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THE FEDERAL SOURCE FOR YOUR GLOBAL BUSINESS NEEDS

Exporting Environmental Technology When Business and the Planet Both Profit



INSIDE:

Trade Mission to Chile and Peru

Market in Brief: Finland

The Trade Act of 2002





The SABIT Training Program

Providing Grants to Facilitate Public-Private Partnerships with Eurasia

With funds authorized by the U.S. Congress, the **Special American Business Internship Training Program (SABIT)** is a joint U.S. Department of Commerce-private sector initiative to promote market access and to catalyze economic development in Eurasia—Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. Balancing the technical assistance needs of Eurasia with the interests of the U.S. business and scientific communities, the program offers competitive grants to American companies, industry associations, technology transfer and commercialization institutions, non-governmental, and other organizations.

The **SABIT Grants Program** provides hands-on professional training in U.S. business practices to individual English-speaking managers and scientists at a U.S. company or institution for a period of 3-6 months. The Grants Program is ideally suited for small and medium-sized businesses that are new-to-market exporters or first-time exporters looking to establish long-term relationships with potential customers, distributors, or partners. Participating U.S. organizations have the choice of either nominating a candidate from their existing Eurasian business contacts or working with SABIT to identify a qualified candidate. Structured as reimbursable awards, SABIT grants cover:

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- \$34 per diem for trainee.
- Up to \$750 per month for housing costs.

SABIT accepts applications on a rolling basis once a year. Interested organizations apply after an announcement of fund availability is published in the *Federal Register*. The next funding round will open in December. As a service to its clients, SABIT sends a postcard and an e-mail message announcing the opening of the funding round to those organizations listed in its database. *If you would like to be included in SABIT's database, please sign up at www.mac.doc.gov/sabit or send an e-mail to Wesley_Schwalje@ita.doc.gov.*

With funding to date of \$40 million, SABIT has emerged as a leading technical assistance provider driving public-private partnerships between the U.S. and Eurasian scientific and business communities. Providing a unique low-cost, low-risk opportunity to facilitate cross-border cooperation with Eurasia, SABIT helps American organizations form relationships with potential customers, distributors, or partners, who can assist in facilitating profitable international transactions. Since 1990, over 1,000 organizations have hosted over 2,500 trainees through SABIT. The linkages formed through SABIT have helped to facilitate over \$220 million in export revenues.

More information about the application process and how organizations have used the SABIT Grants Program to achieve real world results in Eurasia can be found at www.mac.doc.gov/sabit.

EXPORT America

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NEW OPPORTUNITIES



Exporting Environmental
Technology: When Business
and the Planet Both Profit 22
by William Corley

Global Environmental
Technologies: Trends,
Markets, and Prospects 24
*by the Office of Environmental
Technologies Industries*

Renewable and Efficient
Energy Exports: An
Assessment through 2012 28
by the Energy Division

VIEWPOINT

Peace through Trade: Laying the Foundation for
Freedom and Prosperity 4
by Grant Aldonas

GLOBAL NEWS LINE

Briefs on Norway, Sweden, Spain, Italy, the Czech
Republic, Ukraine, and Australia 6
Prepared with the assistance of the U.S. and Foreign Commercial Service

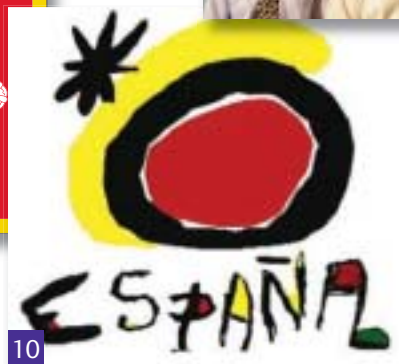
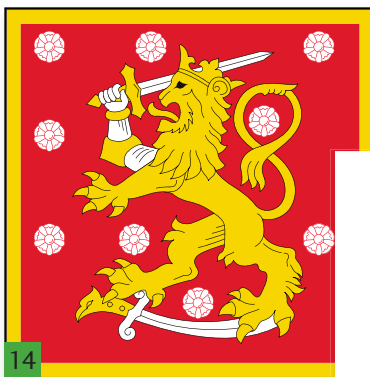
SUCCESS STORIES

Training Doctors across Borders: Atlanta Company
Goes Global with BuyUSA.com 8
by Erica Guries

The Right Tools for Tapping World Markets: 9
Award-Winning Exports from the Factory Floor
by Curt Cultice

NEWS FROM COMMERCE	
Sunny Spain: Bright Outlook for Trade <i>by the U.S. Commercial Service, Spain</i>	10
Latin American Markets Ripe for Trade: Secretary of Commerce Leads a Trade Mission to Chile and Peru <i>by the Office of Business Liaison</i>	12
MARKET IN BRIEF	
Finland: Northern Lights on American Exports <i>by William Corley</i>	14
TECHNICAL ADVICE	
Ask the TIC: Making the NAFTA Work for You <i>by Patterson Brown</i>	18
The Trade Act of 2002: What Does it All Mean? <i>by Erin Mewhirter and Michael Fullerton</i>	20
INSIDER'S CORNER	
Upcoming Trade Events: November 2002–June 2003	30
Quarterly Trade Data: As of Second Quarter 2002 <i>Prepared by the Office of Trade and Economic Analysis</i>	34

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The complexities and challenges of our natural world have always required explanations and solutions.

This is ever more true with the accelerating globalization of societal and economic development. Our growing populations and expanding markets threaten the world's natural environment with soil erosion, air pollution, and water contamination, among other forms of degradation. Increasingly, both the environment and the economy remind us that we live in a large and global community, no matter how small and isolated our local societies may be.

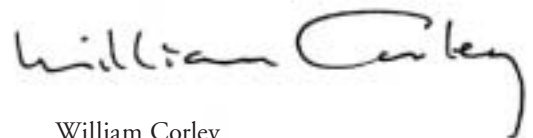
Yet as environmental challenges multiply, modern technologies offer many possibilities, such as disease prevention, pollution cleanup, waste recycling, and ecological preservation. While human progress has damaged nature and reduced resources, it has also led to the development of products and services that address many of our environmental concerns.

It is not surprising, given the world's growing emphasis on economic development linked with ecological issues, that environmental technologies constitute a booming global market. U.S. companies play a major role in this market due to highly competitive exports. In some cases, as we outline in this issue, U.S. technology dominates an environmental sector or market, because U.S. firms produce equipment unavailable from other suppliers.

In examining global environmental technologies, we have summarized export trends, markets, and prospects. We look at a wide range of products and services in leading environmental fields, including water and wastewater treatment, environmental instrumentation, and special equipment. In addition, we offer an overview of renewable and efficient energy exports. Overall, we sought a balanced presentation of export opportunities and successes.

This month we also examine our global community in other broadly environmental ways. Finland, 70 percent of which is covered by forests, is the subject of our latest Market in Brief. It is probably no coincidence that this sophisticated market has a highly developed forest-products industry, an environmentally aware populace, and many high-tech opportunities (including environmental technologies). Likewise, we highlight opportunities in Spain, including environmental protection and renewable energy. We also assess the Trade Act of 2002 as well as the relationship between trade and peace.

Join us next month for a look at the Baltic Sea region and a variety of opportunities throughout Asia and Europe. We will strive for a relatively balanced approach—and not just in environmental terms.



William Corley
Associate Editor/Writer





Peace through Trade

Laying the Foundation for Freedom and Prosperity

by Grant Aldonas

Under Secretary of Commerce for International Trade

When Americans consider their freedoms, they rarely count free and fair trade among them. Yet, trade is firmly embedded in the foundation of a democratic and free nation. President Herbert Hoover, who served as the first secretary of commerce, emphasized this point in reminding Americans that, “Free speech does not live many hours after free industry and free commerce die.” The inverse is equally true. With free commerce comes free expression, and with free expression comes pressure on governments to protect the freedoms we enjoy.

THE BENEFITS OF TRADE

For 200 years, trade has been an economic engine helping the United States meet the needs of domestic businesses, workers, and consumers. Throughout history, we have pursued new markets for American goods, services, and technology; sought the import of a greater variety of goods at lower prices; and encouraged competition and a free market economy. Our efforts have proved fruitful, leading to sustained economic growth, higher wages, more jobs, and a higher standard of living.

While the economic impact of trade is apparent, trade also serves as the foundation of the institutions that define our democracy. At its root, trade is about human freedom—the freedom to interact, innovate, and exchange goods and services without interference

from the state. Amartya Sen, a Nobel laureate in economics, concluded in *Development as Freedom* that the basis for all economic development is human freedom, including the freedom from any limitation on human potential. The expression of human freedom through trade gives workers limitless possibilities for sharing the product of their toil with the outside world. It allows companies to expand, increase employment, and innovate, providing people greater economic security, stability, and opportunity. As people experience greater economic opportunity, poverty decreases, and with it, the desperation and hopelessness that lead so many to express their frustration through violence and terrorism.

INSTITUTIONALIZING PEACE

Although it is clear that trade creates the conditions necessary for peace, it also helps create and reinforce the institutions and framework that sustain it. Nations that seek to fully realize the benefits of trade must ensure that their domestic infrastructure sufficiently supports free commerce. As a result, they work to enact a strong rule of law, democratic institutions, independent judiciaries, reliable regulatory agencies, dependable law enforcement, and efficient banking and social services. These improvements, in turn, encourage transparent regulatory bodies, a sound tax and pension base, fiscal responsibility, privatization, competition, and improvements in education and health care. Taken together, these

reforms can stabilize nations, making them more able to participate in world affairs.

Furthermore, as economies become increasingly interdependent, we find that the benefits of trade are shared across geopolitical and geographical boundaries. Nations that recognize how dependent they are on one another are less likely to settle frictions through armed conflict. Instead, trading nations are more inclined to resolve conflict through negotiation and compromise. The British poet John Donne is known for having written, “No man is an island; every man is a piece of the continent, a part of the main...” This is certainly true in the case of international trade. Recognizing that each nation is a single member of a greater global community increases the opportunities and rewards for peaceable exchange and interaction.

Trade cannot be solely characterized as the exchange of imports and exports. It is not simply defined as the pursuit of economic growth and opportunity. Instead trade is about the exchange of ideas, the pursuit of happiness and prosperity, and the fostering of innovation and ingenuity. It is about the freedom to choose, to associate, to explore, and to grow. It empowers people and uplifts the human condition. Trade is about the perseverance of democracy, freedom, and liberty—the fundamental principles and conditions that found and sustain peace. ■

GLOBAL NEWS LINE

NORWAY

It is predicted that by 2006, 166 million people will use the Internet as their main mode of telecommunications. Internet protocol (IP) technology transmits multimedia data through local networks or the Internet and can lead to significant cost reductions for users.

The technology is built on an industrial standard, meaning that a customer easily can switch components from one brand to another. While some countries have forbidden the use of IP phoning, Norway has opened up use of the new technology, which is expected to create opportunities for companies that provide the service or related technology.

An increasing number of Norwegian companies and organizations are operating with local IP networks and thus reducing their phone bills drastically. The technology is especially attractive for companies that operate internationally, since all phone calls within the company can be done at a fixed rate. At the same time, the number of local switchboards can be reduced. There are further cost reductions related to system maintenance, as companies can combine their phone networks with their existing IT networks. In addition to private companies, several Norwegian municipalities and hospitals have invested in IP networks. It is estimated that 50 percent of all new telecommunications purchases in Norway are IP based.

SWEDEN

Special diet foods for dogs and cats are a hit. Local manufacturing and imports have doubled in two years. Swedes spent some \$260 million on dog and cat food last year.

There are approximately 1.1 million cats and 750,000 dogs registered as pets in Sweden. Pets in Sweden have definitely acquired "family member" status. Household purchasing habits

indicate a strong trend toward specially prepared and packaged pet foods.

The trend in pet food is closely linked to trends in society in general: diet products, health and lifestyle products, and ready-to-eat foods in meal-size packaging. The family cat now gets fresh food at each meal—hence the popularity of small portions in bags, which eliminate odor problems from opened tins.

Consumption of dog food increased by 7 percent, 1999–2000. Pet owners are increasingly interested in purchasing specialized foods for shiny fur, stronger teeth, or overall improvement of the pet's health.

SPAIN

The Spanish insurance industry ended 2001 with a 2.7 percent increase in the volume of premiums.

This increase was mainly due to the life insurance sector, which increased 15.5 percent in managed savings. Collectively, the non-life insurance sector grew 8 percent in real terms. The industry generated revenues of approximately \$42 billion, of which 54.3 percent was life insurance, and 45.7 percent other kinds of insurance. The insurance industry accounts for approximately 6.5 percent of Spain's GDP, 3.5 percent of which is life insurance.

Within non-life insurance, automobile insurance, which represents 47.4 percent of the sector, increased 13 percent to \$9 billion. Health insurance represents 15.4 percent and generated estimated revenues of \$2.9 billion, an increase of 8.2 percent. Multi-risk insurance grew 14.6 percent against the previous year, with revenues of \$2.8 billion. Changes are expected to take place in the non-life insurance





market as temporary insurance linked to loans increases.

ITALY

According to recent market research conducted by Bocconi University, the musical instrument market in Italy is on the rise. Revenue of the Italian musical instrument market in 2000 totaled €334 million (\$330 million), a 9 percent increase over 1999. This positive trend is expected to continue at an even higher rate, due to both the increasing interest in musical activities and new music education programs planned for public schools by the Ministry of Education.

Imports play a major role in this market. In fact, foreign companies dominate the Italian market; they held a 75 percent share of the musical instrument market in 2000.

American producers are considered the best for guitar products. Most of the guitars sold in Italy are imported from the United States. U.S. products have a very good reputation in this market for other instruments as well, and this puts American companies in a good position to boost sales.

American musical products enjoy a reputation of innovation, high quality, and sophisticated technology. The Italian musical instrument

market has great growth potential for U.S. companies.

CZECH REPUBLIC

In 2001, more than 2 million Czechs, or 20 percent of the total Czech population, vacationed abroad. Of these, 700,000 people used the three largest Czech travel agencies: Fischer, Cedok, and Firo Tour. Other travelers tapped the services of the remaining 1,097 travel agencies.

It is anticipated that German travel agencies will aggressively expand in the Czech travel and tourism market next year. They will probably introduce lower prices with which Czech travel agencies will not be able to compete successfully. There will be, however, a niche market for small, specialized travel agencies.

