

**MAKING WOOD WORK:  
A Survey of  
Value Added Policies and Programs**

**Contractor  
Pacific Northwest Economic Region  
by  
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- *Helen Birss*

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# Making Wood Work:

## Value Added Policies and Programs

### Executive Summary

The Northwest is undergoing fundamental changes in the way forest resources are managed, grown, harvested, and manufactured into products. One way of maximizing the economic benefit of the available wood supply is to add to its value through further processing before it leaves the region. The Northwest Policy Center has reviewed numerous existing initiatives in order to identify what types of programs and policies are needed to stimulate value added wood products manufacturing in the Northwest.

This report profiles initiatives that aim to stimulate the development of the value added wood products industry in the Northwest, in such other regions as the Northeast, and in Sweden and Denmark. NPC contacted over 70 programs for this study, and collected information and literature on 13 organizations in Scandinavia and Denmark.

The efforts profiled vary widely in their scope, structure, and geographic coverage. Many programs focus their efforts specifically toward the wood products industry, while others work with many other sectors as well. Programs also vary in structure; public and private entities have formed service partnerships, state and federal programs provide direct services to the wood products industry, and private non-profit organizations have initiated their own programs that provide technical expertise and services. Groups vary in the extent to which they have direct ties to the industry. In addition, program service areas range from local to larger areas including multi-state regions.

Services offered by these agencies and other entities range from technical, marketing, and export assistance to education and training programs; from assistance in establishing flexible manufacturing networks to research and policy development. Training programs offer a range of opportunities in meeting the employment needs of the wood products industry. These programs include those that train the existing workforce, future workforce, and displaced workers. Marketing programs provide such services as market research and information on accessing markets. Flexible manufacturing network formation is a relatively new strategy where businesses have banded together to share the costs of developing a new product or reaching additional markets. Research on silvicultural techniques reveals ways to grow higher quality and higher valued wood. In addition, export assistance has been instrumental in helping small wood product firms obtain export financing and access to export markets. Technical assistance programs provide such services as access to advanced technology, and counsel on modifying plant and equipment.

Seven elements seem key to shaping effective value added wood products initiatives:

- build public-private partnerships;
- coordinate with related and complementary programs;
- promote cooperation and communication within the industry;
- organize regionally;

- get the commitment of public leaders;
- target sectors and services; and
- be flexible, so as to meet changing industry needs.

Public-private partnerships help insure that value added programs meet the needs of the industry they are attempting to serve. These partnerships vary in such characteristics as industry membership or boards of directors, which can insure their involvement in the design and implementation of programs. For example, Washington's Evergreen Partnership is a private non-profit organization that promotes Northwest wood products in national and international markets. Of the 19 seats on its board of directors, 10 are reserved for forest products and building materials representatives; nine are filled by representatives of the public sector.

Government can also partner with companies by providing financial assistance to private sector efforts. Oregon Economic Development Department's Key Industries Program has a matching-grant program that works as an incentive for businesses to initiate flexible manufacturing networks and has proven to be an effective strategy for government stimulating private sector activity.

Coordination between programs promoting value added wood products manufacturing and those addressing other aspects of the industry's competitiveness helps increase effectiveness and efficiency. Coordinating public and private initiatives avoids duplication and better meets industry needs. For example, the Wisconsin Department of Natural Resources and Forward Wisconsin, a non-profit organization that promotes the state's key industries, work jointly on projects aimed at strengthening the forest products industry.

Promoting cooperation and communication within the industry helps firms identify common problems and opportunities. Charged with promoting the secondary wood products industry in Oregon, WPCC has formed five chapters across the state to bring firms within the industry together, to involve them in creating WPCC programs, and to promote networking opportunities, where companies can work together to access markets.

Organizing programs on a multi-state basis can enable program managers to pool efforts and resources, thus streamlining problem solving and delivery of services. For example, the Northeastern Forest Alliance brings together state foresters and natural resource departments from a four state region to address issues common to Northeast forests and the industries dependent upon them.

Support and commitment of public leaders can enhance a program's credibility as well as advance its goals. This goes beyond funding, and includes ongoing commitments of time and expertise. The strength of the commitment can bring about increased participation from both government and industry, can speed program start up, and can make certain government services are provided more smoothly

Targeting specific sectors enables programs to provide the specific expertise needed to help wood products firms improve their competitiveness. For example the Appalachian Export Center for Hardwoods provides marketing assistance to hardwood firms looking to export their value added products.

Making programs flexible, so they can adapt to changes in the wood products industry is

also an important feature of value added wood products initiatives. Keeping the door open to new opportunities and listening to, and learning from, the industry enables managers to determine if they are reaching their program goals.

This report highlights special initiatives, resources available to companies and other interested parties, and provides contacts for further information. Summaries of these value added policies and programs are included in Appendix I-VI.

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## Changes in The Forest Products Sector

The Pacific Northwest's timber lands are highly productive sources of softwood timber. Some of the best softwood in the world is grown in the coastal forests ranging from Northern California north through Oregon and Washington to British Columbia and Alaska. Inland forests in these states and provinces, and in Alberta, Idaho, and Montana, produce softwood timber as well, but in volumes lower than the coastal regions. The harvest levels that have reliably supplied wood fiber to the wood products industry are now in question, as are the jobs of a portion of the people employed in lumber and wood products and pulp and paper plants in the region.

The debate continues over how much of the region's forests should remain in protected wilderness status, how much should be available for harvesting, and what the yearly harvest level should be. In every part of the Northwest which depends on the timber industry, the future of that industry is threatened.

Several factors are threatening the vitality of the wood products industry. The U.S. Forest Service, a major forest landowner in the Pacific Northwest states, is reducing the allowable timber cuts on its lands throughout the region. Litigation is forcing public and private entities in the Pacific Northwest states to reconsider their policies with respect to timber industry activity in old growth forests. While the use of litigation is very limited in the battle over forest use in Canada, strong public pressure on forest management practices, forest monitoring regimes, and alternate land use demands have driven the Canadian challenge. Litigation and the U.S. Fish and Wildlife Service ruling that the northern spotted owl is a threatened species will force severely reduced harvesting rates on federal timberland in the U.S. Reductions on state-owned and private timber are also possible. The President's Forest Conference in April 1993 set the course for future forest management practices and has subsequent plans to make only 1.2 billion board feet available from federal lands.

In addition to supply changes, advances in productivity have reduced the number of jobs that would be generated by each million board feet processed in the region's primary processing plants. In lumber and plywood plants, advanced material handling has eliminated many jobs, while improved sawing and other processing has increased yields. Many local areas dependent on timber processing have had a difficult time adjusting to the loss of family wage factory jobs caused in part by productivity improvements.

At a time when the future supply of the Northwest's natural resources seems permanently constrained, resource dependent industries are rethinking the way they utilize and manufacture products from those resources. For the wood products industry, adding more value is one critical way to maintain profitability and protect jobs.

While other steps are needed to deal with human problems caused by sudden changes in harvest levels, adding more value to wood products before they leave the region is an important means of maintaining the economic vitality of timber dependent communities.



Higher valued and higher quality wood can be grown through pruning and other silvicultural methods. Commodity products can be tailored to the needs of particular customers, resulting in cut stock rather than standard commodity lumber. Altering production processes can add value through additional drying or grading steps, finger jointing, preparation of kits for the do-it-yourself market, chemical treatment for special applications, are among many examples. Remanufacture of lumber products into such items as doors, windows, engineered products for roofs or other applications is a growing opportunity for the region. Expanding foreign markets for high value wood products offer a new market-place where new and expanding Northwest firms can grow rather than compete against well established firms in domestic markets.

Some of these same challenges were addressed in the 1970s and 1980s in the Scandinavian countries. Because of changes in markets, and constraints in the supply of raw material some segments of the industry have undergone major changes. Competition from around the world, especially Germany and the United Kingdom, as well as the relatively high cost of timber forced the commodity oriented Scandinavian producers to restructure. In Sweden and Finland the sawmilling industry went through structural changes that have resulted in companies whose processes are perhaps the most advanced in the world, and are still developing. Firms are currently producing more and better wood products. These sawmills are responding to more demanding customers. Buyers are better informed about alternatives and care about environmental consequences, and are placing more emphasis on economy, flexibility, and terms of delivery. These customers care about superior products, value for money, and lasting supplier relations.

Swedish and Finnish sawmills are committed to serve the joinery industry in supplying products that enhance customers' competitive advantage. As a result of modernization, more sawmills have become specialized in their production. They respond to the specific needs of the secondary wood products industry, especially the furniture industry. These modernized mills can also meet the strict requirements for specific products. To fulfill the requirements for special qualities and dimensions, more grading is done during the process, and products are dried to the specifications of secondary manufacturers.

These trends and other developments within the industry were presented at the Nordic Timber Conference held in Umeå, Sweden in 1990. The Swedish Wood Exporter's Association summarized the new practices: "This period of adaptation is one of extensive structural change, both internal and external, with the sawmills abandoning their traditional preoccupation with raw material and production volumes to concentrate on a flexible, high-quality, market oriented product mix. The today-strategy of the Swedish sawmills gives quality priority over quantity and has resulted in a closer integration between forest, sawmill and market."

## Strengthening Value Added Manufacturing

The wood products industry is a complex of activities ranging from growing and harvesting trees to the manufacture of primary, value added, and secondary wood products. The wood products manufacturing industry can be described either by sector or product produced. The utilization of wood takes place in many sectors of the economy. However, three sectors under the Standard Industrial Classification (S.I.C.) system describe a concentration of wood utilizing industries in the U.S.: Lumber and Wood Products (S.I.C. Code 24), Furniture and Fixtures (S.I.C. Code 25), and Paper and Allied Products (S.I.C. Code 26). In Canada, the following sectors describe similar industries: Saw, Planing and Shingle Mills (251); Veneer and Plywood Mills (252); Sash, Door and Millwork Plants (256); Miscellaneous Wood Industries (259); Household Furniture (261); Office Furniture (264); Miscellaneous Furniture and Fixtures (266), and Pulp and Paper Mills (271). Lumber and wood products is the largest manufacturing sector in the Pacific Northwest, and encompasses commodity lumber and such remanufactured items as cabinets, millwork, and containers. The second largest manufacturing sector is paper and allied products. Furniture is a relatively small sector in the region. (Table 1.)

Other industries that utilize wood are relatively small segments of larger sectors. For example wooden boat manufacturing and wooden musical instrument manufacturing are part of S.I.C. 37 and 39, respectively. Other segments of the economy, although not dependent on raw fiber, are dependent on the wood products industry. An example is manufacturers of equipment used in the wood products manufacturing process (S.I.C. 355). These industries are often referred to as tertiary manufacturers.

Primary, value added, and secondary wood products manufacturing can be defined in a variety of ways because of the variety of products that can be produced, and because adding value can occur at many stages. These products are generally found in sectors 24 and 25. Efforts to add value can occur at all stages, often beginning with decisions about

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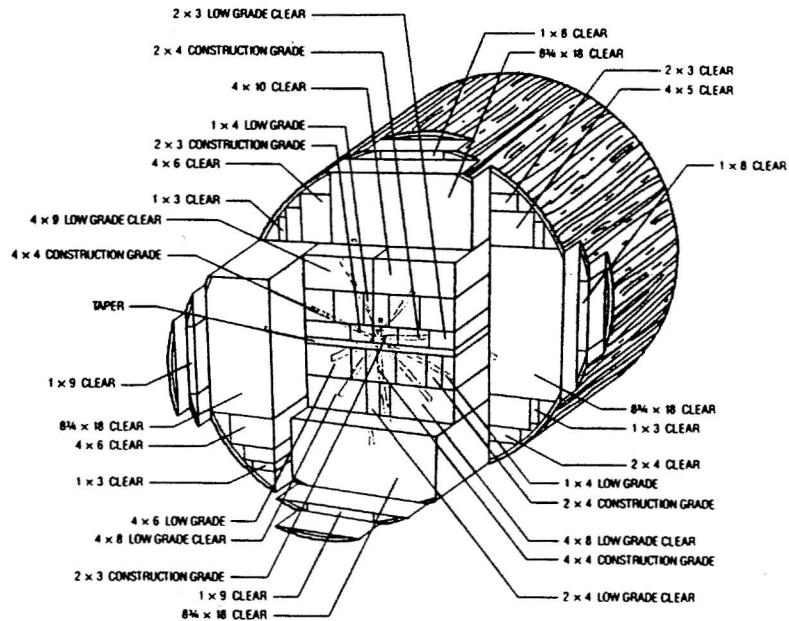
**Table 1: 1990 Employment in Wood Products Sectors in the Pacific NorthWest Economic Region.**

<u>Sector (S.I.C.)</u>		<u>1990</u>
24	Lumber and Wood Products	169,500
25	Furniture and Fixtures	13,100
26	Paper and Allied Products	<u>50,100</u>
Total		232,700

Source: Individual Employment Divisions for the Pacific Northwest States; Statistics Canada for British Columbia and Alberta (Canadian sectors 251, 252, 256, and 259 were grouped with U.S. Sector 24; sectors 261, 264, and 266 were grouped with Sector 25; sector 271 was grouped with Sector 26)

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Figure 1: Log Diagram



Source: McMillan, Bloedel, Ltd.

which trees to log and how they are logged, sorted, and milled. A diagram of a log cut with adding value in mind is shown in Figure 1. The Province of Alberta defines value added as “adding value to products at different processing stages, basically through the application of more labour and capital.” Alberta further defines the range of value added products as shown in Table 2. An Oregon report, *A Strategic Marketing Plan For Expanding Value-added Wood Product Manufacturing* (Mater Engineering, 1989) distinguishes the difference between primary, value-add, and secondary processors: A Primary Processor converts logs to partially processed raw material such as lumber or plywood, a Value-add Processor further manufactures a primary product into component products for specific markets, a Secondary Processor further manufactures a primary or value-add product into a finished or end-use product.

