation-oriented policies and promoting the participation of SMEs in New Economy activities.

ICT has enormous potential to assist economies in achieving specific social and economic development goals, and can play a key role in broader development strategies. Its power lies, not only in the technology itself but also in ICT's ability to create influential social and economic networks, dramatically improving communication and enhancing information exchange.

The *Beijing Initiative on APEC Human Capacity Building* (2001) indicates that human capacity building must be integrated into the economic and social strategies of APEC economies. The World Bank has concluded that a holistic approach to policy development and integration will be crucial in ensuring that the digital divide does not remain one of the greatest impediments to development.

#### **A. Addressing the Digital Divide**

Many factors contribute to the unequal distribution of ICT applications among various APEC economies. Disparities in infrastructure, connectivity costs, knowledge, capital, technology, human resources and education are influential forces which result from differences in cultures and traditions, different stages of economic development and varying levels of understanding.

Inequality of access to ICT between developed and developing economies, or within an economy, is an essential feature of the digital divide. In sparsely networked regions, where access to the internet is limited, growth and development are likely to be delayed. The key to narrowing digital divide is allowing all the people to have easy and affordable access to ICT. A rapid transition toward "digital inclusion" for everyone is crucial in ensuring maximum development potential. Moreover, a comprehensive and holistic approach is the most effective way to benefit from available synergies and to ensure the impact of ICT deployment is optimised.

#### **Goals**

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- To transform the digital divide into a digital dividend in order that APEC economies benefit from the opportunities presented by a networked environment; and
  - To prepare APEC economies and all of our people to use the information revolution to as a passport to the New Economy.

### **Actions**

- Enhance work to complete the TEL's Digital Divide Blueprint for Action to address digital divide issues identified by Leaders in Brunei;
- Further work to implement OAA (1995) Telecommunication and Information Common Policy Concepts in promoting diversity of content in the internet, including cultural and linguistic diversity;
- Enhance the construction by economies of appropriate information infrastructure, including setting up cyber kiosks;
- Encourage economies to make greater investment in ICT education;
- Encourage the APEC Knowledge Clearing House initiative to facilitate experience sharing among developed and developing economies;
- Encourage implementation of the outcomes of the UNDP's Digital Opportunity Initiative to assist APEC economies to develop ICT strategies and comprehensive frameworks to use and deploy ICT, including
  - Adopt policies to facilitate the spread of internet enabled wireless communications; and
  - Promote activities to encourage experience-sharing and practical application of ICT experience;
- Promote the APEC-wide adoption of the recommendations in the Asian Development Bank's 2001 strategy "Toward e-Development in Asia and the Pacific" to promote growth and development and reduce the uneven access to the internet;
- Promote on-going work within APEC to identify policy attributes that support and undergird successful ICT access and rollout environments;

- Capitalize on programs relevant to the region such as the G8, Dot Force, GBDe, and the e-ASEAN initiative to create a knowledge network as a resource for examining digital opportunities and policy positions to link ongoing resources and contacts in APEC economies to expand digital capability and skills; and
- Consider development of a network of Skill Development Centers (SDCs) and programs across the Asia Pacific region, in close collaboration with the business/private sector.

## **B. Building People's Capacities**

In order to establish a winning position in the New Economy, it is vital for APEC to develop a society and culture that honor education and training. Enabling economies to access knowledge-based prosperity, will involve governments and other stakeholders in providing comprehensive, high-quality education and training and skills development programs including basic education and distance learning. APEC economies should recognise the importance of ICT as a core competency for teaching and learning programs across APEC economies.

### **Goals**

- To maximize access to high quality education, life-long learning and training through strong partnerships between governments, academic and business communities;
- To develop human resources capable of responding to the demands of the New Economy;
- To promote the development of skills to use the internet, especially for disadvantaged groups in society; and
- To utilize new learning technologies and practices provided by ICT.