UKRAINE

Experts estimate the market size of Ukrainian book publishing at \$120 million, or 80 million books per year. The share of this market that belongs to Ukrainian publishing companies is 35 to 38 percent, or 28–30 million books. The rest of the market belongs almost exclusively to Russian importers. Sales of Russian importers of books total \$70–100 million.

There are approximately 3,000 registered publishing companies in Ukraine. However, 250 publishing companies that publish 25–27 million books a year, or 90 percent of the total, determine trends in the book publishing market. The relative share of single companies is rather small. The individual market share of each of the three biggest Ukrainian book-publishing companies does not exceed 3 percent.

The main obstacles to the development of the book publishing industry in Ukraine lie in high taxation (i.e., 20 percent VAT and high profit tax) and legislation that limits foreign ownership to a minority share not exceeding 30 percent. In the meantime, Russian importers, who enjoy a much more favorable taxation regime, are slowly taking control of the market.

Reportedly, Russian investors control 10 to 13 percent of the Ukrainian publishing industry. The Ukrainian Parliament is currently reviewing a draft law designed to support the book publishing industry by reducing tax rates and removing restrictions on foreign ownership. This draft law, when approved, will open doors for foreign investors and importers interested in this market.

AUSTRALIA

The Rugby World Cup 2003 is the third-largest sporting event in the world, after the World Cup and the Olympics. Like other large sporting events, the Rugby World Cup 2003 also is expected to bring in many business opportunities. The Rugby World Cup 2003 will continue the positive business impact of the 2000 Olympics in Sydney. The presence of the Cup in Sydney should create opportunities through access to many international businesses, their decision-makers, and a conglomeration of new industry networks.

For U.S. businesses, the Rugby World Cup 2003 will offer a temporary pool of international businesses prepared to network and make deals. Businesspeople from around the world, together with users, sellers, and resellers of a wide range of products and services, will be present during the international sports gathering. The opportunities are clear for many businesses that wish to expand market share in Australia, enter the market, or build a local business network. ■

NEED MORE DETAIL?

Ask a commercial officer at one of the Department of Commerce's posts located around the globe. Contact information, including phone, fax and e-mail, is available by calling the Trade Information Center at (800) USA-TRAD(E).

Training Doctors across Borders

Atlanta Company Goes Global with BuyUSA.com

by Erica Guries

U.S. Commercial Service

Even after the collapse of the dotcoms, small companies are still turning to the Internet for their business needs. With millions of potential customers literally a click away, it is increasingly important for small businesses to get connected. Atlanta company Animated Dissection of Anatomy for Medicine (A.D.A.M.) did just that with the help of BuyUSA.com.

A.D.A.M. publishes interactive health and medical information for health care organizations, medical professionals, consumers, and students. A.D.A.M.'s products, which include an extensive Web-based medical encyclopedia covering 3,500 diseases and conditions, provide unique "visual learning" experiences. Through the use of graphics, 3-D image models, virtual tours of the human body, and broadcast-quality animation combined with physician-reviewed text, users get a comprehensive look at health care information in an easy-to-understand format, says Education Products Sales Manager Carlos Tenorio.

While the market for A.D.A.M.'s educational products is strong worldwide, the company did not begin to focus on international sales until last year. In April 2001, Trade Specialist Darrel Ching of the Atlanta U.S. Export Assistance Center introduced A.D.A.M. to BuyUSA.com, the U.S. Department of Commerce's on-line marketplace. Shortly thereafter,



Darrel Ching of the Atlanta U.S. Export Assistance Center, with Carlos Tenorio of A.D.A.M.

Photo courtesy of Sue Mabry, A.D.A.M.

A.D.A.M. decided to subscribe to BuyUSA.com. "In less than one year, our international exposure has increased without the added expense of traveling to markets around the world," says Tenorio.

The Atlanta U.S. Export Assistance Center is part of the worldwide network of the U.S. Commercial Service, a Commerce Department agency that helps small and medium-sized U.S. companies make international sales.

BuyUSA.com is a combination of new on-line and traditional off-line services, provided by the Department of Commerce. The site brings U.S. companies together with international companies outside the United States.

Using BuyUSA.com, A.D.A.M. has contacted more than 300 prospects,

which have led to more than 15 demonstrations. A.D.A.M. has completed sales of its interactive health and medical information software to Singapore, Switzerland, and Malaysia, while also securing representation in Spain, as well as signing a distributor in Taiwan.

BuyUSA.com provides companies with a variety of services and benefits. BuyUSA.com subscribers have access to Webcasts, tradeshow information, up-to-date-market research, and a database of over 20,000 agents, distributors, and qualified buyers located in 90 countries around the world.

"We have been very happy with BuyUSA.com," says Tenorio. "It has definitely met our expectations, and we look forward to continued success with BuyUSA.com." ■

The Right Tools for Tapping World Markets

Award-Winning Exports from the Factory Floor

by Curt Cultice

ITA Office of Public Affairs

Years ago Pedro Aranda led his family from Argentina to the United States looking for greater entrepreneurial opportunities and to turn a dream into reality. He achieved his dream—moving from a factory floor job to president of his own company, Aranda Tooling, Inc., in 1978.

Twenty-five years later, things are only getting better for Pedro Aranda's company. "I always wanted to own my own business in the United States, and I have worked hard to make the most of the opportunity," Aranda says. "I learned early on the keys to success are continually improving your product and providing great customer service, and that's what we do best."

Sitting in his office at the firm's headquarters in Huntington Beach, California, Aranda loves the hustle and bustle of his factory, and why not? After all, Aranda Tooling is going places—specializing in high volume metal stamping as well as precision tooling. "We make components for different industries, but the automotive sector is by far our largest market," Aranda says. "For example, we supply everything from brackets and heat shields for Honeywell's turbocharger plant in Mexico to stamped parts for radiator assemblies."

Aranda Tooling also helps provide the comfort and convenience of home life. The firm sells climate controls for thermostats and hot water heaters; components for door locks to Black & Decker; brackets for Price Pfister faucets; and decorative flanges for showers. Aranda Tooling sees tremendous opportunities abroad and has moved to take advantage of a global market in which 95 percent of the world's consumers live outside of the United States.

RECOGNITION FOR EXPORT PERFORMANCE

Last August, Commerce Secretary Don Evans presented Aranda Tooling with the U.S. Commerce Department's Export Achievement Award. The firm has utilized the services of the Commerce Department's U.S. Export Assistance Center in Newport Beach, California. Raul Lozano of the Newport office provided counseling and trade show information for the company's exports to Brazil, China, Japan, South Korea, Mexico, and the United Kingdom.

"Small companies like Aranda are willing to take a risk and smart enough to know that the global economy is the place you want to be to make money," Evans said. Evans noted Aranda Tooling's great success in exporting and the contributions of the firm in creating jobs. "You truly represent the backbone of our nation's economy," he told Pedro Aranda and his 125 employees at the presentation.

Exports account for 50 percent of Aranda Tooling's sales, and the firm is looking to use more of the services of the U.S. Export Assistance Center in Newport Beach. "There is a strong possibility that we will soon be arranging to use the Commerce Department's Gold Key Service in Mexico, which provides for pre-arranged business appointments," says Aranda. "Mexico will likely continue to be our largest market, especially with all the automotive assembly that goes on there."

Where else might Pedro Aranda be looking to expand his firm's sales? "There's plenty of export opportunities out there," he says. "The biggest challenge is finding the customers." ■

Sunny Spain

Bright Outlook for Trade

by the U.S. Commercial Service, Spain

When President George W. Bush planned his premier diplomatic visit to Europe last year, he selected Spain as his first destination to demonstrate its importance as a crucial “economic partner working with the United States.”

With a GDP growth rate higher than any other major industrialized nation in the world over the last two years and a per capita GDP twice that of Mexico, Spain is bursting with opportunity for U.S. companies.

Since Spanish economic growth is projected to continue outpacing that of all other major industrialized countries, it is no surprise that some of the foremost U.S. companies, including General Electric, Pfizer, and Boeing, are expanding their operations in the Iberian Peninsula.

The Spanish economy, which has seen a dramatic decrease in unemployment in the last five years, has been bolstered by major projects aimed to meet the demands of EU integration and other development projects that are currently under way.

Another attractive development for the Spanish market is the adoption of the euro, which brings greater

macroeconomic stability in the region and eliminates the risks and hassles associated with multiple exchange rates.

Since Spain is a member of the European Union, exporters can be assured of enforceable trade rules that are transparent and consistently applied. Perhaps most advantageous of all, the European Union’s standardized operations and distribution agreements give U.S. exporters access to all 15 EU countries, with a combined market of 370 million relatively high-income consumers.

A recent Economist Intelligence Unit report on business in Europe also concluded that Spain is the least expensive country in the European Union with regard to labor, expatriate, and transportation costs. These comparative advantages help in persuading businesses to choose Spain as the entry point for expansion into the European market.

ENVIRONMENTAL PROTECTION AND RENEWABLE ENERGY

The Spanish environmental market, estimated to be worth more than \$5 billion, has experienced significant growth over the last decade, promoting an increase in environmental awareness and updating of environmental legislation. The water sector accounts for 45.6 percent of the market, the waste sector 37.6 percent, street cleaning 15.2 percent, and the atmospheric sector 1.6 percent.

Spanish public investment in the four sectors listed above totals almost \$2.5 billion, and private investment is nearly \$1 billion. In 2003, the Spanish government will spend more than \$2 billion on environmental technologies. This emphasis, combined with the liberalization of Spain’s energy sector, has created an excellent market for U.S. companies that specialize in environmental and renewable-energy products. The best prospects in the environmental market include water (distribution, drainage, purification, and irrigation), waste (solid, urban, industrial, and recycling), soil, and air treatment.

The Spanish government has been actively supporting the deregulation of the energy sector. The Spanish government’s national renewable energy plan establishes the goal that in 2010 at least 12 percent of primary energy consumption in Spain will be derived from renewable energy sources, such as wind, photo voltaic solar, thermal solar, and solid waste.

TELECOMMUNICATIONS

Telecommunications services generated approximately \$23.3 billion in revenues in 2001, a 14 percent increase over the previous year. The key areas of growth are mobile telephony and broadband. Industry restructuring is expected next year, in addition to further legislative measures to increase market competition.



Industry estimates indicate growth of 20 percent in 2002 and 8 percent in 2003 for mobile telephony. Cable is projected to grow 32 percent in 2002, while switched data and leased-line services should grow 14 percent. Mobile telephony has reached 30 million users, with a market penetration of 75 percent. The high number of prepaid clients and the importance of SMS messaging are expected to provide 10 to 15 percent of revenues to service providers in 2002.

The Internet market is still growing, and more than 1 million users are expected to be connected via ADSL by the end of 2002. Estimates of Internet usage for 1999, 2000, and 2001 are 3.6 million, 5.75 million, and 8.75 million users, respectively.

The Spanish market offers interesting opportunities to U.S. firms—both service providers and equipment manufacturers. Demand will be driven by solutions that provide content to broadband services.

EDUCATIONAL SERVICES

Young Spaniards are more outgoing than previous generations and consider themselves part of a multilingual society. Spain's EU membership, the growing presence of multinationals, and increased Internet use are contributing to heightened interest in studying abroad. Approximately 70,000 students (ages 14–19) travel every year to the United States to learn English—the majority during

the summer months, when there is a growing demand for programs that include outdoor recreational activities. In addition, the number of collegiate Spaniards in the United States is increasing, with business, finance, law, and engineering being the most popular academic subjects.

For corporate training, e-learning is still an incipient field. Most local industry sources agree that this emerging market will have strong demand by 2005, when 60 percent of Spanish companies will have the capability to implement e-learning programs.

MEDICAL EQUIPMENT

Representing 35 percent of total imports (\$600 million), the United States is Spain's main medical devices supplier. U.S. medical equipment is highly regarded by Spanish doctors, importers, and distributors. There is zero duty on medical devices, making Spain an even more attractive market for export. U.S. import growth is forecast at 8 percent annually for the next two years.

The best prospects for U.S. medical equipment exporters include anesthetic equipment, ophthalmic instruments, therapeutic respiration apparatus, heart implants, prosthesis and trauma products, flexible endoscopic equipment, and other innovative products.

For more information about exporting to Spain, visit www.buyusa.gov/spain/en.

SPAIN AS A MARKET FOR HISPANIC BUSINESSES

Program to Identify Export Opportunities

The U.S. Commercial Service in Spain, the Global Diversity Initiative of the U.S. Commercial Service in Washington, D.C., and the Minority Business Development Agency have formed a partnership to promote Spain as an export market for Hispanic businesses. On October 14, 2002, during Latino Business Week in Los Angeles, the three groups formally announced their working relationship.

The program under this partnership will consist of a series of four training sessions around the United States to help Hispanic businesspeople and Hispanic-owned firms identify market opportunities in Spain. To learn more about this program, contact Selina Marquez at (202) 482-4799.

Latin American Markets Ripe for Trade

Secretary of Commerce Leads a Trade Mission to Chile and Peru

by the Office of Business Liaison, Office of the Secretary of Commerce

Latin America is a dynamic and diverse market for U.S. exporters. The United States is currently finalizing negotiations with Chile to establish a free trade agreement, and Peru is part of the Andean Trade Preference Act. The recent passage of the Trade Act of 2002 (see page 20) and its extension of the Andean Trade Preference Act ensure that future commercial relations with these two countries will be mutually beneficial.

In light of these encouraging developments, Secretary of Commerce Donald L. Evans will lead a senior-level trade mission to Lima, Peru and Santiago, Chile, on December 2–6, 2002. The delegation will include approximately 15 executives of U.S.-based companies eager to explore commercial opportunities. (See www.commerce.gov/latinamericatrademission for more information.)

PERU

Peru is an economically stable and growing marketplace. With a population of nearly 30 million, entrepreneurial spirit, and a democratic tradition, Peru offers both U.S. exporters and investors an attractive entry to the Andean region. As Peru seeks economic growth within a policy of fiscal prudence, future privatization and development of emerging sectors that take advantage of the Andean Trade Preference Act are creating opportunities in a number of sectors.

Transparency in rule-making and customs has been strengthened in the past 10 years, and Peru is currently negotiating a bilateral investment treaty with the United States. The United States is Peru's largest trading partner, supplying 30 percent of imports and consuming 25 percent of Peru's exports, with two-way trade totaling nearly \$4 billion last year.