Primary processors take solid wood, often in the form of logs or only slightly processed log products, and manufacture lumber, panels, and other solid wood products. Specifications and standards govern the sizes, quality, dryness, and other aspects of the finished products. For the most part, the output of this sector of the wood products industry is in the form of products that can be described in a set of standards set by industry groups and regulatory bodies.

Secondary manufacturing is a very diverse sector and defies easy description. The secondary wood products industry consists of what is called “remanufacturers” and “value added” manufacturers. Secondary manufacturers use primary wood products and some residual materials from primary processing to produce a wide variety of finished and semi-finished wood products including furniture, cabinets, wall and floor systems, modular and mobile homes, doors, windows, trim boards, and specialty items. Some of these products can be described as standardized commodity items, but many secondary wood products are produced for relatively small, niche markets. A number of secondary

manufacturers produce items of high design or artistic quality; these products are at the opposite end of the spectrum from the standardized commodities characteristic of primary manufacturing. Because of the emphasis on adding value to wood products, some primary manufacturers are expanding to include remanufacturing and value added manufacturing in their operations.

All of these remanufacturing activities involve adding value to wood and other inputs through additional manufacturing. Thus, secondary manufacturing could apply to any activity that goes beyond simple primary commodity manufacturing. Planing lumber to produce siding or flooring materials, machine stress graded lumber, and lumber dried beyond standard construction lumber specifications to suit remanufacturer needs add value but do not represent secondary manufacturing.

Throughout the region, many public and private groups are assessing the opportunities to stimulate the secondary processing industry. British Columbia, Washington, and Oregon have all funded market research efforts to identify value added and secondary processing opportunities. The message of all of these market research studies is quite positive; there are many promising markets for value added or remanufactured products around the globe. In response, new efforts have been undertaken in this region and others to stimulate the wood products industry.

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**Table 2: Categories and Examples of Value Added Wood Products.**

<u>Category</u>	<u>Value Added Product</u>
1. Rough green timbers and squares	Fully surfaced, kiln dried dimension lumber graded to North American standards.
2. Altered or Remanufactured Lumber Products	
a. Dimension lumber	Non-structured applications: Fence boards, paneling, pallet stock and other cut to order pieces.
b. Rough lumber	Fully surfaced, kiln dried construction grade material. Also pressure treated lumber.
3. Semi-Finished Solid Wood Blanks	Manufactured and sold mostly to furniture, window, stair and door manufacturers. Also may include fingerjointing and edge gluing, drying, machining, and finishing.
4. Ready-To-Assemble (RTA) Components	Components for furniture, windows, stairs, and doors. Requires specialized machinery, equipment, metal fittings, and sophisticated packaging.

**Source:** Alberta Department of Forestry, Lands and Wildlife, Discussion paper on *Value Added Strategy in Alberta's Sawmilling Industry*.

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## New Value Added Industries

Summaries of some of the most successful programs that directly or indirectly target the wood products industry are featured in the following three sections of this report. The first section describes the structure of programs and the various relationships between the public and private sector. These relationships include public-private sector partnerships, public programs that serve the private industry, and private industry initiated programs. The second section describes a diverse set of services offered by programs. These include marketing, technical, and export assistance programs to training and education initiatives, to stimulated flexible manufacturing networks research and policy development. The last section summarizes lessons in program design and implementation learned as these programs continue to emerge.

### Relationships Between the Public and Private Sectors

Programs that emphasize the wood products industry are operated at all levels of government and by private non-profit organizations, private consulting firms, and regional organizations. The characteristics of these groups differ widely, including the extent to which they have ties to the timber industry. Many programs stress the importance of building a strong relationship with the wood products industry, and industry involvement in program design and implementation. Five program types are described below: public-private partnerships, local and state governmental programs, federal initiatives, private sector programs, and regional projects.

#### Public Private Partnerships

Two types of partnerships are profiled here: partnerships organized with public and private sector representation on boards of directors from the outset, and partnerships, usually initiated by state government, that involve the industry in an advisory capacity, or in projects that require equal financial participation such as matching grants. Both types of partnerships directly involve public and private sectors, coordinate efforts among interested parties, and work to meet the needs of the industry.

An example of a union of state government and private interests is the *Evergreen Partnership*, a private non-profit organization established by the State of Washington in 1985 to represent and serve the forest products industry. Their 19-member Board of Directors has ten seats reserved for representatives of the forest products and building materials industries. Two board positions are automatically filled by the agency heads of two State of Washington departments: Natural Resources, and Trade and Economic Development. The remaining positions are elected from their membership at large. The Evergreen Partnership provides links between international buyers and the Pacific Northwest forest products and building materials industries. Its primary purpose is to

cooperatively aid the development and expansion of international and domestic markets for the Pacific Northwest wood products industry.

Established by the State of Oregon in 1991, the *Oregon Wood Products Competitiveness Corporation* (WPCC) is directed by owners or managers of secondary wood products manufacturing firms. This organization is charged with assisting the state's secondary wood products industry in becoming "the finest, most competitive value added producer in the world." WPCC is committed to establishing programs that directly benefit the secondary wood products industry. WPCC publishes a bimonthly newsletter, and has formed regional chapters, held conferences, sponsored two educational tours, and initiated a series of seminars for producers. Originally formed as a state agency, WPCC is now a private non-profit organization.

Within the Canada-British Columbia Partnership Agreement on Forest Resource Development (FRDA II) the *Opportunity Identification Program* is designed to work with the secondary and the tertiary forest product industry to encourage the development of these components of the forest sector. The Program is co-funded between the federal and provincial governments but also draws upon private sector support and direction for specific initiatives. Activity includes market assessment and development, assistance in technology and product assessment, and the examination of challenges and opportunities in the forest sector.

*Forintek Canada Corporation* is a joint public and private funded research agency. The public funding is from the federal and provincial governments. Forintek works, often in cooperation with private companies or consortia of companies, and public agencies, on solid wood topics in resource assessment, advanced manufacturing (lumber), drying and protection, advanced manufacturing (composites) and building systems. The work plan for Forintek is established through a consultation process which involves a number of technical advisory committees. The process incorporates considerable flexibility through annual review.

In British Columbia the *BC Wood Specialties Group* was formed in early 1989 as a joint initiative of the federal and provincial government. Financial support is provided by the two levels of government and from approximately 70 member companies. The BCWSG has a prescribed role to provide market information and to provide education and training required for effective management in secondary manufacturing of solid wood products.

Several examples of public-private partnerships are found in the Midwest and Eastern United States. *Forward Wisconsin* is a public-private cooperative venture. Created in 1984, this private non-profit organization is funded through state and private sources and has a board of directors that includes state and private industry representatives. Private sector representation includes Wisconsin's utilities, banks, educational institutions, investment and law firms, manufacturers, and a union representative. Public sector representation includes the Governor, four state legislators, and the secretary of the Department of Development. *Forward Wisconsin* has targeted ten industries, one of which is the wood products industry. They coordinate their efforts to boost the state's image within and outside the state, to project the state's positive business climate, and to attract industry to Wisconsin.

In Scandinavia, the *Danish Technological Institute* (DTI) is strongly supported by both the public and private sector. DTI, based in Taastrup in the Copenhagen area and Aarhus on the Jutland Peninsula, is a national institute for applied technology development. DTI

is organized along industrial lines. It has a wood products department at the Aarhus facility which is engaged in furniture design and process technology improvements. This department works closely with industrial associations and firms in Denmark to provide assistance in technology and product design that will aid Danish firms in developing new products and improving current ones.

One example of recent efforts to involve the private sector in state government is Oregon Economic Development Department's (EDD) *Key Industries Development Program*. Established in 1991, the Program was implemented in partnership with the business community and selected industry trade associations to initiate flexible manufacturing networks to help individual companies work together to find new markets. One of the key industries is forest products. The purpose of the initiative is to assist Oregon's Key Industries in becoming more competitive in the marketplace, to increase output and products shipped, and increase jobs and income for Oregonians.

The Key Industries Development Program has two resources available to those interested in forming a network: a \$10,000 matching challenge grant program that works as an incentive for businesses to initiate networks; and trained network brokers to assist businesses in network formation and technical assistance. Twenty pilot networks have been established and 37 network brokers trained. Three networks are associated with the forest products sector, two work with the furniture industry (furniture design and marketing), the other markets equipment to the wood products industry.

Oregon EDD also operates the *Regional Strategies Program*. This program funds targeted economic development strategies developed by multi-county teams of government and industry officials.

In Washington state, the *Governor's Timber Team* coordinates the state's response to industry problems. Established by Governor Booth Gardner in 1990, this team strives to assist timber enterprises at the local level and improve social services through such steps as extending unemployment insurance. They coordinate two groups that advise the Governor and the legislature on the state's strategy for assisting timber dependent communities, workers, and firms: the Governor's Inter-Agency Task Force and the Economic Recovery Coordination Board. The task force consists of managers of state programs serving timber dependent communities. Members of the coordination board represent a variety of groups such as the wood products industry, county government, the educational system, economic development councils, and labor.

## **State Programs**

Public sector initiated programs work with and help to promote the wood products industry and provide assistance and services to companies. They can serve a critical role in improving access to markets and capital, and in applying advanced technology. They can also be a source for funding and business assistance services.

One such program is the *Wisconsin Department of Natural Resources Forest Products Unit*. The goal of this agency is to promote the better use of Wisconsin's forest resource by strengthening its forest industry, maintaining or increasing existing jobs, and utilizing surplus forest resources. The Forest Products Unit works with all economic development groups and state and federal agencies. It provides the industry information on wood availability, promotes business development, helps to establish foreign markets, and provides marketing assistance.



The British Columbia Forest Service's *Woodlot License Program* is intended to improve management on small private forest lands and to improve productivity on both small public and private forest land parcels. This Program provides private woodlot owners with a conditional assignment of public forest land in exchange for an agreed management program for both the private and public lands.

The B.C. Forest Service also delivers a program designed to encourage small forest enterprise. The Program is intended to provide timber access to small scale operations, to promote the production of specialty and high value products, to generate employment, and to demonstrate and encourage sound integrated forest management. *The Small Business Forest Enterprise Program* is funded by the BC government.

The *Missouri Department of Conservation* works with the private industry and provides them with technical assistance, forest resource information through their Data Center, access to advanced technology, and education. The Department of Conservation has a close working relationship with other state agencies in Missouri including the Department of Agriculture, Department of Natural Resources, and Department of Economic Development. This agency provides technical assistance on a request basis to all sectors of the forest industry including rural areas dependent on the forest industry.

### **Federal Programs**

Federal programs that emphasize the wood products industry are primarily funded by the Forest Service in the US Department of Agriculture, and include educational, research, and technical assistance programs. The educational and research programs funded by the government include the USDA Cooperative Extension Service program. Other Forest Service programs include the Forest Products Lab in Madison, Wisconsin and the Forest Service Experiment Stations. Many of these projects provide research assistance and funding that may not otherwise be available without the involvement of the federal government.

One national effort, the *National Timber Bridge Initiative* was developed in response to a need to repair or replace deteriorating highway bridges, and to improve and revitalize rural economies. Through that investment initiated in 1989, the initiative improves rural transportation networks, expands the range of markets for wood products, and creates service industries for wood bridge construction. Many of these deteriorating bridges are on double lane, rural roads, and are suited for wood construction now that technological advances have taken timber bridge construction to a new level. Advances in timber bridge design, and treatment and preservation of wood have contributed to this opportunity.