### **Actions**

- Continue efforts to achieve basic education for all;
- Continue APEC's efforts, as emphasized by the directive to share strategy on the "Best Uses of IT in Education" from Education Ministers, including regional development programs, in promoting quality education, with ICT

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emphasis, sharing information on challenges, opportunities, and developments including distance learning;

- Support the continuation and expansion of the EDNET project, Use of IT in a Learning Society: Exchanges and a Web Portal.
- Refine teaching capabilities, provide wider training opportunities, strengthen life-long learning, and cyber-education;
  - Encourage greater utilization of the APEC Education Foundation as a vehicle for advancing cyber education;
  - Support the APEC Cyber Education Cooperation Consortium, including the establishment of a web portal on teaching;
  - Initiate programs that utilise ICT to improve the quality of curricula, teaching methods and instructional materials;
  - Encourage the development of programs to increase computer literacy amongst teachers and students, internet utilization and ICT-based education in APEC economies;
  - Encourage the development of web-based language learning programs that include web-based instruction and direct communication; and
  - Encourage the development of effective vocational training programs that enables the workforce to face the rapid changes faced by industry;
- Further work on special training programs sponsored by APEC economies and other organizations;
  - The Japanese funded ADB program for IT-related training;
  - The World Bank/Australia's "Virtual Colombo Plan" initiative on distance learning;
  - The APEC Youth Internet Volunteers Program and other plans and programs to encourage knowledge sharing, teacher exchange and cyber-education cooperation; and

- Digital learning projects led by industry.
- Encourage APEC economies to adopt and implement closer public-business partnerships to invest in education and bring innovative ideas and resources into the education system to improve access to, affordability, and the quality of education;
  - Maximise the opportunities provided by ICT to deliver quality distance, technical and vocational training and tertiary programs as well as improving the efficiency and effectiveness of scientific research networks and educational administration; and
  - Encourage broader information-sharing by APEC symposia in the areas of New Economy education, human resource development and internet-based skills.

### **C. Cooperation and Information Exchange**

ICT has dramatically improved communication and information exchange, and has created and strengthened new economic and social networks. APEC economies must broaden cooperation to redress imbalances in ICT distribution and to harness the social and developmental benefits of the New Economy.

Using ICT to pursue development contributes to broad-based economic growth and specific development goals, and enables economies to distribute the benefits to all levels of the community.

#### **Goals**

- To overcome the social, economic and regional inequalities in the distribution of knowledge; and
- To foster cooperation, dialogue and consensus, so that all sectors of the community may work together to maximise the potential benefits of the New Economy.

#### **Actions**

- Develop best practice examples and menus of policy options to enable all APEC economies to promote social development through regional ICT expertise and resource sharing;

- Encourage APEC economies to participate in the policy coordination on public internet resources governance, including activities of the Internet Corporation for Assigned Names and Numbers Government Advisory Committee (ICANN GAC);
- Ensure more extensive technical cooperation;
- Foster social inclusion of all sectors of the community in the New Economy by encouraging the establishment of mechanisms such as:
  - Multipurpose telecenters, community multimedia centres, distance education and skills building courses directly aimed at improving livelihood activities in the community;
  - Expanding access to telecommunications and information systems to impoverished communities through projects such as the ADB's Grameenphone Telecommunications Project; and
  - Using ICT to enable health networks to extend medical services to a wider community and to address basic health issues;
- Promote networking amongst skill training providers within APEC economies toward mutual support and sharing of resources and experiences; and
- Strengthen cooperation with other organizations including the World Bank and the Asian Development Bank.

#### **D. Entrepreneurship**

Entrepreneurs play a key role in generating new ideas, developing new technologies, and bringing new products into the marketplace in a cost-effective manner. ICT provides increased scope for entrepreneurs to create innovative products, pioneer new markets and to drive forward economic development and social evolution.

Fostering enterprise and innovation requires a consistent, predictable and transparent legal structure and a tolerant and supportive social environment. Developing an environment that stimulates innovation and enterprise is a major task for government.