Peru is a gateway to the rest of the Andean Community, consisting of Bolivia, Colombia, Ecuador, and Venezuela. These countries have a total marketplace of 112 million people and a combined GDP of \$290 billion. With Andean Community harmonization continuing in customs rates and commercial policies, as well as a continual lowering of internal community tariffs, Peru is well situated to take advantage of these benefits.

CHILE

Chile is one of Latin America's most dynamic and promising markets. Its strength and attractiveness lie not in its size (population of 15 million people), but in the energy and professionalism of its entrepreneurs, the transparency of its regulation, and the predictability of its decision-makers.

Market-led reforms over 25 years and an increasingly diversified economy with strong ties to buyers and suppliers in the Americas, Europe, and Asia have given Chile a wide range of options for further growth. Prudent

economic policy-making has secured long-term stability unknown elsewhere in Latin America.

Chile is a particularly promising market for pollution control and telecommunications equipment. While solid opportunities for U.S. goods abound in Chile, competition is stiff, especially from countries with which Chile has negotiated free trade agreements. The United States is Chile's largest single supplier (almost 23 percent of imports), but European and Asian competitors are strong. U.S. exporters to Chile find few problems in financing customers. Sufficient Chilean, U.S., and third-country banks operate in Chile.

The United States and Chile are scheduled to complete negotiations on a bilateral free trade agreement. Currently Chile has free trade agreements with Canada and Mexico, the United States' NAFTA partners. When the U.S.-Chile bilateral free trade agreement becomes law, U.S. exporters will also enjoy the elimination of import tariffs on most products. Both the Bush and Lagos administrations are optimistic about having a free trade agreement in place by the end of the year.

Chile has one of the simplest and most transparent regulatory systems in the region for commerce. A fixed 7 percent import duty on most products from those countries without a free trade agreement will be reduced

to 6 percent by 2003. Careful review of regulations and full compliance with guidelines will ensure more successful and trouble-free operations in Chile. Chile maintains import and export licensing requirements, but they are more for statistical purposes rather than control. Only agricultural products and a few sensitive items face restrictions.

BEST PROSPECTS FOR U.S. EXPORTS

Energy

Peru is a net energy importer, but it enjoys the benefit of having oil and natural gas reserves. The country's proven oil reserves are 342 million barrels of oil and 8.7 trillion cubic feet of natural gas. Argentina's Pluspetro produces the majority of Peru's oil. The remaining production comes from Perupetro (Peru's state-owned oil company), U.S.-based Petro-Tech, and U.S.-based Barrett Resources Corporation. Peru's overall production has been declining. In the early 1980s, production was around 200,000 barrels per day (bbl/d), and by 2001 it had declined to 96,000 bbl/d. Peru imports oil from Colombia, Ecuador, and Venezuela. The country has five refineries with a combined capacity of 100,000 bbl/d.

Peru has approximately 5.9 million kilowatts of installed electricity generation capacity. Fifty percent is generated by hydroelectric systems and the other half by diesel and fuel oil. In 2001, Peru generated 20.7 billion kilowatt-hours of electricity, up from 19.9 billion kilowatt-hours in 2000. Rainfall patterns have caused fluctuations in hydroelectric power output. Peru is attempting to reduce its dependence on hydropower and to use natural gas as an alternative.

Equipment for generating electrical power will be in demand. Specifically, Peruvian buyers are interested in heat exchangers, interrupters, generator sets, relays, circuit breakers, static converters, hydraulic turbines and

wheels less than 1,000 kilowatts, and hydraulic turbines and wheels more than 10,000 kilowatts. As the Camisea natural gas field comes on-line, similar types of power generation equipment will be needed, specifically for gas-fired power generation systems.

Chile has limited indigenous energy resources and relies primarily on imports to meet its rapidly growing energy demand. Its state-owned oil company, Empress Nacional de Petiole (ELAP), supplies about 85 percent of Chile's oil demand. Chile imports crude oil from Argentina, Ecuador, Gabon, Nigeria, and Venezuela and processes this crude oil at three state-owned refineries. Natural gas is imported via pipeline from Argentina. Chile is now searching for alternative suppliers, due to recent gaps in supply related to Argentina's economic crisis. Natural gas demand is forecasted to climb from 16 percent of Chile's energy consumption in 2001 to 30 percent in 2008, largely in response to the 7 percent annual growth of Chile's energy demand. Hydropower currently generates electricity to meet about 50 percent of Chile's electricity consumption. Chile's dependence on hydropower was severely tested during a 1998–1999 drought that lowered reservoir levels and caused widespread power outages throughout the country.

Since new power plant construction started in 1996 and will continue through 2005, the market for power generation equipment and supplies will remain steady. Chile will continue to be a good market for high technology and infrastructure-related products. These products include equipment for electricity generation and related products such as water tube boilers, generators, switches, insulators, electric connectors, hydraulic turbines and parts, and dielectric liquid transformers.

Medical Devices

Peru and Chile are both heavily reliant on imported medical equipment, and the United States is the leading foreign

supplier of medical equipment in both markets. Chile's medical device market is \$195 million while Peru imports 80 percent of its \$94 million market. The United States exported nearly \$58 million in medical equipment to Chile in 2001, and it holds a 40 percent market share in Peru.

Although Peru is a poor country, its GDP per capita is the highest in the Andean region. According to the Pan American Health Organization, Peru spends approximately \$3 billion on health. Especially if its political situation remains stable, Peru's medical device market should not be overlooked, as prospects for its continued growth are clear.

Chile is a small market with a young population. However, the proportion of those over 65 years of age is increasing. Chile spent \$4.6 billion on health in 1997, of which expenditures on medical devices on a per capita basis was \$13.

The United States exported \$19 million in electro-medical equipment, and \$13 million in surgical and medical instruments, to Chile in 2001. Chile is implementing a poverty reduction program, which includes a health improvement component. This includes construction and upgrading of numerous hospitals.

MORE ON PERU AND CHILE

The continuing liberalization of commerce in Peru and Chile bodes well for U.S. companies. U.S. exporters interested in learning more about Peru and Chile should visit www.buyusa.gov/peru/en and www.buyusa.gov/chile/en, respectively. ■

Finland

Northern Lights on American Exports

by William Corley
Export America

Finland's tiny population belies its regional strength and worldwide influence. Within the last decade, Finland has gained prominence not only as a Baltic-Scandinavian crossroads but also as a powerful global trader. Known for the high-tech quality and competitiveness of its products, "tiny" Finland is actually the seventh-largest country in Europe by area. While U.S. companies may once have considered Finland a very remote and awkwardly neutral country, Finland is now an important commercial partner of the United States, and its sophisticated market offers many export opportunities.

HIGH-GROWTH GATEWAY

Finland rebuilt its economy after a damaging recession in the early 1990s. Strong manufacturing was integral to economic recovery; Finnish manufacturing registered faster output growth than that of the world's most industrialized countries, 1994–2000. Much of this manufacturing ensued from the export performance of the telecommunications equipment sector. Finland also bolstered its economy by joining the European Union in January 1995, and adopting the euro as its sole currency in January 2002.

Finland is part of a commercial locus formed by Scandinavia, northern Russia, and the Baltic states, which encompasses some 80 million consumers. This proximity has made Finland a major transshipment area, which utilizes Finland's well-developed road and rail infrastructure. Finland has the same rail gauge as Russia, and efficient roadways link Finland to the European

FACTS AND FIGURES

Total area: 337,100 square km (a little smaller than Montana)

Population: 5.2 million

GDP: \$140 billion (2002 forecast)

GDP by sector: services 68%, industry 29%, agriculture 3%

Main industries: forestry, metals, shipbuilding, electronics, telecommunications

Currency: euro

Exports: machinery and equipment, chemicals, metal products, timber, paper, pulp, electronic and electrical products

Imports: foodstuffs, petroleum and petroleum products, transportation equipment, iron and steel, machinery, textile yarn and fabrics, grains

Free trade agreements/membership: European Union (EU), European Free Trade Association (EFTA), European Economic Area (EEA)

Official languages: Finnish (93% of the population) and Swedish. Many Finns speak English.

Sources: U.S. Department of Commerce, CIA, EIU.

Union. As Finland expands its highway system along the Russian border, more than two-fifths of the European Union's road shipments to Russia travel through Finland. A network of modern, automated ports, more than a dozen of which handle transit cargo, complements the road and rail system.

Given these strong eastern ties, Finns are familiar with business in Russia, as well as in Estonia, Latvia, and Lithuania. Particularly in reference to small countries that border large countries or regions, "gateway" is a hackneyed term in international trade. However, this term applies to Finland. Many foreign companies use Finland as a base for expanding their trade and investment in the former Soviet Union.

REALIGNMENT AND INTEGRATION

Finland spent most of the latter half of the 20th century in precarious neutrality. Finland had to strike a balance between an independent

foreign policy and one that did not provoke its gigantic and powerful eastern neighbor. During the Cold War, Finland maintained a Western-style democracy and economy, but neutrality dictated that it not fully participate in the integrative political and economic structures of Europe. For instance, the Soviet Union frowned on Finland's EFTA associate membership in the 1960s; Finland did not become a full EFTA member until the Gorbachev thaw in the mid-1980s.

Since the collapse of the USSR in 1991, Finland has energetically pursued European integration and normalization of relations with Russia. Finland signed a new treaty with Russia in 1992, annulling the restrictive 1948 treaty of friendship, cooperation, and mutual assistance with the Soviet Union. In 1992 Finland also applied for European Community (EU predecessor) membership. Two years later, Finland made a significant purchase of U.S. military aircraft.

Together, these moves marked the end of Finland's formal policy of neutrality. Finland is currently a member of the Euro-Atlantic Partnership Council, a group of countries affiliated with the North Atlantic Treaty Organization. Although Finland has not decided whether to become a full NATO member, it already contributes troops to NATO peacekeeping missions.

As Finland reaches out to the world, the United States has become Finland's fourth-largest trading partner (after Germany, Sweden, and Russia). Bilateral trade between Finland and the United States exceeds \$5 billion annually. The United States consumes 9 percent of Finland's exports, and it provides 7 percent of Finland's imports. Notwithstanding certain EU regulations, Finland has no significant trade barriers against U.S. products and services.

WEALTHY AND COMPETITIVE—HONESTLY

Finland has one of the highest per capita incomes in the world, and its economy is a dynamic free market based on natural resources, modern industry, and indigenous technology. The World Economic Forum and Transparency International rank Finland as the most competitive and least corrupt country in the world, respectively.

Besides being the world leader in telecommunications, Finland has exceptional metals, wood products,

BEST PROSPECTS FOR NON-AGRICULTURAL EXPORTS TO FINLAND

- Computer software
- Franchising
- Telecommunications equipment and services
- Medical equipment
- Computers and peripherals
- Environmental technologies
- Travel and tourism
- Biotechnology

Source: U.S. Commercial Service, Helsinki.

and shipbuilding industries. Finland is among the world's top 10 producers of ships. Finland makes one out of every four cruise liners in the world.

Finland is a unique environment for highly sophisticated manufacturing and services. Its economic success may begin with top-notch education. The government requires that all citizens go to school through age 16, which makes Finland almost 100 percent literate. In 2000, Finland was the only country among 32 industrialized nations to place in the top five in each category (of reading, mathematical, and scientific literacy) of an OECD study of 15-year-old students.

In just a decade, Finland has joined the ranks of the world's leading producers and users of information and communications technologies. Penetration rates of technology in Finland are extraordinary. Sixty percent of Finnish homes have computers, 75 percent of Finns own mobile phones, and Internet connections per capita in Finland are second only to the United States.

The deeply integrated use of information and communications technology in Finland can be seen in banks, schools, libraries, hospitals, and homes. E-commerce is more advanced in this country than anywhere else in the world. For instance, users of traditional banking services are in the minority, and 80 percent of Finnish companies have home pages on the Internet.

The United States is Finland's leading foreign supplier of computers and peripherals. Demand for new-and-improved technologies has made Finland an attractive market for U.S. exporters. Additionally, the demand for computers in Russia and the Baltic countries has boosted Finland's gateway-marketing status.

TECHNOLOGICALLY ADVANCED

Telecommunications is a driving force in the Finnish economy. Four years

ago, Finland became the first country in which mobile phones exceeded the number of wired phones. Nokia, headquartered in Finland and employing thousands of people worldwide, symbolizes Finland's world-class telecommunications. Nokia is the world's leading manufacturer of mobile phones.

Telecommunications has challenged the traditional forestry sector in its contribution to economic welfare. Forest products and telecommunications equipment each account for about a quarter of Finland's exports by value. Finland's electronics industry (including telecommunications) constitutes 7 percent of GDP. At its peak two years ago, the electronics industry was responsible for more than 30 percent of Finland's economic growth.

Finland's telecommunications market is one of high standards and stiff competition among service providers. Finland was one of the first countries in the world to open its telecommunications market, and it consequently has some of the lowest respective tariffs. This liberal and cutting-edge environment has created an excellent test market for new products and services. Hewlett-Packard, Lotus, and Siemens have established facilities for wireless Internet development in Finland.

Finland's widespread use of technology, in addition to its willingness to trade with the world, has created a market full of opportunities. U.S. companies active internationally should definitely be aware of the benefits of business in Finland, especially if they are interested in the Russian or the Baltic market. ■

Aubrey Prince, a summer intern at the ITA Office of Public Affairs, contributed to this article. Main sources: *Country Commercial Guide: Finland, FY 2003* (U.S. Commercial Service and U.S. Department of State, 2002), *The World Factbook* (CIA, 2001), and *The Story of Finland* (Finnfacts, 2001).



EXPORTING TO FINLAND

Basic Documentary Requirements

- Bill of lading (one original and one copy required, no special format; "to order" bills of lading allowed).
- Packing list (required).
- Commercial invoice (one copy of the original invoice is required).

Other Documentation

- Certificate of origin: Although not required for U.S. products, it may be requested upon import. If a certificate of origin is required, appropriate consular legalization or chamber of commerce certification is necessary. The certificate of origin must contain a complete description of the goods, country of origin, marks and numbers on packages, and metric net and gross weights.
- Sanitary certificate: Necessary for goods that may carry or otherwise transmit plant, animal, and contagious diseases. For more information, visit the U.S. Department of Agriculture at www.usda.gov.

Import Taxes and Licenses

Certain goods require import licenses. Finland follows the import licensing procedures of the European Union. Agricultural products may be subject to import duties or fees.