Through demonstration projects, over 200 bridges have been constructed of wood, and they have proven to be a cost effective alternative to bridges constructed out of concrete and steel. Most of the research takes place at the *Forest Products Lab* in Madison, Wisconsin. Aspects of the research include design criteria, sources of hardwood structural lumber, construction methodologies, and monitoring the performance of demonstration projects. The Timber Bridge Information Resource Center provides access to information on emerging technologies, and other reports and publications. It also provides coordination of conferences, workshops, and seminars. Economic diversity and community stability is enhanced through emphasizing under-utilized wood in a new product, creating local jobs and long-term employment prospects, and creating additional service industries.

The timber programs of the *USDA Extension Services* are aimed primarily at owners and users of private lands, and are coordinated with many groups interested in managing renewable natural resources. The Extension Service's educational programs on the renewable natural resources challenges reach landowners, resource-based companies, communities, the public, and natural resource professionals. Extension efforts include the development of a computerized hardwood veneer quality control program in North Carolina, environmental education through public broadcasting in Maine, and continuing education programs in Minnesota, New Hampshire, and New York.

*The Small-Scale Forestry Program* under the Canada-British Columbia Partnership Agreement on Forest Resource Development (FRDA II) is designed to provide professional forestry advice and funding to small-scale woodland owners. This support is provided to improve the planning and sound management on these private woodlands. The Program is delivered by the Canadian Forest Service.

One response to the transition underway in the forest products industry has been the formation of the *Western Wood Products Forum* in British Columbia. The WWPF is a joint venture of some of the major forest companies in BC and the IWA-Canada. The mandate is to develop solutions to problems and issues affecting employment and visibility in the industry (including silviculture, logging, and both primary and secondary manufacturing).

### **Private Sector Programs**

Private sector efforts to meet the needs of the wood products industry include consulting firms, trade associations, networks or cooperatives of wood products firms, and private non-profit organizations that are industry led.

An example of a cooperative of secondary wood product manufacturers is the *Specialty Wood Products Cooperative of Southwest Oregon*. This recently formed, multi-county marketing cooperative resulted from a series of meetings beginning in late 1991 that brought a broad-based group of people together to advance the prospects of the hardwood industry. Funding is from the Wood Products Credit Union, the Umpqua Community Development Corporation, and the Oregon state legislature.

The *Puget Sound Cooperative Federation* in Seattle is an association of consumers and worker owned businesses that helps foster the success of cooperative enterprises within Washington, Oregon, and Alaska. The *Federation* provides business assistance in many areas including: organizational development; short and long range planning; market analysis; business plan development; financial training; problem solving methods; decision-making models; board training; and management system design.

*Overseas Strategic Services (OSS)* is located in Oregon, and is a private international management firm that offers timber processors and other U.S. firms direct hands-on assistance in entering the European market. Marketing services to small and medium sized firms include: identification and evaluation of specialized distributors; competitor and market intelligence; establishment and staffing of local offices; and introductions to important professional service providers. This consulting service also seeks establishment of strategic alliances between U.S. and European firms.

Flexible manufacturing networks (FMN) are groups of small manufacturers that come together to jointly produce items for custom or niche markets that none could produce

individually. This model is an adaptation of economic structures which have led to significant economic growth in northern Italy. One such network is *WoodNet* in Port Angeles, Washington. WoodNet serves about 300 very diverse producers in four counties on the Olympic Peninsula. This non-profit organization provides a variety of services to its members including marketing assistance and organization of working sessions for members with similar processes and markets. The sub-groups include: arts & crafts; construction products; millwork and mouldings; marine products; and home furnishings and fixtures. WoodNet has participated in various local, state, and international trade shows to promote products, and they have produced an Olympic Peninsula consumer products wholesale catalog. Additional activities include publishing a newsletter informing members and helping them with demonstration projects.

In British Columbia private companies in secondary manufacturing of wood products have formed associations to promote common interests. These associations include the *Independent Lumber Remanufacturers' Association* and the *Interior Value Added Wood Association*. Funding is raised from member companies.

*Snickericentral*, in Skellefteå, Sweden (literally translates as Joinery Center) is a non-profit corporation formed by 17 companies in 1959. This group of competitive and complementary firms prefer to concentrate on the manufacturing process rather than on marketing, and decided to form a subsidiary to do all of their marketing. An additional motivation was pooling resources to meet the high costs of marketing in Stockholm, 850 kilometers to the south, or points further away. All member firms are located near Skellefteå and Umeå in northern Sweden. The owner companies come out of a long tradition of joinery. At present, the group manufactures doors, windows, institutional furniture, floors, and stairs. They have a high state of technology, including Computer Aided Design (CAD) systems. Earlier in their history they did a lot of residential construction work, but now specialize in their present markets plus "combination products" which use the capabilities of more than one of the member companies.

## Regional Programs

Several organizations in the East and Midwest operate in multi-state areas. They work closely with and coordinate programs within their region. These include the *Appalachian Regional Commission* (ARC) which covers a 13 state area, and other smaller organizations such as the *Northeastern Forest Alliance* which covers a four state area, and *Northeast Wood Products Exhibition* (NEWPEX) which covers the Northeastern states. Regional programs seek to avoid duplication on issues confronted by the states. By working together with each other and state organizations, pooling efforts, and sharing expertise and knowledge of the industry, they work more effectively.

The *Northeastern Forest Alliance* (NEFA) is a private non-profit organization formed in 1986 through a Memorandum of Understanding between the four states of Maine, New Hampshire, Vermont, and New York. The staff and structure of NEFA resulted from the efforts of the four state foresters working together to form this organization. The foresters recognized early on that the four states could do more as a group to address their common forest and wood product issues, opportunities, and goals.

The regional pact represents an innovative attempt to create an awareness of the Northeast forest's resources and to market them by expanding export opportunities. Other NEFA goals are to focus attention on natural resource issues and opportunities that

transcend political boundaries, support a regional approach to forest planning, and share technical expertise in order to streamline problem solving and delivery of services.

The state foresters from each of the four states make up the board and the natural resource departments provide staff for the organization. The staff is called the "Tech-Team" of NEFA. Although the emphasis at NEFA is in the area of utilization and marketing, the foresters that make up the Tech-Team specialize in areas such as forest management, forest resource planning, and forest product utilization. The Tech-Team meets about five times a year, and the projects and agenda for this organization are determined with input from all members. NEFA also represents the four state region in domestic and international trade shows. Through ongoing communication, and participation in local forums, NEFA has brought together a wide variety of interests and organized groups. NEFA works directly with state agencies within their region, as well as with other federal agencies, and other regional entities. For example NEFA and CONEG (Coalition of Northeastern Governors) co-sponsored a wood pellet conference in June 1993.

The *Appalachian Regional Commission* (ARC) is a federally funded commission that works directly with the Governors' offices in 13 states. ARC has a total budget of about \$197 million that is allocated to highway and community development programs. The majority of the funding goes to the highway program. Within the community development program are initiatives that emphasize the wood products industry. About \$26 million in funds are allocated through a specific formula to the 13 states, and are matched by the states.

ARC has an indirect relationship with the private sector when it comes to wood products related projects. Funding decisions are made by each state. Some recent individual state projects related to the wood products industry have involved such issues as overcoming capital constraints, increasing technology transfer, and accessing export markets for small producers.

## Services Offered to Add Value

For firms to produce and manufacture high value wood products more efficiently, have a greater production capacity, employ a highly skilled workforce, and sell products in foreign and domestic markets, they must have access to information and specialized assistance. Meeting the diverse needs of an industry is one challenge in program design. The *Virginia Center for Innovative Technology* at Wytheville Community College found that a needs assessment survey is a good place to start. With this knowledge about the needs of the industry, they not only designed a program to meet those needs, but the program also built a strong, long-term, relationship with primary wood products manufacturers one on one.

## Training and Education

Training programs and services to increase the prospects of value added enterprises range from formal college courses to informal training seminars. A variety of programs are reaching the diverse needs of the industry including seminars to help businesses restructure, technical seminars on the latest equipment, flexible manufacturing network broker training programs, entrepreneurial training, and college courses on furniture production.

The public education system in British Columbia offers a variety of degrees, diplomas, certificates, apprenticeship preparation and individual courses related to forestry production, practices, management and marketing. These include a number of courses at technical colleges dealing to specific aspects of secondary manufacturing in wood products.

The *BC Wood Specialty Group*, in cooperation with the regional research and educational agencies designs and delivers seminars and workshops to upgrade the technical, business and marketing skills of member companies. These have included management skills, lumber grading, kiln drying, moulding and fingerjointing machinery courses.

At *Catawba Valley Community College* in Hickory, North Carolina, students can choose between two degree programs: furniture production management, and furniture design and development. An apprenticeship-type program is offered where firms sponsor students, and students work at the firm and take classes at the college. Students receive practical and applied experience through their work and classes. Through the apprenticeship-type program students acquire basic skills (English, math, social sciences, electives) and job specific skills (product development, drafting, production and machinery, computers) through their classes, and this is reinforced by practical hands-on experience at wood products manufacturing firms.

### **Marketing and Export Assistance**

Marketing assistance and market research programs help many firms to access markets, and identify value added products. They can link processors with products and markets, and expand their production options.

The *BC Wood Specialties Group* completes an initial identification of export market opportunities for secondary wood products and works with member companies to design market assessment and development missions. These missions are typically delivered in cooperation with government officers stationed in the target market. The BCWSDG also produces and distributes informational material on secondary wood products available from member companies.

The *BC Wood Specialties Group* completes an initial identification of export market opportunities for secondary wood products and works with member companies to design market assessment and development missions. These missions are typically delivered in cooperation with government officers stationed in the target market. The BCWSDG also produces and distributes informational material on secondary wood products available from member companies.

The *Economic Development Association of Skagit County* in Mt. Vernon, Washington offers services in the areas of market development, business and technical training, and flexible manufacturing network formation. This group sponsors business and technical assistance workshops for new and established wood products manufacturers. They match manufacturers with new markets, and facilitate networking among local manufacturers to locate timber resources and secure financing.

In order to effectively market its services to Danish industry, the *Danish Technological Institute (DTI)* relies on direct marketing efforts of its professional staff, who function much like the staff of major U.S. technically oriented contract research institutions such as the Battelle Memorial Institute or SRI International. In addition, DTI works closely

with Technology Information Centers (TICs) located in each of Denmark's 14 counties. The mission of each TIC is to get to know each of the manufacturing firms in its county through personal visits made by staff who are experienced industrial consultants. TIC staff provide several days of free consulting advice to firms on how to improve their process technology. If additional assistance is required, the TIC staff recommend a consultant at DTI or elsewhere who can provide the service.

Assistance in accessing foreign markets is a service that is valuable to small and medium sized firms that may not have the expertise, time, or funds to develop such opportunities themselves. The *Export Assistance Center (EAC)* in Washington State is a private non-profit organization that provides assistance in obtaining export financing for small and mid-size businesses. EAC makes available financial expertise, assistance, and counseling to all small and mid-size companies that don't have the capacity to secure sound export financing.

Through economic development organizations in Washington, the EAC delivers export transaction training and export finance counseling. The Pacific Northwest Export Assistance Project of the EAC finds international markets, develops complete marketing plans, and guides companies through all facets of international trade to succeed in closing deals. This project works with small to medium sized manufacturers who could potentially increase exports or who find it difficult to enter the exporting arena. The project provides them with the step-by-step guidance they need to transform their firms to successful international exporters.

### **Flexible Manufacturing Networks**

Small manufacturers often need to pool resources and modernize if they are to compete in today's market. A flexible network is a group of three or more firms which have banded together to carry out some new business activity that the members of the network could not pursue independently. The network can involve similar firms which band together to share the costs of developing a new product or market, or dissimilar but complementary firms which collectively approach the capability of a vertically integrated large firm. Typically the nature of the cooperation within the network is carefully defined so as to preserve each firm's independence and original lines of business. The duration of the collaboration may be very short and limited to a particular project for a single customer, or a very long term collaborative effort. A flexible production network is not just a joint venture among several firms. The nature of the collaboration tends to be deeper in a true network, and one form of collaborative endeavor tends to lead to others. This constantly shifting, flexible organization of the production system is typical of flexible manufacturing networks in Italy and elsewhere.