### **Goals**

- To create an environment for encouraging enterprise and innovation to promote growth in business and new technologies; and
- To foster the development of innovation systems and venture capitalist's entrepreneurial skills.

### **Actions**

- Encourage APEC to develop Best Practice Guidelines for Entrepreneurship and Start-up Companies;
- Develop a series of best practice examples to promote entrepreneurship in APEC economies; and
- Encourage setting up of policies to facilitate financing for entrepreneurs to start businesses;
  - Increase opportunities for young entrepreneurs from APEC economies to share experiences for innovation, entrepreneurship and trade and investment; and
  - Share experience on various APEC economies' innovation systems.
- Have the SME Work Group work on further development of PEC and ABAC's call for the development of a "scorecard for entrepreneurship".
- Improve the basic infrastructure and technology by expanding bandwidth with greater accessibility and speed to rural areas and SMEs industrial park.
- Encourage more activities in e-commerce such as order application, delivery, processing sales order and procurement, and electronic sales transactions, which are currently not widely used, as these applications require a substantial amount of investment.

### **E. SMEs**

SMEs are central to the economic development of APEC economies. Developing SMEs is a priority in promoting employment and growth, particularly for developing APEC economies. SMEs and Micro-businesses are well-springs of creativity and innovation, and their success is essential for

sustained economic growth of the APEC region.

The internet boom and the rapid diffusion of internet technology has given SMEs new opportunities to enhance their competitiveness and expand market access. SMEs are benefiting from new opportunities to enter the global marketplace and compete with large companies, and their importance in the emerging New Economy has been underscored.

### **Goals**

- To create a competitive environment for SMEs in terms of market entry, cross-border trade and financial/tariff policies with more opportunities to promote their business; and
- To create a pro-SMEs environment for utilizing external resources in lower cost.

### **Actions**

- Take steps to set up an APEC-wide mechanism for sharing information on startup enterprises, venture capital and capital markets;
- Make financial and capital markets more accessible to SMEs;
- Increase transparency in rules and regulations, and provide information and business contacts to SMEs, including through e-government initiatives;
- Provide avenues for SMEs to improve their knowledge and skills through participation in APEC Human Capacity Building programs;
- Promote strategic alliances between large firms and SMEs, on the one hand and strategic alliances among SMEs such as through industrial clusters, on the other hand, in the area of supply chain management;
- Increase the involvement of SMEs in relevant projects across APEC fora; and
- Prepare SMEs to remain productive in the face of rapid economic and technological changes;
  - Consider the establishment of an APEC SME portal linked to the

APEC Website.

## **F. ICT Applications**

A key element for the success of enterprises in the New Economy is the ability to effectively utilize ICT. ICT offers firms or individuals numerous opportunities to develop new ways to do business and results in reduced costs and improved efficiency. ICT also facilitates the transaction of business across geographical boundaries using innovative business models and the creation of new industries.

ICT can also provide opportunities for developing economies to make rapid economic progress and leapfrog stages of economic development, through increases in productivity, promotion of exports, improved markets and high-quality government services.

### **Goal**

- To promote the extensive and effective utilisation of ICT technology within APEC region.

### **Actions**

- Encourage greater application of ICT in traditional industries and SMEs to improve their economic performance;
  - Further develop APEC SME e-commerce training programs;
  - Progress the recommendations of the TEL Report, *APEC e-Business: What Do Users Need?*; and
  - Continue TEL vendor training programs;
- Build confidence in the use of ICT for business and consumers;
- Encourage more organizations, enterprises and individuals to acquire or exchange information via ICT;
- Encourage the electronic exchange of documentation for trade transactions by implementing APEC's paperless trading action plans;
- Encourage the active participation of enterprises in the e-marketplace and

global market and support e-commerce development programs for enterprises; and

- Encourage joint public and private sector and APEC wide activities to provide new opportunities in the ICT industry.



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