Tariff and Non-Tariff Barriers

Finland has a value-added tax (VAT) system similar to that of other EU countries. The basic VAT rate is 22 percent. Food products have a 17 percent VAT. Medicines, books, passenger transportation services, hotels and accommodations, and sports and entertainment are subject to 8 percent VAT. Health care, education, insurance, newspaper and periodical subscriptions, and other services are free of VAT.

Forestry and agricultural products are subject to taxation other than VAT. Some agricultural products are subject to EU quotas, import licenses, taxes, and other provisions.

Tariff Rates

Duties and other import taxes are based on the customs value of the goods at the point of importation. The customs value is based on the transaction value of the imported goods; in practice, the customs value is normally the CIF value.

Standards and Labeling

Finland uses the metric system of weights and measures. Products to be sold in Finland should therefore use the metric system. Additionally, U.S. products exported to Finland should meet international or European standards.

Product labeling and marking requirements in Finland follow EU product safety practices. Retail packaging and product marking should include the product name, description of contents, manufacturer's name (or the name of the company that had the product manufactured), and the weight or volume of the contents (in the metric system).

Sales and Distribution

Distribution in Finland is similar to that in the United States. Products are sold through an agent, distributor, wholesaler, or directly to retail enterprises. Wholesalers and trading houses often import consumer goods, but such merchandise may also be sold directly to retail and department stores.

Sales techniques and terms in Finland are also similar to those in the United States and other industrial countries. Finland is a small market that covers a large area. It is possible for a U.S. supplier to appoint just one local distributor, as long as the



distributor can ensure nationwide coverage.

Going to the Right Source

Export and import requirements, including tariffs and taxes, are subject to change. The information above is only a general guide, and it should not be used without checking with customs and export regulatory authorities in both Finland and the United States.

For more information about exporting to Finland, consult the latest *Country Commercial Guide* for Finland or contact the U.S. Commercial Service in Helsinki (both at www.buyusa.gov/finland/en). Finland's National Board of Customs offers on-line guidance in English to travelers and traders at www.tulli.fi. ■

NATIONAL PUBLIC HOLIDAYS, 2003

January 1 New Year's Day	December 6 Independence Day
January 6 Epiphany	December 24 Christmas Eve
April 18 Good Friday	December 25 Christmas Day
April 20 Easter	December 26 Boxing Day
April 21 Easter Monday	Offices and schools are closed on Midsummer Eve and Christmas Eve, but shops are open parts of both days.
May 1 May Day	
May 29 Ascension	
June 8 Whitsunday	
June 20 Midsummer Eve	
June 21 Midsummer	
November 1 All Saints' Day	

Source: University of Helsinki Almanac Office.

WEB RESOURCES

U.S. Commercial Service in Finland

This site offers extensive information about best prospects, trade events, networking services, and much more. The site also offers a downloadable version of the latest *Country Commercial Guide*, a comprehensive look at economic, political, investment, trade, and regulatory issues in Finland. The Commercial Service operates out of the U.S. embassy in Helsinki, and it is the primary facilitator, consultant, and promoter for U.S. businesses that wish to enter the Finnish market.

www.buyusa.gov/finland/en

U.S. Embassy in Helsinki

This well-organized site provides a wide range of in-depth information, including news, public affairs, consular services, electronic library resources, commercial services, and defense information. The site also contains numerous useful links to other organizations.

www.usembassy.fi

Virtual Finland

This English-language site, maintained by Finland's Ministry for Foreign Affairs, is an excellent introduction to all things Finnish. The site has numerous pages and links for news, history, travel, international relations, and more. The Finland Information (FINFO) pages include articles by independent specialists on a variety of topics, from industrial development and business customs to environmental issues and the history of the sauna.

<http://virtual.finland.fi>

Helsingin Sanomat, International Edition

This site contains abstracts in English of several daily

stories, as well as a weekly digest of edited articles from the newspaper. The editorial staff describes the on-line content as either "international with a Finnish connection" or "Finnish with an international dimension." The site contains several useful links and pages, especially fun facts and FAQs about Helsinki and travel to Finland.

www.helsinki-hs.net

Finnfacts

Finnfacts is an independent media service that introduces foreign journalists to Finnish industry. The site provides information about the economy and society of Finland. Finnfacts compiles economic data and political information from several Finnish government agencies. The site also contains industry overviews and company profiles. The on-line content is in English and several other languages.

www.finnfacts.com

Embassy of Finland in Washington, D.C.

This site contains relevant consular information and several commercial and media links. Incidentally, this embassy was rebuilt in 1994 and is well known locally for its distinctive use of wood, glass, and bronze—all proudly noted in a photo gallery on this Web site.

www.finland.org

Finnish-American Chamber of Commerce

Since 1948, the New York City-based FACC has promoted investment, economic development, and trade between Finland and the United States. This site features information about the chamber and its chapters, as well as networking events and business development opportunities.

www.finlandtrade.com ■



Ask the TIC

Making the NAFTA Work for You

by Patterson Brown
Trade Information Center

The North American Free Trade Agreement (NAFTA) has created the world's largest free trade area, and it provides important benefits for U.S. goods that are exported to our NAFTA partners, Canada and Mexico. If your product has sufficient North American content to qualify for NAFTA preference, your exports could be subject to a lower duty rate than non-NAFTA goods. Industrial products that qualify under NAFTA will be duty-free between the United States and Mexico by January 1, 2003. Tariffs on other products will be eliminated by 2008. Products traded between Canada and the United States have been duty-free since 1998, with a few exceptions.



WHY SHOULD I QUALIFY MY PRODUCTS FOR NAFTA?

Your firm can take advantage of lower tariff rates on products bound for Canada and Mexico. A lower rate makes your product available at a lower price than your competitors' non-NAFTA goods, without sacrificing your profit margin. Examples of tariff rates on imports into Canada and Mexico of NAFTA and non-NAFTA qualifying products:

Description	U.S. Exports to:	Non-NAFTA Duty Rate	NAFTA Duty Rate
HS 3603.00 Safety fuses	Canada	7.5%	None
	Mexico	25%	None
HS 4810.13 Kaolin-coated paper and paperboard	Canada	2%	None
	Mexico	13%	None
HS 8708.99 Parts and accessories of motor vehicles	Canada	6%	None
	Mexico	18%	None



HOW DO I DETERMINE IF MY PRODUCT IS NAFTA-ORIGINATING?

Goods with sufficient North American content to qualify for NAFTA preferential duty rates are said to "originate" in NAFTA countries. Even if a product is produced or purchased in a NAFTA country, it might not be eligible for preferential tariff treatment because of non-NAFTA inputs in its production. Exporters must therefore analyze the composition of their products. Substantial transformation of non-NAFTA inputs usually must take place to qualify an end product under NAFTA. The NAFTA Rules of Origin describe the amount and type of transformation that must occur.

If your product contains absolutely no non-NAFTA raw materials, inputs, parts, ingredients, or components, it would be considered NAFTA-originating. You may proceed directly to filling out the NAFTA Certificate of Origin, which is the customs document that claims the tariff preference.

For goods containing non-NAFTA inputs or components, exporters must analyze the product-specific Rules of Origin, in Annex 401, Chapter 4 of the NAFTA. Note that your product also meets the NAFTA test if it is made entirely with components or inputs that have already been determined to qualify as NAFTA-originating in accordance with the Rules of Origin. You must always have adequate records relating to your product's inputs, materials, and production to claim NAFTA tariff preference.

Harmonized System (HS) or Schedule B Tariff Numbers

The first step to understanding the NAFTA Annex 401 Rules of Origin is understanding Harmonized System Tariff (HS) numbers. HS numbers are classification numbers assigned to individual products. The NAFTA Annex 401 is organized according to specific HS line items. Exporters must know the HS numbers of the products they wish to export, as well as the HS numbers for the non-NAFTA components or inputs used to make the final goods. HS numbers break down in the following manner:

- Chapter: two digits;
- Heading: four digits;
- Subheading: six digits;
- Tariff item: eight digits;
- Statistical break: 10 digits.

For example, for HS 3305.30.0000 (hair spray) the chapter is 33 (perfumery, cosmetic or toilet preparations), the heading 3305 (preparations for use on hair), the sub-heading 3305.30 (hair lacquers), and so on. Companies can find a searchable database of HS or Schedule B numbers on the U.S. Census Bureau's Web site: www.census.gov/foreign-trade/schedules/b/index.html.

Once a harmonized number is obtained for a final product, an analysis of the Canadian/Mexican most-favored nation (MFN) tariff for the product must be completed. Tariff information is available from a number of sources, including your customs broker, freight forwarder, and the customs authorities of Canada and Mexico. You can also call the Trade Information Center for tariff rates.

If there is no difference between the non-NAFTA (MFN) and NAFTA rates, you do not get a tariff preference—so you do not need to fill out a NAFTA Certificate of Origin. However, there may be other reasons to document North American content (for example, if the

importing NAFTA country imposes anti-dumping duties on similar products from elsewhere, or if your buyers use your products as components in goods they export to NAFTA countries). If the non-NAFTA (MFN) rate is higher, use the HS number to decipher product origination from the NAFTA Annex 401.



HOW DO I READ THE RULES OF ORIGIN?

The following is a simplified analysis of a NAFTA Rule of Origin for the tariff line item for toy electric train sets (9503.10). In the Annex 401, the rule at the subheading level, 9503.10, states: “a change to headings 9503 through 9505 from any other chapter.” This is a rule covering a situation called a “tariff shift.” This rule means that, if the non-NAFTA inputs used to make the electric train set (9503.10) do not fall within HS chapter 95 (toys, etc.), then the end product qualifies for NAFTA preference (i.e., a tariff shift has occurred). For example, a firm may import plastic tape (3919.10) directly from China to manufacture the toy train sets (9503.10) that otherwise contain all NAFTA-originating components. Even though the Chinese plastic tape is used in the manufacturing process, the end product would still qualify, because the non-originating input (plastic tape) does not have the same first two HS numbers (95) as the end product.

Conversely, if we assume that the makers of the electric train sets have imported toy cows from India (classified under HS chapter 95) to be included in the sets, this would disqualify the train sets from obtaining NAFTA preference. In this case, sourcing the toy cows from a NAFTA manufacturer or eliminating it altogether could qualify the train sets.

Once firms have done an analysis of the Rules of Origin, decisions about sources of inputs in a production process can be made to fit the ultimate goal of classifying a product as NAFTA-originating.



WHAT DOES “RVC” MEAN?

In limited cases, the NAFTA Rules of Origin may specify the use of the regional value content (RVC) method of determining if a good can qualify for NAFTA tariff preference. For example, a rule might specify that at least 50 percent of the value of a product must be North American in order to qualify for NAFTA treatment. It is important to note that the regional value content test is not a generally available option for exporters; it may be used only when specified in Annex 401 rules.

Regional value content may be calculated using two methods: transaction value (TV) or net cost (NC). These methods involve

subtracting the value of non-originating materials in a good to arrive at its percentage of North American content. Their difference lies in the cost basis used to make the calculation.

Transaction value generally means the price actually paid or payable for a good, while the net cost means total cost minus sales promotion, marketing and after-sales service costs, royalties, shipping and packing costs, and non-allowable interest costs that are included in the total cost.

Because the transaction value is a broader basis for calculating content, the regional value content required is higher than for net cost. In most cases where the RVC method can be used, the Rules of Origin will specify the required level of regional value content as 60 percent for transaction value and 50 percent for net cost.

The exact formulas for calculating both methods are found on the Trade Information Center Web site, under NAFTA Rules of Origin: Regional Value Content.

Should precise accounting questions arise regarding RVC, exporters are advised to call a NAFTA specialist at (800) USA-TRAD(E). For complex issues or when interpretation is required, exporters should seek legal assistance or an advanced ruling from the customs administration in the country to which they are exporting.



WHERE CAN I FIND MORE INFORMATION?

Visit the TIC’s Web site at www.export.gov/tic and click on “Answers to Your Export Questions.” Two articles written by the TIC for *Export America* on NAFTA, “NAFTA Certificate of Origin: Information and Requirements” and “NAFTA Update: Frequently Asked Questions about the NAFTA,” are located on that page. A downloadable NAFTA Certificate of Origin and links to the Rules of Origin are also provided on the TIC home page under the NAFTA link on the bottom toolbar. Additionally, NAFTA specialists at the Trade Information Center can guide companies through the NAFTA origin certification process. ■

The Trade Information Center (TIC) is operated by the International Trade Administration of the U.S. Department of Commerce for the 19 federal agencies comprising the Trade Promotion Coordinating Committee. These agencies are responsible for managing the U.S. government’s export promotion programs and activities. You, too, can “Ask the TIC” by calling (800) USA-TRAD(E) toll free, Monday through Friday, 8:30–5:30 EST. Or visit the TIC’s Web site at www.export.gov/tic.

The Trade Act of 2002

What Does It All Mean?

by Erin Mewhirter and Michael Fullerton

ITA Office of Legislative and Intergovernmental Affairs

On August 6, 2002, President Bush signed into law the Trade Act of 2002, which provides the president with trade promotion authority (TPA). This authority will allow the president to negotiate new trade agreements with our trading partners, thereby opening markets to U.S. products and services.

Other provisions of the Trade Act renew and enhance the benefits available to Bolivia, Ecuador, Colombia,

the United States will have the ability (and the credibility) to advance its agenda in the new global trade negotiations, including the far-reaching agricultural reform proposal announced in Geneva and aggressive initiatives in services and industrial goods.

- **Bring economic growth to our trading partners.** The renewal of vital trade preferences for Bolivia, Ecuador, Peru, and Colombia under the ATPA will provide thousands of workers in those countries with new employment opportunities.

other nations, such as Australia and the countries of southern Africa. The administration has already announced its commitment to put the completion of negotiations on the Free Trade Area of the Americas (FTAA) on an aggressive timetable.

As President Bush has made clear, the enactment of the Trade Act of 2002 was a win for the American people, for the U.S. economy, and for the world economy at large. "Starting now," said President Bush at the signing ceremony, "America is back at the bargaining table in full force."

A YEAR AFTER BEING PROPOSED, THE TRADE ACT OF 2002 BRINGS RENEWAL OF "TRADE PROMOTION AUTHORITY" AND THE EXTENSION OF SEVERAL OTHER KEY TRADE PROGRAMS.

and Peru under the Andean Trade Preference Act (ATPA). The act also expands the benefits, and clarifies the provisions of, the Caribbean Basin Economic Recovery Act (CBERA) and the African Growth and Opportunity Act (AGOA). In addition, the Generalized System of Preferences (GSP) program was renewed and extended to December 31, 2006.