A recent report by the *British Columbia Trade Development Corporation (B.C. Trade)* highlights networks and network formation. This report describes networks as a system of cooperation among competing firms to market services, particularly in international markets. This report also provides an historical perspective on networks, from its roots in Emilia-Romagna, a province in central northeast Italy, and the development of networks in other locations. The flexible network model has been used in many areas, and case studies on six network programs are presented in this report. In addition, efforts to establish networks in British Columbia are described. Nine networks are in various stages of formation in British Columbia. One of the networks that involve the wood products industry includes a consortium of three British Columbia firms: two equipment

manufacturers and one design and construction firm. This group of manufacturers markets turn-key sawmills to Russia. Another newly formed network is an association of 45 firms (Western Canadian Wood Machinery and Services Export Association) committed to jointly serve international markets. A directory and profile of the association's members has been completed. The third network is a group of twelve secondary wood products manufacturers from B.C. working together to penetrate the Japanese market. Both the Japanese market and the machinery and services export initiatives were developed in cooperation with the Canadian Forest Service

Several programs help spark the creation of networks. As noted earlier, the *Key Industries Development Program* of the Oregon EDD has helped form 20 networks and trained 37 network brokers. Another example of a group that helps firms organize into networks is the *Appalachian Center for Economic Networks (ACENET)*, a private non-profit corporation that facilitates the flexible manufacturing network formation process among small manufacturing firms in eleven counties in southeastern Ohio. They work toward creating and retaining jobs through developing direct links between the economic development community and firms. To date this group has played a key role in designing and carrying out joint projects that support FMN production in four areas: training, telecommunications, modernization, and access to capital.

The *Center for Economic Development* at Eastern Kentucky University has also been involved in flexible manufacturing network formation. The Center helped create a group of 15-20 firms in central Kentucky called the Kentucky Wood Manufacturers Network which produces architectural millwork, hardwood dimension, and furniture.

### Technological Assistance

Making the latest technology available to firms so they can improve their production process and production capacity, fully utilize wood fiber and produce less waste, and access research on products and production processes is critical to wood product firms.

One example of a technology assistance program is the *Center for Economic Development* at Eastern Kentucky University. The Center was set up in 1989 as a resource for the secondary wood products industry and to assist in the growth and expansion of the industry. The Center offers technical assistance in the areas of product development, plant lay out, preparation of business plans, and assistance on other technical problems.

Another example that offers technical assistance as part of a larger program is the *Forest Products Division* at Washington State's Department of Trade and Economic Development (DTED). Initiated in 1989, this Division manages a program that promotes value added manufacturing in Washington and provides technical and marketing assistance, and conducts feasibility studies for small and medium sized forest product companies. The division provides technical aid to small and medium-sized mills which must modernize in order to survive.

*Forintek Canada Corporation*, in cooperation with private companies and groups of companies, provides technical training seminars. Forintek encourages technological implementation of concepts, processes, products and education programs. Forintek also provides technical assessment reports on emerging manufacturing technologies.

The *Tennessee Valley Authority's (TVA)* Forest Products program and the Manufacturing Development Program provide technical assistance to firms within a 201 county/

seven state region. The manufacturing development program serves all industries including the forest and wood products industry. The forest products program delivers technical assistance to the primary and secondary wood products industry through consulting and training seminars. When appropriate expertise is not available internally, TVA links the firms with other providers. TVA has technical assistance available in such areas as industrial engineering, marketing research, and environmental engineering. Some specific areas of technical assistance are cost reduction programs for dry kilns, sawmill improvement programs, and statistical process control programs.

## Research

Much of the research underway focuses on product potential. One example of current research, the agroforestry initiative at *Washington State University*, explores the economic options of agroforestry management in the Pacific Northwest. WSU researchers are investigating the potential for cultivation of agricultural and alternative forest products such as floral greens, wild mushrooms, drought and disease tolerance native plants for landscaping, naturally occurring medicinal plants, and Western Washington's native ginseng, Devils Club. This research, conducted for the Columbia-Pacific Resource Conservation and Development Council concluded that agroforestry holds great promise for a broad-based economic development effort in southwest Washington.

The *University of Idaho* has produced a directory of Idaho's wood products manufacturers, and other information on Idaho's forest products industry. Research efforts have included identifying new markets for wood products, conducting business feasibility studies, and carrying out mill studies that look to adding value to the processing of primary wood products.

The *Center for International Trade in Forest Products (CINTRAFOR)* at the University of Washington addresses opportunities and problems related to the international trade of wood and fiber products. The Center emphasizes forest economics and policy analysis, trade and environment, technology development, marketing, and value-added wood products. CINTRAFOR's research program is a comprehensive and integrated set of studies addressing key problems and opportunities inherent in the international trade of forest products. To meet the needs of overseas and domestic buyers in identifying producers of specific wood products, CINTRAFOR recently published a directory of value added wood products manufacturers in Washington state. This will serve as a buyers guide to manufacturers and suppliers of Washington State-made value added wood products.

Extensive silvicultural research is also underway. High quality wood can be achieved through silvicultural techniques. The *U.S. Forest Service Pacific Northwest Research Station* has been conducting research and has produced several publications on pruning, including users guides for pruning Douglas Fir and Ponderosa Pine. Silvicultural research at the University of Washington has been related to the potential for production of higher valued wood, as well as new forest management jobs, and greater biological diversity through pruning and thinning .

## Capital Formation

Some programs extend grants and loans to enterprises as part of the services they offer. Some of the federally funded programs such as the Appalachian Regional Commission,



and the National Timber Bridge Initiative offer grants for specific projects on a competitive basis. Others offer loans to communities or groups of firms. One example is the *Linn-Benton Regional Strategy* in Oregon. Administered by Oregon Economic Development Department through its Regional Strategies Unit, the Strategy provides business and technical assistance, financial support, and a business incubator facility for new and existing businesses that create a new crop, product, process or service. This a two-county partnership working to help businesses plan for the future by encouraging the implementation of new ideas and technology. High technology, agriculture, and forestry are the key industries selected for emphasis. Program managers hope that the use of new ideas and technology will diversify local industry and add value through new processing opportunities. Examples of the services offered are:

- *The Businesses Service Fund* helps local businesses, farmers, and foresters obtain professional services which support new ideas and technology.
- *The Applied Research Fund* links local businesses with research facilities to conduct applied research projects with commercial application.
- *The Investment Incentives Fund* helps local small businesses attract capital to adopt new technology. Grant money is provided for business start-up. There is a job creation requirement of one job for every \$10,000 grant. All funds must be matched by private industry.
- *The Business Enterprise Center* provides assembly and office space to young companies.
- *The Advanced Science and Technology Institute* at OSU provides technical assistance and support for applied research.
- *A Technology Outreach Agent* promotes new ideas in agriculture, forestry, and high technology to businesses in Linn and Benton counties.
- The *Public Works Department* of Washington State's Department of Community Development offers loans to communities in designated timber-impacted areas for new or expanded infrastructure projects that support industry or tourism. They coordinate their efforts with the Timber Community Economic Revitalization Board. This program provides for increased, diversified economic opportunities for residents of timber dependent areas of Washington State.
- The *Forest Products Division* of Washington State's Department of Trade and Economic Development has introduced a new Revolving Loan Fund Program designed to finance projects that introduce and implement value added production processes. Funding for this initiative came from the US Forest Service and allows the program to build on existing projects. This assistance is available to eligible and qualified forest products firms in the state of Washington. The program hopes to attract small and medium sized forest product manufacturing firms that are interested in creating a project that will contribute to the diversification of the forest products industry.

## Lessons Learned

Several program managers interviewed for *Making Wood Work* outlined lessons they learned as they progressed through the program design and implementation process. Many themes recur. Government's commitment to value added strategies must be ongoing, and must include time and technical expertise as well as financial resources. Government must develop clear measurable objectives, evaluate programs in progress,

and retain the flexibility to modify them where warranted. It must forge working relationships with industry leaders and enterprise managers to make certain that services meet the sector's needs.

### **Get the Commitment of Public Leaders**

The support and commitment from government must go beyond funding and include long-term investment of time and expertise. The strength of commitment can bring about increased participation from both other agencies of government and from industry, can speed program start-up, and can facilitate greater collaboration. For instance, the *Northeast Forestry Alliance* (NEFA) has seen its impact grow as the longer-term commitment is demonstrated. Often such support is even more likely to materialize if a high level official commissions or sponsors a group, as has been found with Washington's Governor's Council on Forestry.

### **Coordinate and Collaborate**

Effective value added initiatives found coordination with other service providers to be essential. Collaboration can avoid wasteful duplication and help fill service gaps. Effective program managers are intent upon building partnerships, coordinating programs, improving communication and cooperation among and between programs, and exchanging information. Such exchanges can improve existing programs by helping them to learn from demonstration projects and other models. Regional organizations have found success in forming working groups comprised of representatives from several states, because it encourages joint problem solving.

Building public-private partnerships helps insure that value added programs meet the needs of the industry they are attempting to serve, and involves the industry in program design and implementation. According to the *Evergreen Partnership*, success is the combined effort of industry, government and academia working together to bring about market understanding, to share information and processes, and locate potential buyers for the sale of value-added products. The Evergreen Partnership is a focal point for marketing information and activity and is a central source for potential customers to make inquiries concerning resources, services, and markets.

The *Regional Strategies Program* in Oregon is based upon the understanding that each region has its own approach to solving economic problems and promoting economic development. However, the most successful strategies are those whose participants lead the region in partnership with the state and with other entities. Coordinating regional efforts, maximizing resources, and increasing private industry involvement are critical.

The *Wisconsin Department of Natural Resources Forest Products Unit* has worked with Forward Wisconsin on such projects as business development and representation of Wisconsin companies at trade shows and exhibitions. For the past ten years, the Forest Products Unit has worked with industry to establish foreign markets for Wisconsin. The emphasis is on exporting value added forest products such as hardwood dimension, veneer, and flooring.

Promoting cooperation and communication within the industry helps firms identify common problems and opportunities that companies can address together. The *Oregon Wood Products Competitiveness Corporation* has found that direct contact with the

industry through the formation of regional chapters is very effective in program development. Bringing the industry together, and involving its members in creating programs has helped to increase OWPCC's impact on a fragmented industry.

### **Target Sectors and Services**

Targeting specific sectors and services enables programs to develop the expertise needed to help wood products firms improve their competitiveness.

The *New Mexico Wood Products Association* has organized the small, specialized wood products manufacturers in the state and provides assistance in making them more competitive. The association was formed by the industry and industry observers independent of state efforts. The organization has targeted assistance in marketing as the area which it will develop special expertise. The catalog they assembled, *New Mexico Home Catalog*, features wood products manufacturing firms that produce a variety of household furnishings including furniture and other wood products. Firms pay a fee to advertise and have photos of their wares featured in this catalog.

In the east, the *Appalachian Export Center for Hardwoods (APEX)* has also designed a program that targets the exporting potential of companies. This program was created through the efforts of West Virginia University's College of Agriculture & Forestry and the federal government. It emphasizes the importance of manufacturing goods out of the region's abundant natural resources rather than exporting those resources along with jobs, income, and profit.

The *Moorehead State University* technology transfer and technical assistance program found that emphasizing the existing industry has the greatest potential to produce positive results. They also recognize the importance of maintaining a training program, and coordinating with other training programs to eliminate duplication and join forces on training activities.

*Catawba Valley Community College*, in Hickory, North Carolina is an example of a training and education program targeted to the local needs of the wood products industry. It was established over 30 years ago with a combination of public and private funds. One of the strong points of this program is the level of coordination that has taken place between many public and private organizations. The college provides training for students wishing to enter into the field of wood products manufacturing, and thereby assures well educated and well trained employees to the industry. Apprenticeship models are heavily utilized.

The *Wood Products Extension Group* at North Carolina State University has found that by working directly with the industry through their technical assistance program, they have brought their expertise to the industry, achieved additional familiarity of the subject, and gained knowledge of the industry. This group is in a unique position of having credibility with the industry, and also having a strong link so they can identify the industry's needs. While rural development is an abstract concept, this extension work is much more tangible: when firms become a stronger force and grow, more and better paying jobs follow, creating wealth and income in the community.

## Organize Regionally

Organizing programs on a regional (or multi-state) basis can enable them to pool efforts and resources. Designing programs that reach across political boundaries to share expertise and knowledge of the industry streamlines problem solving and delivery of services, thus generating gains in efficiency in program efforts and results. The *Northwest Forestry Alliance* is one such regional program. As described earlier, NEFA resulted from the efforts and insight of the state foresters in the four states who recognized that they could do more as a group to address common forest and wood product opportunities.

The *Massachusetts Department of Environmental Management* has learned that the greatest benefit of regional initiatives is to get together with others that are dealing with some of the same issues, and identifying ways to tackle problems collectively. Regional efforts also enable easy incorporation of the private sector into the process. Placing a greater emphasis on including private industry in the process has become a priority.

## Be Flexible

Making programs flexible, so they can adapt to changes in the wood products industry is also an important feature of value added wood products initiatives. Keeping the door open to new opportunities and listening to and learning from the industry keeps programs fresh and responsive to industry needs.

Assessing programs and their effectiveness allows for better design and focus of projects. Evaluations can help to assess if programs are reaching their goals. The *Appalachian Export Center for Hardwoods* (APEX) has learned the importance of follow-up communication with the firms it works with. Program managers have found that interviews regarding program impact can generate a great deal of valuable information, including individual company successes. This requires a constant and consistent effort to stay on top of current research, current market trends, current changes in the industry, and pass this valuable information and research results to the industry in a timely fashion.