Under the provisions of the Trade Act, the United States will be able to:

- **Complete free trade agreements with Chile and Singapore in short order.** In addition to bilateral agreements with these two countries,

The amendments to the highly successful African Growth and Opportunity Act also take effect right away, helping to lift families out of poverty in Africa. The renewal of the GSP, which had expired in September 2001, will effectively assist thousands of workers in Caribbean nations (and in more than 100 other developing economies) to gain a foothold in the global economy.

- **Initiate new negotiations for free trade agreements with Central America and Morocco.** The United States will also be able to consider free trade agreements with

THE ROLE OF CONGRESS

Under the Trade Act the president is required to notify Congress of the specific negotiating objectives for any ongoing negotiations (for example, those with Chile, Singapore, the FTAA, and the WTO). The president must also notify Congress of the negotiating objectives in any new negotiations 90 days before initiating such negotiations. Under the provisions of the Trade Act, new trade agreements must adhere to a set of "principal negotiating objectives" (see sidebar).

Congressional committees must be notified of negotiating objectives with regard to agriculture, labor, and

the environment. On agriculture, the International Trade Commission must weigh in on the economic effects of tariff reductions on U.S. industry. Congressional committees on trade and agriculture will also be notified.

Once a trade agreement has been negotiated and the implementing legislation introduced in Congress, action must occur within 90 days, and no amendments will be permitted.

THE ROLE OF U.S. INDUSTRY

Trade agreements are already negotiated with input from private industry through trade advisory committees. (See the December 2001 issue of *Export America* for an in-depth look at these advisory committees.) In addition, requests for comment are frequently published in the *Federal Register*.

NEW PROVISIONS FOR RENEWED TRADE PROGRAMS

The new Trade Act includes some provisions that affect existing trade programs. These include:

■ **The Andean Trade Promotion and Drug Eradication Act (ATPDEA)**, which renews and enhances benefits available to Bolivia, Ecuador, Colombia, and Peru under a tariff preference program. The program assists in the promotion of trade, stability, and the rule of law in these countries. The president must designate a country as an ATPDEA beneficiary country based on certain criteria that are defined in the act. Under the ATPDEA, duty-free treatment is provided for some products that were excluded under prior law and remain excluded from duty-free treatment under the Generalized System of Preferences program. Duty-free treatment for certain other products is available only if the president determines that the product is not import-sensitive in the context of imports from ATPDEA beneficiary countries. A very limited number of

products remain excluded from duty-free treatment.

■ **The Caribbean Basin Trade Policy Act (CBTPA)**, which modifies certain provisions of the existing Caribbean Basin Economic Recovery Act (CBERA) program. These changes will, with one exception, become effective immediately upon enactment. Four changes to the program serve to harmonize apparel eligibility criteria between the regional preference programs for Africa, the Andean countries, and the Caribbean.

THE FUTURE OF TRADE PROMOTION AUTHORITY

The Trade Act has a very specific timetable for continuation of trade promotion authority. It allows the president to enter agreements under its terms until June 1, 2005. For agreements negotiated after that date, the act requires the president to submit a request to Congress for extension of TPA. This request must be made no later than March 1, 2005. Accompanying reports that detail the economic effects of the agreements negotiated under trade promotion authority must be submitted to Congress by the International Trade Commission and the Advisory Committee for Trade Negotiations and Policy no later than May 1, 2005. Congress will then have the opportunity, until June 30, 2005, to enact a resolution that denies TPA. If Congress does not act, the procedures will continue in effect until July 1, 2007. ■

PRINCIPAL NEGOTIATING OBJECTIVES UNDER TPA

Section 2102 of the Trade Act of 2002 details 17 principal negotiating objectives for agreements concluded under trade promotion authority. These include:

Agriculture: Reduce or eliminate tariffs (or other charges), giving priority to products that are subject to significantly higher tariffs or subsidies; provide reasonable adjustment periods for import-sensitive U.S. agricultural products; reduce or eliminate subsidies that decrease U.S. exports or distort agricultural trade to the detriment of the United States; address unjustified requirements affecting new technologies, such as biotechnology and unjustified sanitary and phytosanitary regulation; complete WTO negotiations by January 1, 2005; seek the broadest possible market access in all negotiations, recognizing the effect of simultaneous negotiations on sensitive agricultural products.

Industrial Goods: Seek enhanced market access through elimination of tariffs based on comprehensive product coverage, in particular for those sectors subject to U.S. zero-for-zero or harmonization initiatives in the Uruguay Round.

Services: Adopt trade disciplines to address discriminatory and other barriers to services trade, including barriers that deny national treatment and market access; pursue specialized provisions for financial services, telecommunications, and other sectors.

Labor and the Environment: Strengthen enforcement of core labor standards and environmental laws; reduce or eliminate government practices or policies that unduly threaten sustainable development; seek market access for U.S. environmental technologies, goods, and services.

Small Businesses: Ensure trade agreement provisions afford small businesses equal access to markets, equitable benefits, expanded market access, and reciprocal elimination of barriers.

Additional trade negotiating objectives concern intellectual property rights, trade remedies, investment, child labor, and electronic commerce. The full text of the Trade Act of 2002, including details on each of the 17 principal negotiating objectives, can be found at www.tpa.gov. ■

Exporting Environ

When Business and the Planet Both Profit



by William Corley
Export America

In this modern technological era, few people would deny that we live in a complex, multilayered world. From cultures to economies, there is an interconnection within our global society that complicates our activities but also leads us to seek out basic similarities. Even the complexity and multiplicity of our natural environment seem to require a simplified, logical explanation. Atomic theory and mathematical calculation are tools that, even in their most advanced applications, simplify and explain the world around us.

The age-old drive to reduce our complex surroundings to a comprehensible state follows many traditions, particularly those of classical Greece. Empedocles, a Greek philosopher of the fifth century B.C., identified four immutable, eternal substances or elements that formed the physical universe and gave the appearance of

change through infinite combinations: earth, air, fire, and water. This pre-Socratic view of matter influenced scientific thought for more than 2,000 years, perhaps in part because of its comforting rationalization of our complex world.

Although modern science has developed other environmental theories and technologies, earth, air, fire, and water still symbolize some of the most significant aspects of life on our planet. Humankind's expanding industry and growing population threaten the delicate ecological balance of the world. As globalization of economic and social development accelerates, major environmental challenges have arisen—from seemingly rapid ecological degradation in some regions to elusive sustainable development in others. Technologies that address issues such as soil conservation (earth), wind power (air), energy (fire), and desalination (water) are among the many fascinating and

apparently surmountable challenges of the new millennium.

A GLOBAL PERSPECTIVE

Previous civilizations noticed the interconnectedness of forms of matter and guessed at, or specified, higher meanings. However, the ancient world was a collection of small, disparate societies. We now live in a large, global community. The environment encompasses not only worldwide businesses but also global problems, including widespread disease and poverty, vexing urban air pollution, and increasing demands on scarce natural resources. It makes sense, then, that exports of environmental technologies have tremendous commercial promise as well as immense potential for ameliorating some of our greatest human development troubles. For instance, an improvement in one developing country's water management and wastewater treatment could save thousands of lives through eradication of simple but deadly water-borne

mental Technology



illnesses. Likewise, if every person in the developing world had clean water for drinking and sanitation, approximately 2 million lives would be saved annually—and half a million due to grievous diseases prevented.

Water, however, is not the only substance that environmental products and services can improve. Clean coal technologies may ultimately clear our skies, reduce the incidence of lung disease, and cut emissions that evidently raise atmospheric temperature. Meanwhile, our wetlands are increasingly preserved or restored and actually used to treat wastewater in inexpensive and naturally effective ways. Such wetlands use has numerous side benefits—for example, preservation of diverse habitats and prevention of flooding.

ECOLOGY AND ECONOMICS

Economic development need not be bad for the environment; commerce need not lead poor countries to increasing environmental problems. It

is a mistake is to assume simply that economic growth leads to urbanization, industrialization, and higher energy consumption—without regard for the environment. Likewise, it is a myth that developing countries will automatically use the least expensive, most ecologically damaging sources of energy.

Poor countries have vast natural resources that, if coupled with appropriate technology, might concurrently address economic development and environmental concerns. For instance, poor countries have no shortage of wind, and wind power creates no harmful emissions. Advances in wind power technology in recent years have made it more competitive with traditional energy sources that burn fossil fuels. If all the external costs—such as pollution cleanup, agricultural yields, and health care—of carbon emissions from coal and gas-fired energy plants are calculated, wind power actually is significantly cheaper than traditional

power. Wind power, along with fuel-cell technology, does not require large-scale plants, although both China and India have benefited from vast wind farms.

The global community, linked not only by common air and water but also expanding trade and cyberspace, must increasingly find ways to harness such environmental technologies. The export of environmental technologies represents an important step in resolving the greatest developmental challenges of human history. Progress can be based on careful application of technologies and use of resources—a balance that the ancient Greeks would have appreciated. ■

Global Environmental Technologies

Trends, Markets, and Prospects

by the Office of Environmental Technologies Industries, Trade Development

The United States is the world's largest producer and consumer of environmental technologies. These technologies include goods and services that promote sustainable development and develop processes that are environmentally beneficial or benign. The environmental technologies sector consists of diverse fields, such as pollution control, waste management, site remediation, and monitoring and recycling.

U.S. environmental trade fell off in 2001 as a result of worldwide recession, but the global environmental technologies market still is quite large. It has an estimated total value of \$560 billion and is projected to grow to \$599 billion by 2005. In the United States, environmental technologies business encompasses some 115,000 enterprises and approximately 1.4 million jobs.

Small and medium-sized enterprises account for the majority of the companies in the U.S. environmental technologies industry, and they generate approximately 28 percent of the U.S. environmental industry's total revenue. Large companies account for almost 40 percent of revenue. Municipalities and similar public sector entities account for 32 percent of revenue and dominate water utilities, wastewater treatment, and solid waste management.

The environmental technologies sector promises export opportunities in water treatment, environmental instrumentation, and innovative products in

areas such as renewable energy and energy efficiency. For the most part, the environmental sector has evolved in response to growing concern about the risks and costs of pollution and the enactment of pollution control legislation worldwide.

LEADING SECTORS

Water and wastewater treatment presents the greatest opportunities in the international market. The global water market has been growing rapidly over the last decade and accounts for almost 40 percent of the world's total environmental market. U.S. companies are major exporters of water and wastewater equipment and chemicals, and they produce specialty equipment that is not available from other suppliers. U.S. companies are highly competitive in engineering, design, and consulting services for the water and wastewater

treatment sector. They are also highly competitive in environmental monitoring, instrumentation, and information systems equipment.

Globally, the environmental instrumentation (and closely related information systems) market has an estimated value of \$7.1 billion. U.S. environmental instrumentation revenues are estimated at \$3.6 billion, of which \$1.5 billion is from exports. This gives U.S. firms an astounding 33 percent share of the international market. U.S. companies are in this good position relative to their foreign competitors (mostly from Japan and Germany) because analytical requirements have been advanced in the United States much more so than other developed nations, particularly pertaining to toxics. Developing nations simply do not have the environmental infrastructure

PURAFIL, INC.

Exporting Air Quality

Based in Doraville, Georgia, Purafil manufactures air quality systems for the removal of corrosive, odorous, and toxic gases. Purafil products have found numerous applications, from petroleum refining and semiconductor manufacturing to pulp production and paper milling. Even museums and archives such as the Smithsonian and Sistine Chapel use Purafil filtration products to preserve their air quality and protect their treasures.

Purafil has worked with the U.S. Commerce Department for more than a decade—locally with the U.S. Export Assistance Center in Atlanta, and internationally through a variety of Commerce Department trade missions and networking events. Purafil now exports its products to more than 60 countries. To learn more about Purafil's award-winning export activities, see the September 2002 issue of *Export America*.

that demands cutting-edge instrumentation. More than 90 percent of U.S. environmental instrumentation exports head to Canada, Japan, and the European Union.

U.S. companies are quite successful in exporting environmental equipment (particularly water and wastewater apparatus and instrumentation). U.S. environmental equipment segments make up 26 percent of the environmental technologies industry and account for 59 percent of U.S. environmental exports.

Solid export opportunities also exist in fields such as automation for treatment systems and monitoring, advanced design, biological systems, and materials reuse and efficiency. Likewise, technology for instruments and information systems that utilize the Internet is another area in which U.S. companies are in a good position to gain market share over the next decade.

Significant tariff and non-tariff barriers restrict environmental trade, particularly in key emerging markets in Asia and Latin America. Relatively high tariffs on environmental products (averaging 15 to 20 percent) are present in nearly every major emerging market. In some markets such as China, the Philippines, Malaysia, and Brazil, tariffs on environmental products are as high as 40 percent. Numerous non-tariff barriers also affect worldwide trade in environmental technologies, but they are particularly onerous concerning services trade. Currently, there is an unprecedented opportunity to open key environmental markets and remove impediments to trade of environmental goods and services worldwide. On a global level, there is a growing effort to liberalize trade in environmental goods and services via multilateral and bilateral agreements.

The international market for environmental technologies is fueled by several important policy and market drivers of demand: greater global focus on

sustainable development; liberalization of environmental technologies trade via bilateral and multilateral efforts; growing industrialization and environmental awareness in key emerging markets; and broader application of environmental "best practices" by multinationals. Meanwhile, our key competitors have aggressively penetrated the large U.S. environmental market through partnerships, acquisitions, and direct sales.

A concerted U.S. government strategy, begun in 1994 through the Environmental Technologies Export Initiative, has played a major role in helping the U.S. environmental industry enhance its international competitiveness and increase its exports. In addition to the priority now placed on environmental trade liberalization, the U.S. government has focused on several key issues and initiatives that will drive opportunities for this industry (for instance, the President's National Energy Policy). Major beneficiaries of these policy objectives will be goods and services related to air pollution, water and wastewater treatment, sanitation, and clean and efficient energy.

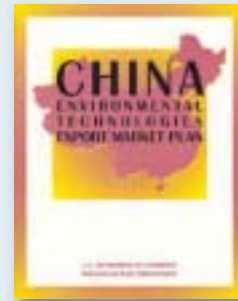
TOP MARKETS

The top 10 markets for U.S. environmental technologies exports are Canada, Japan, Mexico, Singapore, China, France, South Korea, Germany, Taiwan, and the United Kingdom. U.S. environmental exports to the top 20 markets grew 23 percent in 1998–2001 and comprised 89 percent of total U.S. environmental technologies exports in 2001. While developed nations are the largest and most advanced markets for U.S. environmental technologies, the highest growth rates are in major developing markets. Among the top 20 markets, nine are developing markets, with Mexico and China as particularly important markets for U.S. environmental technologies. Exports to China have increased dramatically in recent years, while three of the top 20 markets have suffered declines.

ITA PUBLICATIONS ON ENVIRONMENTAL EXPORTS

The U.S. Commerce Department's International Trade Administration (ITA) offers numerous publications on environmental topics, including market assessments and industry overviews. For details, visit the ITA on-line bookstore: www.trade.gov/media/publications. This site includes complete ordering information and free downloading options.

Recently Published



China Environmental Technologies Export Market Plan

China's environmental sector is full of opportunities, but entry into this vast market is daunting. This study should help U.S. companies

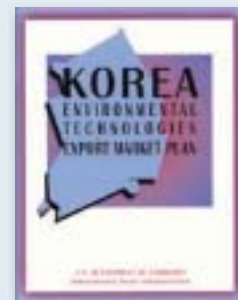
interested in the Chinese environmental sector in five areas: water, solid waste, air, services, and resource management.

Water and Wastewater Technologies Export Market Plan



An extensive report on the global water market, this publication targets U.S. suppliers of water and wastewater

products and services. This report contains strategies for improving U.S. industry competitiveness on a global level. It also outlines opportunities for U.S. exporters in 12 "best prospect" countries.



Korea Environmental Technologies Export Market Plan

This report is a critical resource for understanding the environmental sector in South Korea. U.S. companies that offer

environmental products and services will find this report indispensable to exploring opportunities for export to this important Asian market.

ECP SERVICE CORPORATION**Environmental Exports to Canada**

Headquartered in Des Moines, Washington, ECP Service Corporation is a small environmental products and engineering company, specializing in pollution prevention, waste reduction, and spill response for the maritime industry and general industrial operations. ECP was recruited by several U.S. Department of Commerce (DOC) officials to participate in the U.S. Commercial Service-sponsored Environmental Technologies DealMaker at Globe 2002, a major environmental trade show in Vancouver, British Columbia.

DOC representatives worked with ECP to determine its western Canadian market objectives for Globe 2002. ECP's program for the trade show included one-on-one appointments with potential distributors, a subscription to BuyUSA.com, promotion of the ECP catalog brochure to show attendees, and an exclusive networking reception at the U.S. consul general's residence in Vancouver. As a direct result of ECP's participation in Globe 2002, ECP signed a distribution agreement with a Vancouver area firm, Rocky Mountain Environmental. Sales for ECP have been slow in Canada in the past, but the company now predicts that the new distributor will produce approximately \$150,000 in sales for this year alone.

Geographic proximity, the North American Free Trade Agreement, and a strong commitment to enhancing environmental quality make Mexico a promising emerging market. Other countries in South America may also offer greater opportunities ensuing from the U.S.-Chile Free Trade Agreement as well as the proposed Free Trade of the Americas Agreement.

Asia (excluding Japan) was the fastest-developing region, with 12 to 18 percent annual growth in the 1990s before the Asian economic crisis brought down overall growth and potential demand in these markets. Most Asian markets are recovering and have excellent long-term potential. China's size, growth, diversity, and WTO accession make this market a leading opportunity for U.S. environmental exports.

China

China already presents an enormous area of opportunity for U.S. environmental technologies. China plans to spend \$85 billion to meet its

environmental goals for its current Five-Year Plan (2001–2005). For the 2008 Olympics alone, China intends to spend \$12 billion on environmental projects.

Exports to China increased 62 percent between 1998 and 2001. Competition among foreign suppliers is fierce. U.S. market share is slipping as U.S. firms compete with government-subsidized efforts of European, Japanese, Canadian, and Australian companies that are able to tie large sums of multilaterally sourced funding, as well as offer low-interest "soft" loans and extended repayment terms. Foreign government representatives often act as development consultants and provide local Chinese authorities with free technology demonstrations and internships in order to lay the groundwork for follow-on contracts.

China's recent accession to the WTO and attendant reduction in trade barriers increases the market potential further. Given China's WTO membership, foreign service suppliers now

may establish a commercial presence in China and provide environmental services in the form of joint ventures with foreign majority ownership permitted.

The solid and hazardous waste management sector represents an excellent opportunity for U.S. companies to seize a share of what promises to become a rapidly growing market. Pollution abating and monitoring equipment has great market potential in China because the quality of locally produced equipment is poor. Major projects in China, such as the South to North Water project and the National Water Monitoring program, represent significant commercial opportunities in fields in which U.S. companies excel. Market demand is developing for innovations, cleaner production, and resource management techniques that simultaneously protect the environment and save or generate money, either through increased efficiency or by reusing and recycling by-products.

Mexico

U.S. exports of environmental technologies to Mexico grew from \$3.1 billion to approximately \$4.2 billion between 1998 and 2001. The long-term potential of this rapidly growing market is impressive. Mexico invests more money in the environmental sector than any other Latin American country, except Brazil. Water and wastewater investments represent approximately 60 percent of Mexico's environmental market, followed by air pollution control equipment at 21 percent; municipal and hazardous waste at 12 percent and 5 percent respectively; and soil remediation and the generation of alternative fuels that each represent about 2 percent of the total market.

Most recent estimates show that the United States supplies 60 percent of Mexico's total environmental technologies market (approximately \$2.3 billion) and 73 percent of Mexico's overall environmental imports. U.S. environmental imports from Mexico are minimal. U.S.

technology is extremely well received, and the Mexicans generally prefer U.S. products for their quality, compatibility, and advanced technology.

U.S. products and services have traditionally dominated Mexico's environmental market. The closest competitors are Germany, Canada, Spain, and Japan, each with less than a 5 percent share of environmental imports. U.S. companies can expect an increase in competition from European suppliers due to the free trade agreement signed between Mexico and the European Union in 2000. European companies will have an advantage over suppliers from other regions because the euro is undervalued against the Mexican peso. European firms are also able to provide their clients with extremely competitive financing terms.

Mexican President Vicente Fox has shaken up the Mexican establishment by defining environmental protection as a matter of national security. His administration has demonstrated a strong commitment to improving the environment in Mexico. This commitment has translated into a major boost in the demand for environmental products and services. Since most local governments lack adequate capital, increased service fees will be the main mechanism to attract private investment to the water and wastewater sector. President Fox recently proposed a 50 percent increase in water usage prices to pay for the much-needed infrastructure improvements in this area.

Most recently, the U.S. Export-Import Bank and Banobras (Mexico's development bank) agreed to provide a \$100 million credit line to more than 40 Mexican municipalities to fund environmental projects. In these projects, U.S. companies provide products and services in the areas of renewable energy, water, and waste. All together, these present an unprecedented opportunity for U.S. firms to join several major projects in Mexico with financing already in place.

FINANCING

Large, multilateral development banks (such as the Inter-American Development Bank, Asian Development Bank, World Bank, and others) fund projects that are a significant source of overseas revenue for U.S. environmental firms. In order to help U.S. companies capitalize on multilateral development bank (MDB)-financed projects, the U.S. Commerce Department's Office of Environmental Technologies created in January 2000 a seminar program on tools to finance exports of environmental products and services. Since then, this finance road show has traveled to 11 U.S. cities, and tentative plans have been made to produce six seminars in the first six months of 2003. The road show provides environmental business executives with a hands-on presentation of the various grants and export finance programs that are available to U.S. companies from representatives of the U.S. Export-Import Bank, the U.S. Trade and Development Agency, Ecolinks, the Global Technology Network, the

U.S. Department of Commerce, and MDB commercial liaison offices.

The global environmental market is vast and rapidly growing. Environmental technologies exports are an important part of a global trend of economic development combined with strong ecological concerns. Given the strength of the U.S. environmental industry, U.S. environmental technologies exports should continue to play a very significant role in the global market. ■

David O'Connell, David Earle, Susan Simon, and Ellen Zeytoun contributed to this article. To learn about the Office of Environmental Technologies Industries, its entire staff, and the environmental sector, visit www.environment.ita.doc.gov. Data on environmental sectors and markets vary significantly due to inexact definitions of the environmental technologies industry. Key data sources include Environmental Business International and the OECD (for market sizes and employment), as well as the U.S. Department of Commerce (for detailed trade flows based on an expanded HTS-based list of environmental technologies products).

TIERRA DYNAMIC

Cleanup in Emerging Markets

With 30 employees, Tierra Dynamic has moved boldly into overseas markets. Operating out of Phoenix, Arizona, this company specializes in the removal of toxins from soil and water. Tierra Dynamic has the rights to a patented technology that enables the firm to cultivate naturally occurring bacteria and then induce the bacteria to eat spilled hydrocarbons and other material at a rapid rate. The process allows soil remediation at three times the rate of comparable methods.

Tierra Dynamic has other international projects and applications of environmental technology. The company has focused on South America, particularly Argentina and Brazil, although it has also made forays in Southeast Asia. Over just a few years, Tierra Dynamic has developed business overseas that accounts for 25 percent of its annual revenues. According to Dan Kelley, chief executive officer of Tierra Dynamic, international business development includes tapping U.S. Department of Commerce resources: "Our success in penetrating two of the largest markets in South America is a direct result of the substantial help and assistance provided by the Commercial Service." To read more about Tierra Dynamic, see the February 2002 issue of *Export America*.

Renewable and Efficient Energy Exports

An Assessment through 2012

by the Energy Division, Trade Development

During the next 10 years, worldwide trade in renewable energy equipment and services, and in energy efficiency products and services, will continue the very rapid growth experienced during the previous decade. High growth in market demand and supply, as measured by total sales as well as systems and megawatts of power installed, is being driven by three main factors:

- increased awareness of and concern for ecological balance and environmental protection by populations around the globe;
- the impact of sustainable economic development and energy policies being carried out by many major developed and developing countries around the world, as a response to national environmental sensitivities and the need to increase economic efficiency; and
- expanded efforts to bring energy, communications, education, and health services to the 40 percent of the world's population living in rural areas of many developing countries.

Led by a group of key geographic regions and specific countries, worldwide

trade in several different renewable energy technologies grew at very high rates. For example, in the 1991–2000 decade, U.S. export sales of solar photo voltaic (PV) cells, modules, and panels grew by an average of 25 percent yearly. In 2001, solar PV export sales grew even more dramatically, increasing by almost 34 percent over 2000 levels. If solar PV export sales continue to increase at double-digit levels, the value of all U.S. solar PV exports will exceed \$1 billion in 2002, and \$5 billion by the end of the decade. Since U.S. market share of the total global solar PV market has remained within a fairly constant range of 23 to 24 percent, worldwide trade in solar PV systems and equipment may total \$20 billion by 2010.

SOLAR PV TECHNOLOGY

Two trends are driving this demand for solar PV technology. One is the rapid evolution of distributed power generation in urbanized developed countries through the use of building integrated solar photo voltaic (BIPV) technology. BIPV technology allows on-site electricity generation while a building is still connected to a utility power grid. Japan, Australia, New Zealand, Canada, and several countries of the European Union lead the world in BIPV applications for both commercial and residential locations. This trend has also begun within the United States on a limited basis in some sun-belt states.

The second trend affecting solar PV demand is the equally rapid increase in on-site solar power generation in rural villages and households, and in water pumping for agricultural or livestock watering in many large developing countries. South Africa and other countries in southern Africa, Morocco, Egypt, Mexico, Brazil, the Andean countries, countries of Central America, India, Pakistan, China, and Southeast Asia lead the world in rural, on-site solar PV development.

WIND POWER

Worldwide wind turbine sales and installations as well as regional utility-scale wind power projects have expanded at even faster rates than solar PV technology. During the 1985–1992 period, installed wind power worldwide plateaued under 4,000 megawatts (MW). At the end of 1993, the European Union had slightly more than 1,000 MW of wind power installed.

However, by 2001, worldwide wind power had dramatically grown to a level of 24,000 MW installed, with 17,000 of that in the European Union. The European Union has a target of an additional 39,000 MW of wind turbines to be installed during the 2002–2010 period. Meanwhile, India and China each expect to install over 10,000 MW of wind turbines, and plans exist in Brazil, the United States, and Mexico to install a cumulative

total of several thousand megawatts of wind turbines during that same period. Small-scale wind turbines are used for rural household and village power generation in developing countries, as well as for on-site power needs of communication relay systems. The total value of global wind power markets may exceed \$200 billion by the end of the first decade of this century.

HYDROPOWER, GEOTHERMAL, AND BIO-ENERGY TRENDS

While the development of geothermal, bio-energy, and small hydropower projects has been much slower than that of solar PV and wind power, the use of these technologies nonetheless has increased as well. During the past decade, more than 2,000 additional megawatts of geothermal power have been developed in the Philippines, Indonesia, Mexico, and several Central American countries. The value of the equipment and services associated with geothermal energy development totals several billion U.S. dollars. If the countries of eastern Africa, where large geothermal resources exist but little has been developed, are included with those of Central America and Southeast Asia, a startling 95 percent of potential geothermal energy remains to be accessed and developed.

Similar circumstances surround small hydropower development and bio-energy development. In both cases, the potential of these renewable energy resources in many developing countries dwarfs that of what has been developed in projects during the past 15 years. Of particular note has been the use of agricultural wastes to produce utility-scale power while processing cash crops, such as sugar, coffee, and rice. Brazil, the countries of Central America, Turkey, Nepal, India, China, and the countries of Southeast Asia and sub-Saharan Africa are major potential markets for expanded small hydropower and bio-energy power project development. The total value of equipment and services associated with such projects is in the same range

as that which has been projected for geothermal power development.

ENERGY EFFICIENCY

Finally, the market for the broad range of energy efficiency products, including building insulation, motors, engines, lighting, and industrial heat recapture, has rapidly increased in both developed and developing countries around the world. This has been driven as much by concern over improving economic efficiency as it has been by energy conservation.