Evaluations can help programs increase their strengths and reduce their weaknesses. In one such assessment, *Oregon Marketplace* found that only a portion of the potential market was being served. The evaluation identified the best clients as small owner-managed businesses with limited resources for marketing. Program adjustments were made accordingly.

Adjustments must be made and flexibility developed even when programs become very successful. *North Carolina State University* (NCSU) has received so many requests for assistance that they now divide their time between outside requests (nationally and internationally), and their in-state extension work. The program is seeking to reach more firms than would otherwise be possible by working with firms collectively through seminars and group meetings.

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## **Appendix I—East Coast**

### **Appalachian Export Center For Hardwoods (APEX), West Virginia**

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The Appalachian Export Center For Hardwoods (APEX) was formed in 1989 to emphasize the importance of manufacturing goods rather than exporting resources, jobs, income, and profit. APEX seeks to increase the export of value added hardwood products from the Appalachian region. It works closely with the Colleges of Agriculture, Forestry, Business & Economics, and the Cooperative Extension System at West Virginia University. APEX links producers of timber and forest products in the Appalachian region (which includes the states of Alabama, Georgia, Kentucky, Maryland, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia) with the international trade community.

APEX has developed programs in research and education. APEX's research involves gathering and analyzing information to improve the competitiveness of wood products. The education program targets students and promotes understanding of international issues, business practices, and resources. APEX also publishes a newsletter, a statistical quarterly, and holds workshop series. APEX works hard to meet the needs of a diverse industry composed of firms with different levels of expertise and tailors its services to meet these differing needs accordingly.

APEX is a collaborative effort between the public and private sectors and coordinates efforts with other private and public organizations. It coordinated a trade mission for dimension manufacturers to the UK, Belgium, and Germany, and has outreach programs including APEX's publications, statistical quarterly, and research reports.

### **Appalachian Regional Commission, Washington D.C.**

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The Appalachian Regional Commission (ARC) is a federal program composed of the 13 states of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia.

Congress appropriates about \$197 million in funds to ARC which it allocates to two programs, a highway program and a community development program. The highway program receives the majority of the funding. The community development program includes initiatives which emphasize the wood products industry. These range from research and conferences to funding projects for a variety of projects including technical assistance, research, training, export marketing, and demonstration projects. About \$26 million of the funds are allocated through a specific formula to the individual states for this program and are matched by each state. Funding for specific programs, however, is the decision of each state. Requests for funding for individual projects are submitted to the Governor's office and the Appalachian Development Office in the respective states. Occasionally, ARC issues RFP's for specific initiatives, such as tourism. However, projects and programs are more often funded through the Governors' offices. A major portion of the funds provide infrastructure, health services, and education. However, some individual state projects related to the wood products industry have involved issues such as capital constraints, technology transfer, and accessing export markets for small producers.

ARC has an indirect relationship with the wood products sector. Since ARC is a federally funded commission that works directly with the Governors' offices in 13 states, there is greater coordination with other public agencies than with the private sector. ARC recognizes the need for greater coordination with individual wood products related projects.

ARC organized a manufacturing competitiveness conference in November 1992 in Baltimore. The conference resulted in ARC considering ways to access private sector involvement, and identifying major clusters of industries to target.

**Catawba Valley Community College,  
Furniture Production Management Program,  
Furniture Design & Development Program,  
North Carolina**

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The Furniture Production Management Program and the Furniture Design and Development Program were established over 30 years ago with a combination of public and private funds at the Catawba Valley Community College to assist the secondary wood products industry. Currently, funding comes from the state, furniture manufacturers, and some county contributions. Training furniture manufacturing employees has been identified as necessary through every phase of the production process. Industry input is included in the design of the education and training program through an advisory committee composed of furniture industry manufacturers.

This partnership between industry and education has resulted in an apprenticeship-type educational program where the students receive practical and applied experience through

working for firms while taking classes. This program also offers on-site training at larger firms. To meet the needs of smaller firms, the program offers Fixed Industry Training, a state funded program that conducts training at the firm and night classes on campus.

One of the strong points of the educational program is the level of coordination between many public and private organizations. The initial coordination between public and private entities which started this program continues between the school and different levels of government.

## **Center for Economic Development, Kentucky**

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The Center for Economic Development, a combined effort of Eastern Kentucky University and the Economic Development Administration, was created in 1989 to emphasize the development of the secondary wood products industry in Kentucky. It is a resource for the secondary wood products industry and offers technical assistance in the areas of product development, plant lay out, preparation of business plans, and other technical problems as well as producing a directory of manufacturers. The Center for Economic Development has also been involved in flexible manufacturing network formation. The Kentucky Wood Manufacturers Network, composed of 15 to 20 firms in central Kentucky, produces architectural millwork, hardwood dimension, and furniture. The secondary manufacturing industry is mostly made up of small firms and is less developed than the primary industry in the state. Since almost 70 percent of Kentucky's wood resources leave the state as logs or green lumber, the center recently began exploring strategies to develop the secondary manufacturing industry, utilize nearby resources, produce products from those resources, and increase employment.

The center maintains a close relationship with wood products firms and organizations such as the state cabinet for economic development, regional economic development centers, and community organizations.



**Coalition of Northeastern Governors (CONEG)  
Policy Research Center,  
Northeast Regional Biomass Energy Program,  
Washington D.C.**

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The Coalition of Northeastern Governors (CONEG) Regional Biomass Energy Program, a combined federal/state program formed through a grant from the Biomass Energy Technology Division of the U.S. Department of Energy in 1983, encourages regionally-specific biofuel energy projects. The program maintains close relationships with the private sector, government, regional and national organizations, industry and trade organizations, and universities. An ongoing effort exists to provide technical assistance to and cosponsor projects with state energy, forestry, and environmental offices to strengthen and integrate programs.

**The Irland Group,  
Maine**

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The Irland Group is a private firm that offers consulting services and analysis of costs, wood products marketing, program evaluation, training, and timber supply.

The Irland Group offers a wide variety of consulting services. It conducts cost analysis, investment analysis, and other evaluation projections on timber supply. In addition, it provides market opportunities and mill and product feasibility studies in the wood products sector. Other policy instruments of The Irland Group include program and policy evaluation, economic development studies, and economic impact analysis. The firm also provides training on industry conditions and trends, and marketing techniques and skills. The group provides these services nationally, as well as in various provinces in Canada.

In The Irland Group's article, "State Roles in Economic Development: The Case of Forest-Based Development in Maine," and "Value Added in the Maine Economy" summary and technical reports, several other programs are cited as being involved with value added strategies. These include the following:

- The Eastern Maine Development Corporation - a multi-county organization.

- Maine World Trade Association - an organization partially funded by the state which serves business needs in the area to promote trade through putting on workshops, seminars, and overseas trade shows. (This organization is described separately).
- Maine Capital Corporation - created in 1981, a non-profit venture fund based in Portland designed to provide risk capital to Maine firms. This firm has grown and has created a new vehicle, the North Atlantic Capital Corporation to serve Northern New England needs.
- Community Development Block Grant Program - a program administered by the Maine Department of Economic and Community Development with federal funding. It funds local public works and housing projects, as well as loan to businesses that are administered through local communities or counties.
- The Maine Science and Technology commission - one of the clients of The Irland Group which has supported a number of specialized centers in efforts to bring technology more swiftly into application in a number of sectors.
- Maine Development Foundation - involved in various studies.

## **Maine World Trade Association,** Maine

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The Maine World Trade Association (MWTA) is a private, non-profit organization dedicated to providing quality technical and educational services to Maine businesses seeking to compete worldwide. This organization is funded both publicly, from the state of Maine, and from private-sector based resources. Membership for the Maine World Trade Association (MWTA) includes firms of all sizes from all parts of Maine. The State of Maine takes a private-sector approach to the delivery of international trade development services to Maine companies by providing funding to the Maine World Trade Association (MWTA).

The scope of this organizations international activity and expertise is wide ranging, covering exporting, importing, joint ventures, and licensing agreements. In February of 1993, the MWTA held a workshop on wood product exporting. In addition, the Maine World Trade Association publishes a World Trade Wise newsletter and an International Commerce Training Guide.

**Massachusetts Department of Environmental Management,  
Massachusetts**

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Boston, MA 02202  
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The Massachusetts Department of Environmental Management Division of Forests and Parks currently has a cogeneration study and a timber bridge program in progress. The cogeneration study explores the feasibility of producing energy from wood fiber and determines whether a market exists. The timber bridge program, part of the larger federal program, explores the use of native materials in the construction of timber bridges.

The University of Massachusetts also works with the wood products industry through its Cooperative Extension Service. It holds workshops and provides technical assistance for the wood products industry. Although the secondary wood products industry is well developed in the state, technical assistance in the past has been mostly directed toward the primary wood products industry.

**Morehead State University,  
Office of Wood Technology,  
Kentucky**

Contact: Robert Bauer  
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Morehead, KY 40351  
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Fax: (606) 783-2678

Morehead State University Office of Wood Technology has developed a technology transfer project for the wood products industry. An emphasis to develop the secondary wood products industry was only a portion of the original proposal. Over time, the emphasis of the project has changed to focus more on the secondary wood products manufacturing industry, especially since many of the larger primary wood products manufacturers were moving into remanufacturing and secondary manufacturing. The Office of Wood Technology emphasizes expanding existing firms rather than recruiting or starting new firms since most of the growth has occurred in the existing industry. Economic development organizations, such as the East Kentucky Corporation, focus on bringing in secondary manufacturers as a strategy to expand the industry. The Office of Wood Technology also acts as a clearinghouse of information by helping the industry make contacts, publishing a newsletter, producing a marketing brochure, and coordinating and organizing training sessions with the Kentucky Forest Industries Association.

The Office of Wood Technology provides technical assistance to the forest products industry in matters relating to problem solving, marketing, financing, equipment selection, resource availability, and wood industry development. It also coordinates efforts at all levels of government.

**New England Forest Consortium,  
Rhode Island**

Contact: Ellen Grady  
Address: P.O. Box 760  
Chepacht, RI 02814  
Phone: 1-800-772-8733  
Fax: (203) 455-9107

The New England Forest Consortium is a non-profit organization with both private and public sector representation on its Board of Directors which works cooperatively with Connecticut, Massachusetts, and Rhode Island to promote natural resource issues that reduce forest fragmentation. This organization also participates in the Forest Stewardship Program, which is part of the Department of Agriculture and provides funding for trail development. About 10 percent of the consortium's time is directed toward the forest products industry and 90 percent is directed toward public relations to preserve and manage forest lands.

**North Carolina State University,  
College of Forestry,  
Wood Products Extension Group,  
North Carolina**

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Steve Hanover  
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Raleigh, NC 27695  
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(919) 515-5580

The Wood Products Extension Group, a university-based program at North Carolina State University College of Forestry, is committed to working with the primary and secondary wood products industries. The program's main objective is to maintain and improve the secondary/value added wood products industry since the wood products industry in North Carolina is mostly furniture.

It publishes research reports, participates in extension work with firms, identifies needs within the industry, and creates seminars to meet these needs. It also provides technical assistance to individual firms.

## Northeastern Forest Alliance (NEFA), New York

Contact: Jim Burtis  
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Fax: (518) 327-3030

The Northeastern Forest Alliance (NEFA) is a non-profit organization which promotes the Northeast forest and its related products on a regional basis to national and international markets. The regional pact represents an innovative attempt to create an awareness of the Northeast forest's resources and market them by expanding export opportunities. NEFA focuses attention on natural resource issues and opportunities that transcend political boundaries, supports a regional approach to forest planning, and shares technical expertise in order to streamline problem solving and delivery services.

Marketing strategies NEFA uses include: Ongoing outreach to raise the public's awareness of forestry related issues; participation in local economic development forums; wood marketing; product development; a regional economic development campaign; and developing strategic alliances with economic development agencies and forest resource agencies.

NEFA is the result of efforts from the state foresters from each of the four states working together to form this organization. Each state has one forester who is part of the "Tech Team" and provides staff for NEFA. Although the emphasis of NEFA is in the area of utilization and marketing, the foresters that make up the Tech-Team are from areas such as forest management, forest resource planning, and forest product utilization. The Tech-Team members do not work full time for NEFA, but integrate NEFA responsibilities into their full time positions with the state. While the projects and agenda for NEFA are determined with input from all members, the final decision is made by the "Tech Team."

NEFA represents the four state region in domestic and international trade shows, taking trade leads back to the industry. NEFA exhibits what it calls a "trade show kit," which consists of samples of wood and products, and display brochures. It is currently working on a diskette directory of primary and secondary wood products manufacturers to take to trade shows. NEFA also coordinates efforts with the Northeastern Wood Products Exhibition where it has conducted seminars.