The markets for renewable energy and efficiency equipment and services are expected to continue their rapid growth as a result of implementation of the Kyoto Protocol, once it is fully ratified. The creation of "green energy credit" programs in Australia, New Zealand, Canada, and the European Union, and the worldwide implementation of the "greenhouse gas emissions reduction credit trading" provisions of the Kyoto Protocol are expected to foster market demand through the impact these credits have in reducing the costs of renewable energy and efficiency technologies. ■

U.S. GOVERNMENT

Energy Division

International Trade Administration
U.S. Department of Commerce
www.trade.gov/td/energy

Office of Environmental Technologies Industries

International Trade Administration
U.S. Department of Commerce
<http://environment.ita.doc.gov>

U.S. Commercial Service

Industry e-Alerts
www.export.gov/e-newsletters

U.S. Department of Energy

www.energy.gov

U.S. Environmental Protection Agency

www.epa.gov

EVENTS AND ASSOCIATIONS

The U.S. Commerce Department offers numerous trade events around the world for small and medium-sized exporters. At the back of each issue, *Export America* lists events in several industries.

For more information and additional environmental trade events, visit www.export.gov and select the "Trade Events" link. From there, search under "International Trade Events" by specific environmental sectors, such as pollution control equipment, renewable energy equipment, and water resources equipment and services.

The Commerce Department's Office of Environmental Technologies Industries (ETI) also compiles seminars, exhibitions, conferences, and other events. Visit the ETI Web site at <http://environment.ita.doc.gov> and select the "Calendar of Events" link. The site also includes a handy list of environmental organizations under the "Trade Associations" link. ■

Upcoming Trade Events

November 2002–June 2003

DATES	EVENT	LOCATION
November 4–8, 2002	Laboratory, Analytical, and Scientific Instruments This is a laboratory, analytical, and scientific instruments matchmaker trade delegation. The focus of the delegation will be to match participating U.S. companies with qualified agents, distributors, representatives, licensees, and joint venture partners in these markets.	Brussels, Belgium; Utrecht, The Netherlands
November 6–8, 2002	Air Show China 2002 The China International Aviation and Aerospace Exhibition (Air Show China) is the only international aerospace exhibition in China that is approved by the Chinese government. The show features full-size displays, trade discussions, technical exchanges, and flying demonstrations.	Zhuhai, China
November 6–8, 2002	Metal Mecanica 2002 This is the fourth international exhibition and conference for precision metal forming, steel construction, manufacturing, transportation, welding, electro-mechanical technologies, and related arts and sciences. This event attracts more than 200 exhibitors and 4,500 professional trade visitors.	Mexico City, Mexico
November 12–15, 2002	Business Development Mission Secretary of Commerce Donald L. Evans will lead a business development mission to Accra, Ghana, and Johannesburg, South Africa. The delegation will include approximately 15 U.S. senior executives of firms of all sizes, representing a variety of business sectors.	Accra, Ghana; Johannesburg, South Africa
November 13–17, 2002	Aviex 2002 Air Show This business forum and exhibition is for the general aviation industry. This year's annual Airline Pilots and Owners Association Conference will be held in conjunction with Aviex. The professional environment will enable small and medium-sized companies to gain exposure for their products and services.	Sydney, Australia
December 2–4, 2002	Secretarial Trade Mission Secretary of Commerce Donald Evans will lead a business development mission to Peru and Chile. The focus of the mission will be to help U.S. companies explore business opportunities in these countries. The delegation will include approximately 15 U.S.-based senior executives of small, medium-sized, and large U.S. firms.	Lima, Peru; Santiago, Chile
December 2–7, 2002	ITU Telecom Asia 2002 This fair will attract world and regional leaders from telecommunications industries and information technology fields, as well as key government officials from across the region. More than 30,000 buyers and 20,000 exhibitors will be present.	Hong Kong
January 9–12, 2003	Reisleiv 2003 The annual Reisleiv event is Norway's only national travel and tourism show. The show is one of the premier travel shows in northern Europe. The 2002 show, despite the aftermath of September 11, attracted nearly 40,000 visitors, including almost 13,000 industry professionals.	Oslo, Norway
January 16–19, 2003	Matka Travel Fair 2003 The International Matka Travel Fair takes place annually and is the largest travel fair in Scandinavia by number of visitors. More than 74,500 travel trade professionals and consumers visited the last fair. The U.S. Commercial Service in Helsinki has traditionally organized a U.S. pavilion to promote travel to the USA.	Helsinki, Finland
January 25–February 3, 2003	Antwerp Travel Fair The annual Travel Fair in Antwerp is a major public event for the travel and tourism industry. The 2002 Antwerp Travel Fair attracted more than 150,000 consumers. Although this show covers mainly the northern part of Belgium, it is highly recommended by Belgian travel and tourism industry specialists.	Brussels, Belgium

HIGHLIGHTED EVENTS

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REPCOM MEXICO CITY 2002 AND 10TH ANNIVERSARY OF NAFTA SME SEMINAR

DECEMBER 2-5, 2002
MEXICO CITY, MEXICO

The U.S. Commercial Service, Mexico, is hosting a trade mission, "RepCom Mexico City 2002," to Mexico City. The mission is expected to attract participation from approximately 50 U.S. firms, mainly small and medium-sized companies, interested in entering the Mexican market through agent, distributor, licensee, or joint venture arrangements with Mexican partners. The mission will include a day long seminar on how to do business in Mexico, with an evening networking reception, and one or two days of one-on-one appointments with potential Mexican partners.

To commemorate the 10th anniversary of NAFTA, there will be an educational seminar for Mexican exporters, organized by the Mexican export promotion agency, Bancomext, to be held concurrently with the seminar for U.S. exporters on December 3. There will be joint seminar sessions (e.g., a plenary session featuring President Fox and other dignitaries), a networking luncheon, and a reception. Representatives of U.S. trade promotion agencies, such as the Export-Import Bank, Overseas Private Investment Corporation, and Small Business Administration, are expected to participate in the seminar and address both the Mexican and U.S. audiences.

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TEXTILE AND APPAREL TRADE MISSION

DECEMBER 8-14, 2002
CAPE TOWN, DURBAN, AND
JOHANNESBURG, SOUTH AFRICA

The U.S. Commerce Department's Office of Textiles and Apparel will sponsor a trade mission to South Africa, December 8-14, 2002, for U.S. producers of fibers, yarns, threads, and fabrics. Under the terms of the African Growth and Opportunities Act, apparel manufactured in certain sub-Saharan Africa countries can be exported to the United States quota-free and duty-free, if it contains U.S.-sourced yarns, fibers, and fabrics. American mills have limited familiarity with sub-Saharan Africa in terms of the structure of the cotton industry, the yarn and fabric supply chain, and the garment manufacturing industry.

Continued on page 33.

DATES	EVENT	LOCATION
March 5–8, 2003	Tau Expo 2003 Tau Expo is the most important trade show of this sector in Italy and in the Mediterranean area, and it is also one of the foremost environmental shows in the world. The show attracted some 25,000 attendees in 1999. Exhibits include fields such as water treatment and purification, waste disposal, secondary material recycling, air purification, land reclamation, biotechnology, energy reuse, and renewable sources of energy.	Milan, Italy
March 17–21, 2003	Health Care Technologies Matchmaker Copenhagen, Denmark; Stockholm, Sweden; Oslo, Norway This is an excellent networking opportunity for health care and medical companies. There will be a special focus on the tele-health sector, which is experiencing strong growth in these markets.	
March 17–21, 2003	Automotive Parts and Services Matchmaker This event offers one-on-one, pre-screened appointments at each stop. Briefings, logistical support, and hospitality events will be provided in each market.	Budapest, Hungary; Warsaw, Poland; Bratislava, Slovakia
March 23–25, 2003	Expozoo 2003 This is the top show in Europe's largest market for pet products; France has more pets per capita than any other European country. The last show featured over 250 exhibitors representing more than 750 brands. The show confirmed its international reputation by attracting more than 16,000 pet trade professionals.	Paris, France
March 23– April 3, 2003	Medical Device Trade Mission This mission will focus on the medical/dental device and clinical laboratory equipment sectors. A limited number of firms from health care services as well as pharmaceutical and biotechnology industries also could participate. Companies are encouraged to participate in all four countries, but participants have the option of selecting stops from the itinerary.	Vietnam, Thailand, Malaysia, Singapore
April 4, 2003	NAB 2003 NAB is the world's leading conference and exhibition for electronic media communications. This will be an excellent opportunity for U.S. suppliers to interact with foreign buyers.	Las Vegas, Nevada
April 9–12, 2003	Bologna Children's Book Fair The Bologna Children's Book Fair is the largest such event in the world. It features both books and multimedia materials. There have been two U.S. pavilions for years—one in the book section of the fair and one in the multimedia section. The U.S. Book Display, organized by the U.S. Commerce Department's Office of Consumer Goods, is designed to provide small publishers who do not wish to attend in person an opportunity to exhibit their products.	Bologna, Italy
May 19–23, 2003	Electronic Americas Electronic Americas is the largest event of its kind in South America for electronic components, assembly, and production. Electronic components is the best prospect for U.S. exports to Brazil. Participation in an event of this magnitude is an ideal venue for small and medium-sized U.S. companies to gain exposure or to expand their presence not only in the Brazilian market but also in the surrounding region.	São Paulo, Brazil
June 1–6, 2003	Automotive Parts and Service Equipment Trade Mission Costa Rica and Panama both rank the automotive parts and service equipment sector as the fourth-best prospect for U.S. exports. Guatemala ranks this sector as the number one prospect for U.S. exports.	Panama City, Panama; San Jose, Costa Rica; Guatemala City, Guatemala
June 13–16, 2003	Exhibition on Environmental Technologies (ENVEX) 2003 Established in 1979, ENVEX is the premier environmental exhibition in South Korea. As the South Korean government has placed more emphasis on the environment, Korean companies are looking for the latest environmental technologies. ENVEX will display products from all environmental sectors.	Seoul, South Korea

INDUSTRY CONTACT INFORMATION

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Continued from page 31.

The mission members will meet with textile industry and apparel trade associations for information on local economic and resource infrastructure, logistics, and other factors related to the ability of local producers to meet the supply and cost needs of apparel buyers.

Mission members also will meet with buyers, agents, and distributors to establish new relationships leading to sales contracts.

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**CHINA INTERNATIONAL ENVIRONMENTAL
PROTECTION EXHIBITION AND CONFERENCE
(CIEPEC) 2003**

**JUNE 5-8, 2003
BEIJING, CHINA**

Established in 1986, CIEPEC is the largest professional environmental protection exhibition in China. This will be its eighth session. CIEPEC allows foreign participants to gain a full understanding of Chinese environmental policies and technologies. Major Chinese and international environmental enterprises and organizations attend CIEPEC to forge communication links and commercial relationships.

Contact:
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China Association of Environmental Protection Industry
Tel: +86-10-6839-3245
E-mail: caepi@public3.bta.net.cn
Web site: www.chinaenvironment.com/ciepec2003

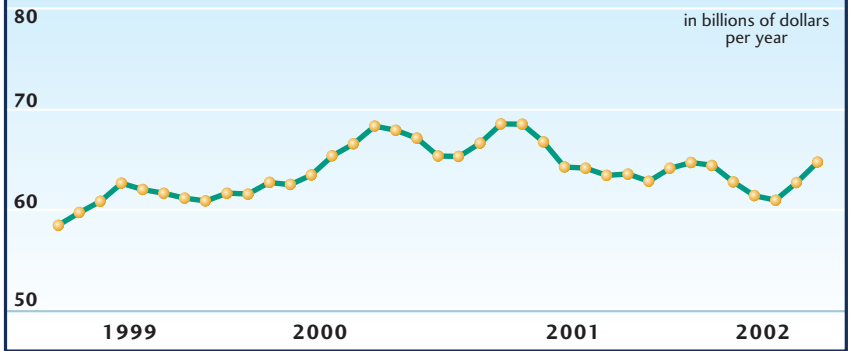
**A full listing of upcoming trade events
is available via <http://export.gov>.**

Quarterly Trade Data

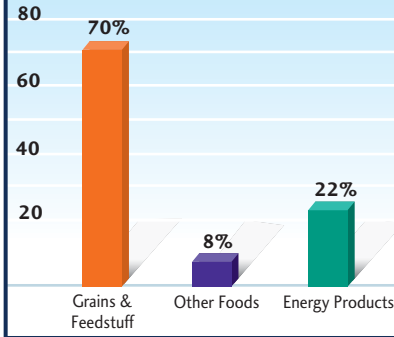
As of Second Quarter 2002

FOOD AND ENERGY

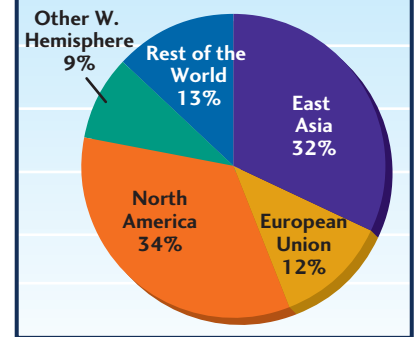
RECENT TRENDS



COMPOSITION

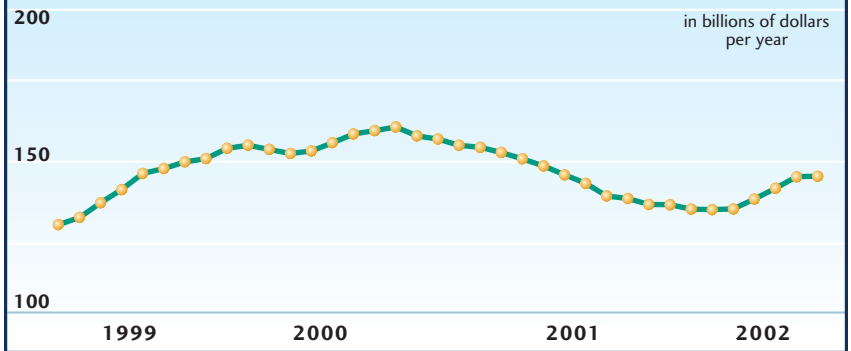


DESTINATION

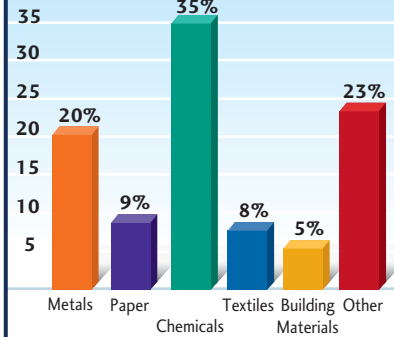


MATERIALS

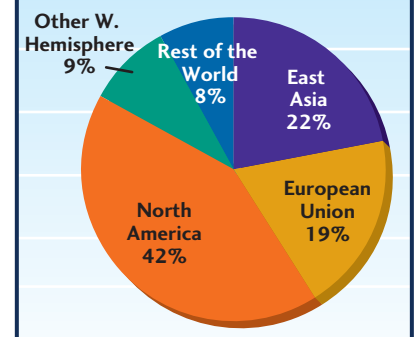
RECENT TRENDS



COMPOSITION



DESTINATION



Monthly data are centered three-month moving averages, based on seasonally adjusted figures and expressed as annual rates.

Product categories (except for services) are based on end-use classification. Commercial services include all private services.

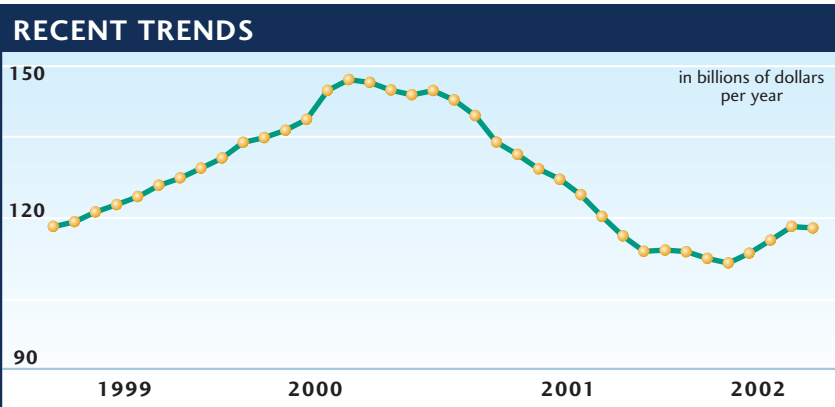
North America: Canada and Mexico.

European Union: Austria, Belgium, Denmark, France, Finland, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

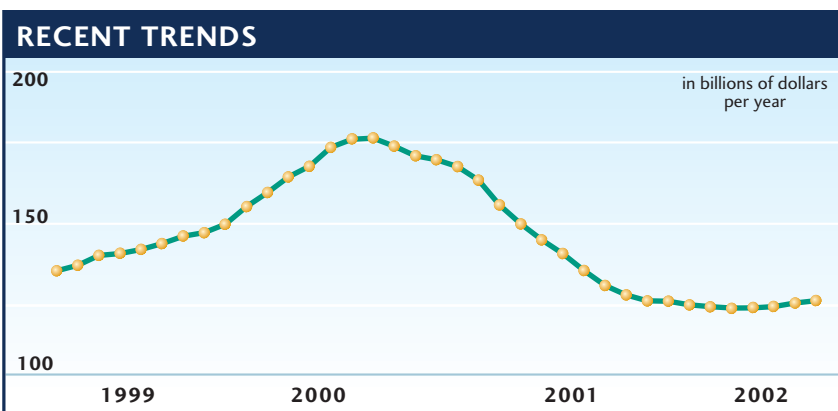
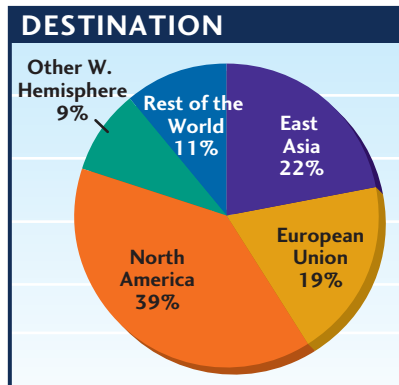
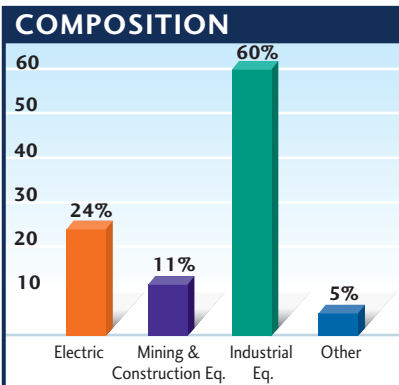
East Asia: China, Hong Kong, Indonesia, Japan, Malaysia, the Philippines, Singapore, South Korea, Taiwan, and Thailand.

The chart showing exports of services by region is based on data for calendar year 2000. Other charts showing product mix and destination are based on data for the year ending July 2002.

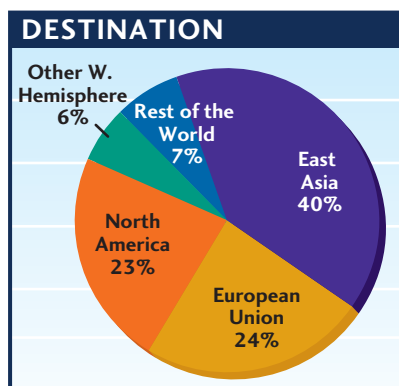
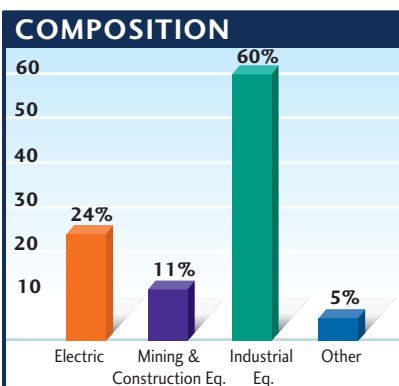
Source: Bureau of the Census (goods), Bureau of Economic Analysis (services).



MACHINERY

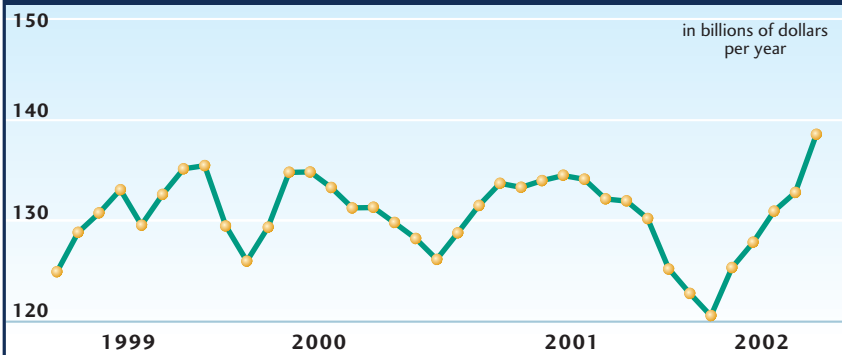


ELECTRONICS AND INSTRUMENTS

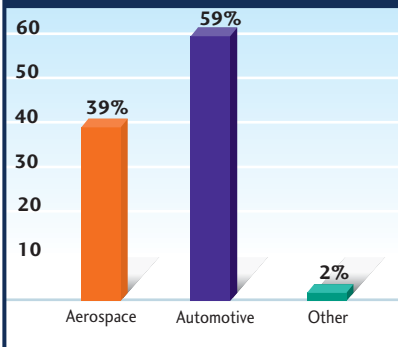


TRANSPORTATION EQUIPMENT (CIVILIAN)

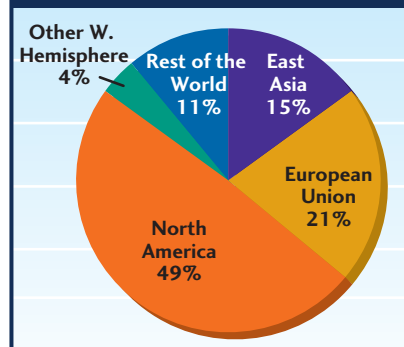
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COMPOSITION

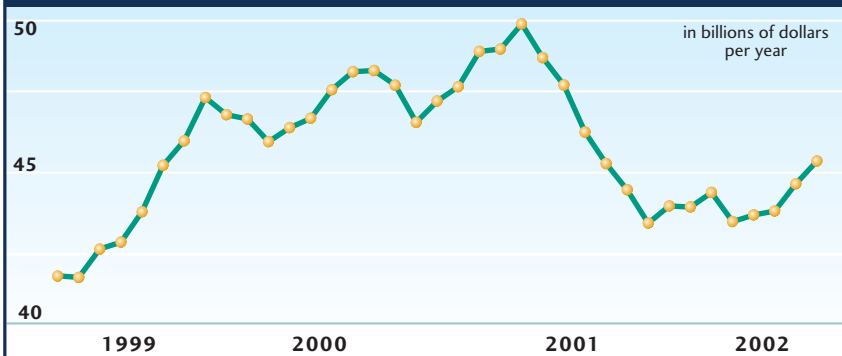


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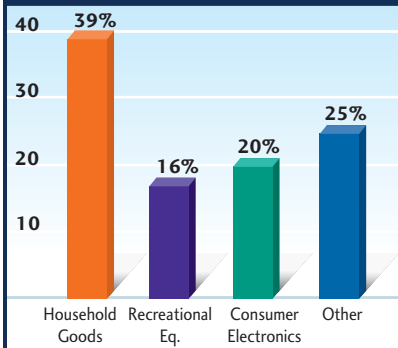


CONSUMER DURABLES

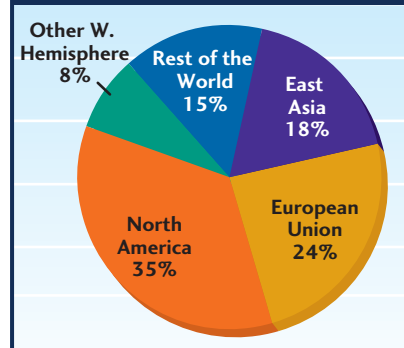
RECENT TRENDS

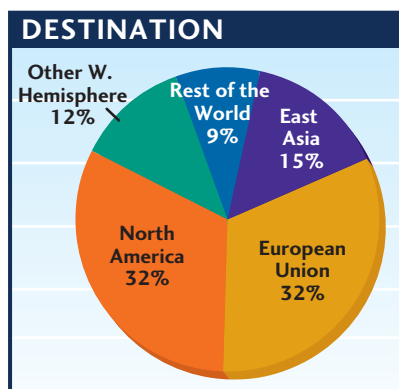
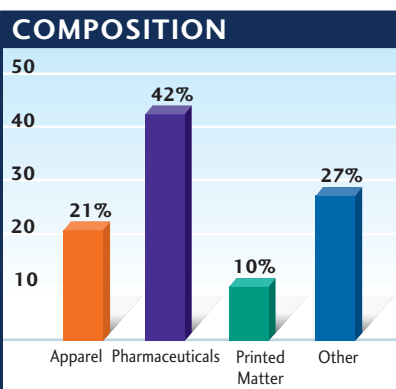
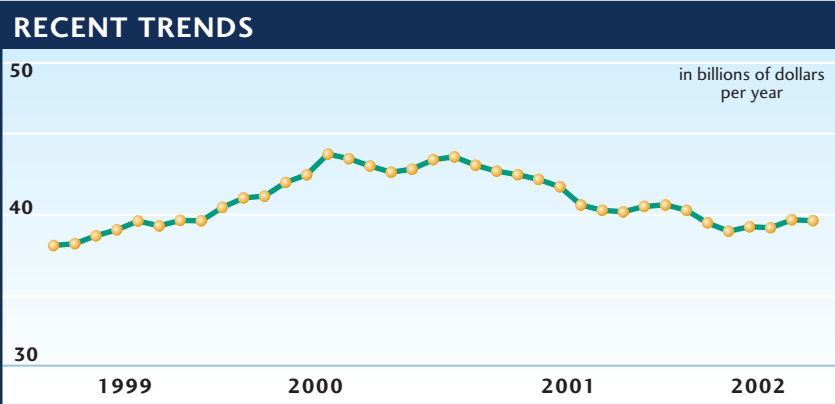


COMPOSITION

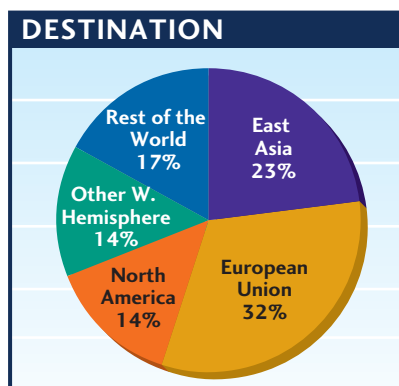
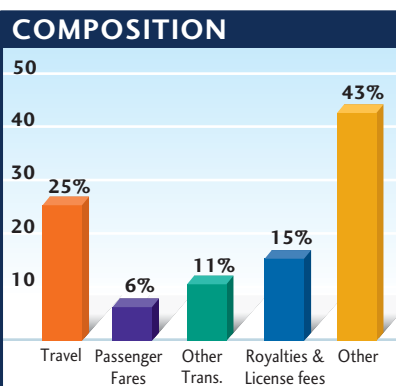
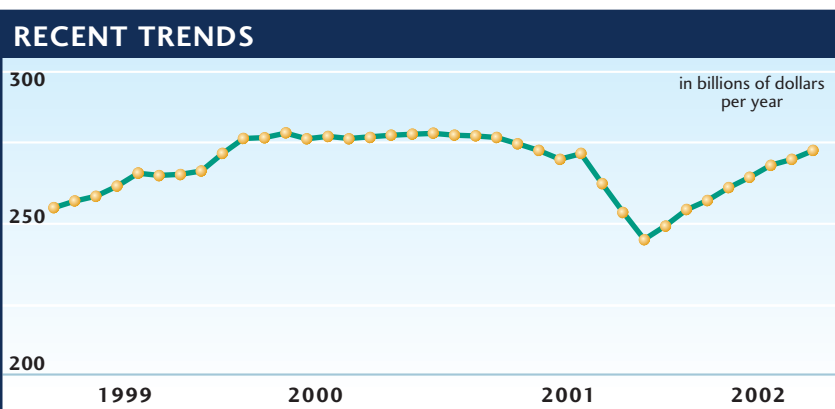


DESTINATION





CONSUMER NON-DURABLES



COMMERCIAL SERVICES

Additional information is available from the International Trade Administration (www.export.gov/tradestats), the Bureau of the Census (www.census.gov/foreign-trade/www), and the Bureau of Economic Analysis (www.bea.gov).

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