NEFA maintains a close relationship between the "Tech-Team" and private sector. NEFA has also worked with the Northern Forest Lands Council, and the American Hardwood Export Council. Through ongoing communication and participation in local forums, NEFA has brought together a wide variety of interests and organized groups. NEFA works directly with state agencies within its region, as well as other federal agencies and other regional entities. For example, NEFA and CONEG (Coalition of Northeastern Governors) co-sponsored a wood pellet conference in June 1993.

NEFA represents an innovative attempt to create awareness of the Northeast's forest resources and to market it by expanding export opportunities. It also seeks to focus attention on natural resource issues and opportunities that transcend political boundaries, supports a regional approach to forest planning, and shares technical expertise such as is

described in *'Success Stories' in Wood-Products Manufacturing and Forest-Resource-Based Economic Development, 1989.*

## **Pennsylvania Hardwood Development Council, Pennsylvania**

Contact: Ronald C. Anderson  
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The Pennsylvania Hardwood Development Council was created through legislation passed by the General Assembly in 1988. This legislation called for a 21-member council to develop, expand, and promote the hardwood industry in the Commonwealth. The council meets on a quarterly basis to review ongoing activities, makes recommendations on issues affecting the hardwood industry, and works with both private industry and all levels of government to achieve these goals.

The council provides a comprehensive needs assessment to develop a long-term strategy for the Hardwood Initiative which was formed into a 56-page document with numerous findings and recommendations. In addition, the council has developed and implemented an aggressive marketing campaign to promote Pennsylvania hardwood and the Commonwealth as a good place to expand or locate a forest products business. The primary objective of this marketing effort is to encourage the expansion of existing Pennsylvania firms. The council also believes a strong continuing education program is needed by small and medium-sized hardwood companies in the state. A \$200,000 grant from the Appalachian Regional Commission (ARC) is being utilized to develop a number of educational efforts.

The council has also formed six multicounty hardwood utilization groups to help organize and promote the industry on a regional basis. The regional groups are involved with a number of activities including technical assistance, resource stewardships, workshops, and seminars. In addition, the Northeast Wood Products Exposition was held for the first time in Pennsylvania in 1989. The Hardwood Development Council has contributed funds for the past two years to help promote the show. The council has provided joint funding with the Pennsylvania Department of Transportation for a timber bridge project that deals with the refinement of design stress values for hardwood.

In its first year, the council funded research projects dealing with the utilization of low-quality logs, wood adhesives, market trends for hardwood products, and a location analysis. Current projects include an analysis of environmental regulations, a job analysis, timber bridge research, and logger training. The council has strongly supported the timber bridge initiative which is being coordinated by the Pennsylvania Department of Transportation, which will construct 17 timber bridges in the Commonwealth during the next two years. A total of \$37,5000 has been earmarked from the Hardwood Initiative for timber bridge research. Furthermore, the Hardwood Initiative has provided financial and other support to the six regional hardwood utilization groups that have formed in Pennsylvania. These groups have pursued a grassroots approach to organizing the industry, and have formed the statewide Pennsylvania Wood Industry Association.

**Tennessee Valley Authority (TVA),  
Renewable Natural Resource Extension Program,  
Manufacturing Development Program,  
Forest Products Development Program  
Tennessee**

Contact: Mike Stiff and Bridgette Ellis  
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Fax: (615) 632-1612

The Tennessee Valley Authority (TVA) forest programs work to develop markets for timber and recruit forest product industries to the Tennessee Valley. The Manufacturing Development Program at TVA has been in existence for about ten years, and serves all industries including the forest/wood products industry. This program works within a 201 county/7 state region. Targeted firms are small to medium sized manufacturing firms. The Manufacturing Development Program provides technical assistance in such areas as industrial engineering, marketing research, and environmental engineering.

The Forest Products program delivers technical assistance to the primary and secondary wood products industry through consulting and training seminars. Some of the specific areas of technical assistance are cost reduction programs for dry kilns, sawmill improvement programs, and statistical process control programs. The Forest Products Program's goal is to provide information to the industry so they can operate more efficiently and maintain or expand their operations. The needs of the industry are identified through site visits to the mills. Issues identified as pressing by the industry are new markets, and waste utilization. TVA has worked with state agencies to produce an industry directory. TVA conducts workshops and training seminars and encourages mills to host more industry visits to their plants. Goals of this program include creating 1,000 jobs per year and reducing residual waste. To meet this second goal, TVA is looking at new and alternative uses of residues, and is conducting a feasibility study on residual wastes in a steam plant.

Both the Manufacturing Development Program and the Forest Products Development Program administered by TVA maintain a close relationship with private industry through outreach and technical assistance. The Manufacturing Development Program works with local chambers of commerce, development organizations, and city and county officials as a means of identifying needs of the various industries this program works with. The Forest Products Program also works cooperatively with other agencies and groups, such as forestry associations. Both programs coordinate efforts with the University of Tennessee, Auburn University, and Mississippi State.

**U.S. Department of Agriculture,  
Renewable Natural Resource Extension Program,  
Washington D.C.**

Contact: Donald E. Nelson  
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Washington, D.C. 20250-0900  
Phone: (202) 720-5004  
Fax: (202) 690-4869

The Renewable Natural Resource Extension Program, created through federal legislation and administered through the Cooperative Extension System, teaches how research results can be applied to the management of renewable natural resources. The USDA Cooperative Extension System is a federal -state -county partnership composed of the USDA Extension Service, state land-grant universities, and local governments. The Extension Service is an agency of the United States Department of Agriculture (USDA). Examples of the wide variety of topics covered in this program are biodiversity, best management practices, sustainable production, resource economics, and wetlands. The audience for this educational program are the owners, managers, and users of renewable natural resources.

The Extension Service directs its programs primarily to owners and users of private lands. It coordinates efforts with other groups interested in managing renewable natural resources such as state and federal conservation agencies, state and county development agencies, state departments of commerce, commodity organizations, forest and wood products industries, and various associations and business organizations. In addition, the Extension Service provides educational programs on the renewable natural resources challenges facing the world to landowners, resource-based industries, communities, and the public.

Program examples are listed in *Renewable Natural Resources Education, Taking Care of our Forests and Rangelands*, (August 1992) including the development of a computerized hardwood veneer quality control program in North Carolina, environmental education through public broadcasting in Maine, and continuing education programs in Minnesota, New Hampshire, and New York. *Renewable Natural Resources Education, Improving the Environment and the Productivity of Forests and Rangelands Through Extension Education, A report to Congress on the 1991-1995 Renewable Resources Extension Program*, list each states successes for the past five years.



**U.S. Department of Agriculture,  
National Timber Bridge Initiative,  
West Virginia**

Contact: National Timber Bridge  
Information Resource Center  
Northeastern Area  
State and Private Forestry  
USDA Forest Service  
180 Canfield St.  
Morgantown, WV 26505  
Phone: (304) 291-1591

The National Timber Bridge Initiative, federally initiated by U.S. Congress in 1989, was developed in response to a need to repair or replace deteriorating highway bridges, and an opportunity to improve and revitalize rural economies. Many of these deteriorating bridges are on double lane, rural roads, and are suited for wood construction now that technological advances have taken timber bridge construction to a new level.

Advances in timber bridge design, treatment, and the preservation of wood have contributed to this initiative and opportunity. The initiative diversifies local economies by improving rural transportation networks, expanding the range of markets for wood products, and creating service industries for wood bridge construction.

The National Timber Bridge Initiative has targeted its efforts in four areas. 1) **Demonstration timber bridges.** Over 200 bridges have been constructed of wood and have proven to be a cost effective alternative to bridges constructed out of concrete and steel. 2) **Research.** Most of the research takes place at the Forest Products Lab in Madison, Wisconsin. This research includes design criteria, sources of hardwood structural lumber, construction methodologies, and monitoring the performance of demonstration projects. 3) **Technology Transfer and Information Management.** The Timber Bridge Information Resource Center provides access to information on emerging technologies, and other reports and publications. It also provides coordination of conferences, workshops, and seminars. 4) **Rural Revitalization.** Economic diversity and community stability is enhanced through emphasizing under-utilized wood in a new product, creating local jobs and long-term employment prospects, and creating additional service industries.

**U.S. Department of Agriculture,  
Rural Development through Forestry Program  
Pennsylvania**

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100 Matsonford Road, Suite 200  
Radnor, PA 19087-4585  
Phone: (215) 975-4103

In 1989, the USDA Forest Service, Northeastern Area State, and Private Forestry developed the Rural Development through Forestry Program to focus its role in rural development and economic diversification assistance. This program, formed through legislation, focuses on improving the quality of life in rural America by emphasizing forest resources. It operates in 20 northeastern and midwest states and is currently involved in demonstration projects in Missouri, Vermont, and West Virginia. It also has special emphasis projects in Delaware, Illinois, Indiana, Iowa, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, Ohio, Pennsylvania, Wisconsin, and with regional groups such as the Northeastern Forest Alliance (NEFA), and Northeast Utilization and Marketing Council (NEUMC). The Rural Development Council through Forestry Program is involved in many projects in these states, providing assessments and analyzing information.

The results of these projects are summarized in the recent publication, *Rural Development through Forestry in the Northeast and Midwest, Status Report, Fiscal Year 1992*.

**Virginia Center for Innovative Technology,  
Technology Transfer & Assistance Program,  
Virginia**

Contact: Harry Groot  
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1000 E. Main St.  
Wytheville, VA 24382  
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Fax: (703) 228-6506

The Technology Transfer and Assistance Program, a non-profit program initially funded by the Appalachian Regional Commission, identifies the needs of the wood products industry through conducting seminars to transfer technology to the industry providing technical assistance.

An assessment survey indicated that kiln capacity was identified as a need by secondary manufacturers, and as a value added opportunity by primary manufacturers. Seminars to transfer technology to the wood products industry were not received with enthusiasm, however, and working with individual firms to transfer technology was received positively by the industry. Subsequent to the grant, both the extension work with individual firms and strides to link the opportunity and the need for kiln capacity have continued. A business plan was developed to form a network of ten primary manufacturers into a limited corporation. The networks goal is to purchase and operate a dry kiln facility, and provide dry lumber to local and export markets. The highest grade dry lumber would go to the export markets, and the rest of the material would go to local secondary manufacturers. The Technology Transfer & Assistance Program is currently looking for a site that will be about 200 acres to not only provide space for the dry kiln facility, but eventually house other networks and businesses that will add other value added steps.

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## Appendix II—Midwest

### ACENET (Appalachian Center for Economic Networks), Ohio

Contact: June Holley, Co-Director  
Address: 94 N. Columbus Rd.  
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Fax: (614) 593-5451

The Appalachian Center for Economic Networks (ACENET), a non-profit organization, performs research and activities designed to provide greater understanding and support of flexible manufacturing networks as an economic development strategy. It strives to create and retain jobs through the establishment of market-driven flexible manufacturing networks, defined as groups of small manufacturers that come together to produce items for custom or niche markets that none of them could manufacture themselves. This organization's model is an adaptation of economic structures that have led to significant economic growth in northern Italy.

ACENET develops direct links between the economic development community and organizations, small business centers, educational institutions, banks, loan funds, technology transfer agencies, government entities, and firms. To date, the local economic development infrastructure has played a key role in designing and carrying out joint projects that support FMN production in four areas: training; telecommunications; modernization; and access to capital.

ACENET has been successful in getting over 70 small manufacturers to participate in producing new, high-value and market-accessible housing components for people with disabilities and the elderly. Four products have been developed to serve this market: an accessible kitchen unit which includes adjustable cabinets and countertops and sinks; a wall-mounted, adjustable desk; a free-standing, Shaker-style adjustable desk; and a gardening tool with a handle designed for ease of use by people with limited grip or hand strength. ACENET also is currently working on the development of two additional niche market FMNs: one will focus on specialty food production; and one will deal with resource reuse and remanufacturing.

## **Council of Great Lake Governors, Illinois**

Contact: Fred Kuzel  
Address: 35 East Wacker, Suite 1850  
Chicago, IL 60601  
Phone: (312) 407-0177  
Fax: (312) 407-0038

Initiated in 1983 and composed of the eight mid-western states of Illinois, Indiana, Ohio, Michigan, Minnesota, Pennsylvania, New York, and Wisconsin, the Council of Great Lake Governors, targets the general wood products industry. The goal of the Governor's Great Lakes Biomass Program has been to promote more uses of wood and wood waste for energy. It provides funds for demonstration projects and provides general information to the public. It also offers a series of workshops on using waste wood for energy and wood combustion for energy.

The Great Lakes Governor's program works with wood manufacturing industries and with the state's energy offices. It assembles an assessment and directory of those who use wood waste, what they do with it, and how they use it. The Biomass Program is funded through the U.S. Department of Energy.

## **Forward Wisconsin, Wisconsin**

Contact: Jim Halverson or Dennis Blang, President  
Address: 316 W. Washington Ave., Suite 105  
Madison, WI 53703  
Phone: (608) 256-4556  
Fax: (608) 252-2083

Forward Wisconsin, a unique non-profit cooperative venture, works to attract new businesses to the state and to promote in-state expansions. Forward Wisconsin works to boost the state's image within and outside the state by projecting the state's positive business climate and attracting industry to Wisconsin. The corporation's marketing plan focuses its resources on the forest products sector as one of their ten target industries. Forward Wisconsin uses a wide range of economic development marketing tools which include: direct mail campaigns to targeted industries and geographic areas; out-of-state prospecting trips; trade show booth appearances at targeted industry expositions; print advertising campaigns directed toward geographically targeted publications and target industry journals; and special event promotions. Forward Wisconsin also provides site and community information, utility and tax comparisons, financial information, and a variety of other services to prospective businesses.

Forward Wisconsin was created in 1984 on the recommendation of a 1983 Marketing Wisconsin Task Force Report. Forward Wisconsin's funding is provided by the state through a contract with the Department of Development, and by private sector contributors.

**Governor's Council on Forestry,  
Ohio**

Contact: William Johnson  
Address: Box 810  
Hayward, WI 54843  
Phone: (715) 634-4843  
Fax: (715) 634-5755

The Governor's Council on Forestry, composed of state representatives and private industry, monitors the industry and advises the Governor regarding legislation that will promote economic growth on a state and national level. It has created an excellent relationship between the Governor and industry, and promoted a better understanding of the industry and national forests. The council has also been successful on budgetary items that are relevant to the growth of the forestry sector, and has worked with the Department of Natural Resources, providing forestry appreciation to the state's school system.

**Illinois Council on Forestry Development,  
Illinois**

Contact: Al Mickelson  
Address: 218 W. Lawrence St.  
Springfield, IL 62704  
Phone: (217) 523-5442  
Fax: (217) 523-5528

The Illinois Council on Forestry Development, formed by the General Assembly Council of Illinois in 1983, targets primary and secondary wood products. The Forestry Development Act was initiated to address long-standing concerns in the mid-west: high land cost, high investment, longer return, and high risk. The Council helped establish a cost share program for self financing via a 4 percent harvest fee on all timber cut in Illinois, provides an analysis of resources in the state, and makes recommendations to agencies and legislators.

**Illinois Department of Conservation, Division of Forestry,**  
Illinois

Contact: John Sester  
Address: 600 N. Grand Ave.  
P.O. Box 19225  
Springville, IL 62794

The Division of Forestry, within the Illinois Department of Conservation, works on economic development proposals and timber bridge development, and releases a publication to industry on export leads. It also has a monthly newsletter that includes information about the wood products industry.

**Indiana Wood Products Competitiveness Study,**  
Indiana

Contact: Graham Toff or Susan Koch  
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Indianapolis, IN 46204  
Phone: (317) 631-0871

The Indiana Wood Products Competitiveness Study (IWPC) assessed the competitive position of Indiana's wood products industry. It identified challenges facing the industry, formulated options to address these challenges, and recommended implementation strategies for each option.

This project was initiated by State Division of Forestry and was funded by a federal forestry grant. The Division of Forestry contracted with IEDC to carry out the study and final results will be released jointly. The IWPC study also had extensive private sector involvement from an advisory panel made up of industry representatives.

**Lake State Lumber Association,**  
Michigan

Contact: Bob Owens  
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Iron Mountain, MI 49801  
Phone: (218) 724-9486  
Fax: (218) 723-1151

The non-profit Lake State Lumber Association is composed of primary saw mill manufacturers, value added operations, secondary manufacturers (furniture and cabinet makers), and suppliers. This association has oriented its efforts toward hardwoods in the

primary and secondary wood products industry. Its objectives are to: protect timber supply to maintain a sustained yield; project a favorable industry impression to the public through promotion programs; lobby efforts at the state level for workers compensation and transportation concerning storm water run off, and related forestry issues; and educate members to improve the profitability.

The Lake State Lumber Association worked for passage of the Ottawa National Forest Plan, a balanced forest plan which takes into consideration biodiversity, scenic beauty, water quality, and timber harvesting.

## **Michigan Grand River Guild, Michigan**

Contact: Jim Malnight  
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146 Monroe Center  
Grand Rapids, MI 49503  
Phone: (616) 454-0979  
Fax: (503) 388-6362 (in Oregon)  
(616) 454-7734

The Michigan Grand River Guild, a non-profit organization, was formed by the Department of Commerce in Michigan and mainly targets secondary wood products. The Grand River Guild is currently working with 17 companies in 3 states to help them with product development and bring them together with other companies and dealers.

## **Mississippi Forest Products Laboratory, Mississippi State University, Mississippi**

Contact: Harold Stewart  
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Mississippi State, MS 39762-5724  
Phone: (601) 325-2116  
Fax: (601) 325-8126

The Mississippi Forest Products Laboratory at Mississippi State University researches toolware mechanisms and the mechanics of chip formation for the development of longer-lasting tools with a higher surface quality. It also has a furniture research unit and provides technical assistance to wood manufacturers in the area of wood machinery.



**Missouri Department of Conservation,  
Missouri**

Contact: Shelby Jones  
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Jefferson City, MO 65102  
Phone: (314) 751-4115  
Fax: (314) 893-6079

The Missouri Department of Conservation provides technical assistance to all sectors of the forest industry on a request basis and handles rural development forestry. This department has a Forest Resource Data Center which has proven to be a valuable information source for industries. It supplies information referrals, provides analysis and interpretation, and is proactive in economic development and marketing. One of the department's most important functions is compiling and distributing funding for rural development. It also works closely with forest product trade associations; has a proactive international marketing program; manages F.I.A. data in-house; and coordinates resource measurement. The Department of Conservation also works with other agencies on projects.

**Missouri Forest Products Association,  
Missouri**

Contact: Sandy Wallendorf  
Address: 611 E. Capital Ave., Suite 1  
Jefferson City, MO 65101  
Phone: (314) 634-3252  
Fax: (314) 636-2591

The Missouri Forest Products Association membership includes loggers, wood products manufacturers, forest land owners, and government agencies involved in forestry. The association holds two annual meetings, provides educational services, and keeps in touch with legislative members on current legislation. It also conducts educational workshops for members and keeps them informed of what is being done in the wood products industry.

The Missouri Forest Products Association has also served as a liaison for its members and the Department of Natural Resources.

**Northern Economic Initiatives Corporation,  
The U.P. Furniture Manufacturers Network,  
Michigan**

Contact: Richard Anderson  
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Marquette, MI 49855  
Phone: (906) 228-5571  
Fax: (906) 228-5572

The Northern Economic Initiatives Corporation (NEICorp), supported by funding from the Midwest Manufacturing Technology Center, was designed as a three pronged program to accomplish three goals. First, NEICorp's secondary wood strategy aims to modernize the front operations of the region's small to medium-sized wood manufacturers by assisting participants with assessing their computer needs, jointly ordering equipment for modest savings, structuring a training curriculum, and helping these firms understand and build on their core competencies as manufacturers. Secondly, NEICorp strives to reduce bottle necks in productivity facilitating quarterly meetings and tours among the Upper Peninsula's five major furniture and associated wood product manufacturers. This fosters comfortable networking relationships which encourage the development of component supplier relationships with smaller wood manufacturers. Thirdly, NEICorp aims to establish an alliance between itself and the Michigan Association of Timbermen by offering strategic planning, counseling, and assistance. This alliance may help NEICorp deliver market-driven programs to associated members.

**U.S. Forest Service,  
Illinois North Central Forest Experiment Station,  
Illinois**

Contact: Peter Y.S. Chen or J.W. Van Sambeek  
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Carbondale, IL 62901  
Phone: (618) 453-2318  
Fax: (618) 453-2911

The North Central Forest Experiment Station, with the United States Forest Service, targets the secondary wood products industry. The program works on projects with the Walnut Council, the National Forest Products Association, and the Illinois Council on Forestry Development. The research mission of the Carbondale Forestry Sciences Laboratory is to develop the physiological and genetic knowledge needed to produce improved planting stock, improve tree growth, develop better artificial regeneration prescriptions for central hardwood species, determine the influence of various management practices on wood properties and product quality of central hardwood species, and develop better uses for low-quality trees in the Central Hardwood Region to enhance forest-based economies in rural America.

The North Central Forest Experiment Station has published articles outlining the relationship between silviculture practices, log grade (especially for veneer), and wood quality.

**University of Illinois at Urbana-Champaign,  
Illinois**

Contact: Dick Brazee or Anthony Pugel  
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1102 S. Goodwin  
Urbana, IL 61801  
Phone: (217) 333-6271  
Fax: (217) 244-3219

Dick Brazee's research team conducts research on biodiversity issues. It has also worked on issues related to timber harvesting and the development of second best solutions when there are serious revenue constraints. Researchers are also working on environmental protection and price distortion for natural resources, especially in the area of Latin America.

Dr. Anthony Pugel's research team has worked to create a hardwood database containing 2000 articles on hardwood exporting and drying. The team is currently compiling a directory for secondary manufacturing.

**Wisconsin Department of Agriculture and Trade and Consumer  
Production in Marketing,  
Wisconsin**

Contact: Jeff Duffin  
Address: 801 W. Budget Rd.  
P.O. Box 8911  
Madison, WI 53713  
Phone: (608) 266-2221  
Fax: (608) 266-1300

The Wisconsin Department of Agriculture and Trade and Consumer Production in Marketing coordinates international export activities with the Wisconsin Department of Natural Resources. It receives trade leads and conducts trade missions to Asia, Italy, and Japan, and also brings foreign buyers to Wisconsin. The Department has also developed a Lake State Export Directory of wood product manufacturers in the state, established a database of forest product suppliers, and provided assistance and consulting on export regulations and import restrictions.

**Wisconsin Department of Natural Resources,**  
Wisconsin

Contact: Terry Mace  
Address: 3911 Fish Hatchery Rd.  
Fitchburg, WI, 53711  
Phone: (608) 275-3276  
Fax: (608) 275-3338

The Wisconsin Department of Natural Resources Forest Products Unit promotes the better use of Wisconsin's forest resource by strengthening its forest industry, maintaining or increasing existing jobs, and utilizing surplus forest resources through expansion of the state's forest products industry. Retention of the state's primary and secondary forest industry is achieved through technical assistance to individual firms, state economic development agencies, communities, and regional planning commissions. The department also works to market the state's primary, secondary, and wood-based recycling forest products industry to develop international markets. Other functions the department performs include: providing training for forest products technology transfer; providing forest industry surveys and inventory analysis; promoting public awareness; and helping to administer federal programs designed to manage and use natural resources for economic growth.

During the last several years, the Forest Products Unit has been involved in a multitude of activities designed to strengthen Wisconsin's forest industry and its overall economy. The unit has provided wood using industries with wood availability information, resulting in the establishment of several lumber related product mills in the state, and employing more workers. In addition, a pulpmill siting study for the Governor was completed in 1989 which may lead to more pulping capacity and substantial investment in the state. Wood availability studies completed in conjunction with the Northwest Regional Planning Commission could aid in locating new wood industries in Northwest Wisconsin.

The Forest Products Unit has worked with Forward Wisconsin to promote business development by attending forest product trade shows in the United States, Europe and Japan. It also assisted in compiling the Tri-State Forest Product Export Directory (prepared jointly with Wisconsin, Michigan, and Minnesota), which has been sent to 500 companies in 28 countries.

**Wisconsin Pri-Ru-Ta RC & D Council,**  
Wisconsin

Contact: Lee Hanks  
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Medford, WI 54451  
Phone: (715) 748-2008  
Fax: (715) 748-4841

The Pri-Ru-Ta RC & D Council is made up of a Council of County Board members and targets general, primary, and secondary wood products. One current project involves

assisting a paper company with a feasibility study to investigate types of paper to be manufactured profitably. The council also funded a 1992 project where it worked with a small company marketing alternative forest products.

## **Southern Ohio Wood Flexible Manufacturing Network, Ohio**

Contact: Jeff Spencer, Ivy Steele  
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          Portsmouth, OH 45662  
Phone: (614) 354-7795  
Fax: (614) 353-6353

The Southern Ohio Wood Flexible Manufacturing Network is a regional planning commission providing technical assistance to wood product manufacturers. The organization assists with grant writing, safety training, management practices, and financial packaging. It also co-sponsors workshops on wood manufacturing. This organization receives some assistance through the U.S. Forest Service Extension Service and serves 11 Appalachian counties.

## Appendix III—Northwest

### City of Thome Bay, Alaska

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Phone: (907) 828-3380  
Fax: (907) 828-3374

The City of Thome Bay assists the primary and secondary wood product industries with materials availability and transport and with site acquisitions for operations. By lobbying the state government to make parcels of state land available for commercial and industrial use, the city has formed a close relationship with other public agencies.

The City of Thome Bay has been successful in identifying, subdividing, and releasing state lands appropriate for commercial and industrial development.

### Clackamas County Wood Products Response Team, Oregon

Contact: Gary Kuhn  
Address: P.O. Box 215  
Marylhurst, OR 97036  
Phone: (503) 635-9137  
Fax: (503) 635-8946

The Wood Products Response Team in Clackamas County was formed to prepare for the possible dislocation of wood products workers and the effects of resource priority management on the wood products industry. The identifies resources, develops and coordinates services, and disseminates information to assist timber dependent communities and affected individuals in the county. The volunteer membership is divided into two groups. *The Immediate Response Group* has arranged skill-building classes for mill workers and dissemination of information about services for dislocated and potentially dislocated workers. *The Long Range Planning Group* has worked extensively with Clackamas Community College and the Associated General Contractors to establish a pre-apprenticeship program to help dislocated wood workers build marketable skills in the construction industry.

The Wood Products Response Team interacts with mills and businesses in surrounding rural communities, and works with local, state, and federal agencies on economic development and forestry issues. The Team organized computer classes for wood products workers, and has published an *Annual Mill Status Report*.

## **Economic Development Association of Skagit County, Washington**

Contact: Gary Arentzen  
Address: P.O. Box 40  
Third & Montgomery  
Mt. Vernon, WA 98273  
Phone: (206) 336-6114  
Fax: (206) 336-6116

The Economic Development Association of Skagit County offers business and technical assistance to established wood products manufacturers individually and through workshops. It identifies markets for manufacturers and facilitates networking among manufacturers with various resources such as: sources of material; financing; and specialty sub-contracts (contractors). It also works with various local, state, and federal agencies to coordinate these services.

## **Evergreen Partnership, Washington**

Contact: Greg Schellberg  
Address: World Trade Center, Suite #502  
3600 Port of Tacoma Rd. E.  
Tacoma, WA 98424  
Phone: (206) 922-6640  
Fax: (206) 922-2769

The Evergreen Partnership is a private non-profit organization established by Washington government and private interests to represent and serve the forest products and building materials industry. It aids in the development and expansion of international and domestic markets for Pacific Northwest wood products and building materials by serving as a focal point for marketing information and activity. Potential customers make inquiries concerning resources, services, and markets directly to the partnership.

The Evergreen Partnership also develops education programs so that significant timely market information can be effectively disseminated to the industry; and attempts to develop relationships with home builders throughout the Pacific Rim by introducing them to regional firms through trade missions, home shows, plant tours, dinners, and receptions. This organization currently has an international database that includes over 500 perspective buyers of housing materials and has instituted a forest products industries' public awareness campaign to educate the public on the industry's importance to the region's economy.

The 19-member Board of Directors has ten seats reserved for forest products and building materials industry representatives, and the department heads from the Washington Departments of Natural Resources and Trade and Economic Development automatically fill two positions.

**Flathead Economic Development Corporation,  
Montana**

Contact: Carol Daly  
Address: 777 Grandview  
Kalispell, MT 59901  
Phone: (406) 756-8548  
Fax: (406) 765-3815

The Flathead Economic Development Corporation establishes networks and focuses on one-on-one marketing efforts with individual companies. It also supports science and technology research and development for private operators. The program aims to build consensus on land-use plans county-wide and implements appropriate regulations and incentives. The Flathead Economic Development Corporation has established a community-wide Total Quality Management program for manufacturers, service businesses, and government agencies to increase value and efficiency of production and services. It also explores options for life-long learning programs, especially as they relate to worker or employer training and retraining.

Eighty percent of the funds for the Flathead Economic Development Corporation come from the private sector, with the remaining twenty percent coming from Flathead County and the cities of Whitefish, Kalispell, and Columbia Falls.

**Lewis County Economic Development Council,  
Washington**

Contact: Pam Brown  
Address: P.O. Box 916  
Chehalis, WA 98532  
Phone: (206) 748-0114

The Lewis County Economic Development Council coordinates with the Department of Trade and Economic Development to arrange meetings with wood product manufacturers and other groups. This organization assists with community development, emphasizing long-term visions and diversification. It works with managers on surveys, special challenges, and seminars that will help reduce manufacturers' costs. Other functions the council provides include market development of international opportunities and broker information.



## **Montana Competitiveness Council, Montana**

Contact: Christine Mangiantini  
Address: P.O. Box 613  
Helena, MT 59624  
Phone: (406) 443-2434  
Fax: (406) 443-2702

The Montana Competitiveness Council (MCC) is interested in establishing a regional advisory group to work on regional legislation and other efforts. It recently hosted a conference in Missoula on flexible manufacturing networks, as a part of its work with manufacturing firms to promote linkages. An upcoming study examines existing networks, linkages, productivity, and competition in Montana. A flexible manufacturing demonstration project is currently being established in eight counties in Southwestern Montana.

## **Okanogan County Resource Roundtable, Washington**

Contact: Elaine Omachi  
Address: Box 1042  
Omak, WA 98841  
Phone: (509) 826-5107 or (509) 826-3502  
Fax: (509) 826-1812

The Okanogan County Resource Roundtable is a volunteer cooperative of craft and wood-workers providing support for expansion activities. Their work includes market research, education and training workshops, and a newsletter. It is a resource for existing small wood crafts businesses as well as for timber workers who are starting one up. The Roundtable serves as a liaison between the timber workers and financial institutions, and as a guide to business management and marketing information.

Working with administrative and office support from the Okanogan County Council for Economic Development and other public agencies, the cooperative has increased marketing efforts and is planning to enter the group in a trade show. In addition, two spin-off businesses are being started by craftworker members.

**Oregon Economic Development Department,  
Regional Strategies Program,  
Oregon**

Contact: Theresa Taaffe  
Kathleen Gardipee  
Address: 775 Summer St. NE  
Salem, OR 97310  
Phone: (503) 373-7361

The Regional Strategies Program in the Oregon Economic Development Department is both a planning process and a grant program. The region identifies three to four industries to undergo an industry assessment and *then* chooses a key industry focus.

Primarily a county program, the Key Strategies Program serves on regional committees. In addition, the private sector was contacted during the development of the key industry assessments. Representatives from government serve on its Regional Committees and participate in the project review process. The U.S. Forest Service and the State Department of Forestry are also primary partners.

**Oregon Economic Development Department,  
Flexible Networks for Oregon Business,  
Key Industries Development Program,  
Oregon**

Contact: Janet Jones  
Address: 775 Summer St. N.E.  
Salem, OR 97310  
Phone: (503) 378-2286  
Fax: (503) 581-5115

The Key Industries Development Program in the Oregon Economic Development Department was created through Senate Bill 997, which called for the development of flexible networks in key industries. This program, created in 1991 by the Oregon legislature, works to facilitate networks as one way to encourage existing small businesses to work together to become more competitive in the global marketplace.

The program is implemented in partnership with the business community and key industry trade associations. It also works closely with the Oregon Wood Products Competitiveness Corporation on grant awards for proposals that mainly involve the forest products industry. Grants are lottery funded.

## **Oregon Marketplace, Oregon**

Contact: Brenda Chetham  
Address: 618 Lincoln Street  
Eugene, OR 97401  
Phone: (503) 343-7712  
Fax: (503) 687-4899

The Oregon Marketplace is based on the concept of import substitution, replacing previously imported goods and services with local products, resulting in the economic development of the local economy. A network of regional programs is linked through a central office clearinghouse and a statewide computer network and database. Field brokers conduct searches on behalf of purchasers for Oregon businesses to respond to contract opportunities.

## **Oregon State University Extension, Linn-Benton Regional Strategy, Oregon**

Contact: Robin Galloway  
Address: 550 South Main St.  
Lebanon, OR 97355  
Phone: (503) 258-3181  
Fax: (503) 258-3420

The Linn-Benton Regional Strategy with the Oregon State University Extension is a two-county partnership working to help businesses plan for the future by encouraging the implementation of new ideas and technology. This program provides businesses with technical assistance and financial support. It also has a business incubator facility for new and existing businesses that create a new crop, product, process, or service. High technology, agriculture, and forestry are the key industries selected for emphasis. This program hopes the use of new ideas and technology will diversify local industry and add value through new processing opportunities.

The Linn-Benton Regional Strategy is administered by the Oregon Economic Development Department through its Regional Strategies Unit. Commissioners of Linn and Benton Counties work closely with program planning.

**Oregon State University Extension Service,  
Timber-Dependent Families & Communities Project,  
Oregon**

Contact: Flaxen Conway  
Address: Dept. of Agr. & Resource Economics,  
Ballard Hall 213  
Corvallis, OR 97331-3601  
Phone: (503) 737-1418  
Fax: (503) 737-3601

The Timber-Dependent Families & Communities Project was initiated in 1991 with OSU Extension taking the lead. It is a university-wide effort to draw on existing resources to design materials and deliver broad-based educational programs to create bridges between OSU's resources and timber-dependent communities and families. The program is located in 36 local county extension offices, and works with the private sector via coalitions and projects.

The program has developed the following educational materials: "Managing Between Jobs;" "Family & Youth Tool Kit;" and "Community Tool Kit."

**Overseas Strategic Services,  
Oregon**

Contact: James Thayer  
Address: World Trade Center  
121 S.W. Salmon St., Suite 1100  
Portland, OR 97204  
Phone: (503) 223-3449  
Fax: (503) 223-5841

As a private international management firm, Overseas Strategic Services offers U.S. firms direct hands on assistance with which to enter the European market and perform contract work for state and federal agencies. Marketing services include the identification and evaluation of specialized distributors, and introducing important professional service to providers. Consulting services are also provided for the establishment of strategic alliances between the U.S. and European firms.

The firm has developed two strategic alliances in Europe and has World Bank funding approval for a major project there. The company is expanding its client base to include firms across the U.S. and Europe.

## **Pacific Wood Products Cooperative, Washington**

Contact: Carrie Colson  
Address: P.O. Box 1422  
Chehalis, WA 98532  
Phone: (206) 748-1597  
Fax: (206) 748-0903

The Pacific Wood Products Cooperative is a network cooperative that works with wood manufacturers to develop products and markets. It also conducts market analysis for a variety of projects in several counties.

## **Puget Sound Cooperative Federation, Washington**

Contact: Carol DiMarcello  
Address: 4649 Sunnyside Ave. N., #323  
Seattle, WA 98103  
Phone: (206) 632-4559

The Puget Sound Cooperative Federation, established in 1979, is an association of consumers and worker-owned businesses with programs throughout Washington and in Oregon and Alaska. The Cooperative Federation helps foster the success of cooperative enterprises by providing business assistance in organizational development, short and long range planning, market analysis, business plan development, financial training, and problem solving methods.

Working in collaboration on community-based economic development projects with the State Department of Community Development, this cooperative organization encourages the application of flexible manufacturing network concepts in its development work with cooperative businesses. It .

## **Southern Oregon Regional Economic Development, Inc., Oregon**

Contact: Corky Leister  
Address: 132 W. Main, Suite 101  
Medford, OR 97501-2746  
Phone: (503) 773-8946  
Fax: (503) 779-0953

Southern Oregon Regional Economic Development, Inc. is a private nonprofit organization which works to promote the creation and retention of jobs through marketing, expansion, and diversification of Southern Oregon's economic base. It recruits and

assists new industries from outside the region, helping them retain and expand their local businesses. It also coordinates and facilitates local and regional efforts to increase family wage jobs in Southern Oregon. Other assistance this organization provides includes financing, relocation, development and growth, press conferences, and resource networking.

## **Tradec, Washington**

Contact: Scott Jackson  
Address: 600 University St., Suite 2801  
Seattle, WA 98101  
Phone: (206) 224-4240  
Fax: (206) 224-4344

Tradec is a private firm performing trade development and market promotion for wood manufacturers. It targets general wood products and assesses market demands in the general wood industry. This firm is looking at creating a cooperative to market firms internationally and is especially interested in marketing wood products in Japan, Taiwan, and Europe. This company also works collaboratively on projects with the Washington State Department of Trade and Economic Development.

Tradec has implemented a number of international trade promotion projects in the wood products industry which include an APA Program and Export Expo '93.

## **U.S. Department of Agriculture, Pacific Northwest Research Station, Oregon**

Contact: Roger Fight  
Address: P.O. Box 3890  
Portland, OR 97208  
Phone: (503) 321-5804  
Fax: (503) 321-5901

The Pacific Northwest Research Station primarily researches how pruning can provide clearer wood for secondary wood manufacturers. This is an indirect link to value added efforts because pruning creates a high quality wood product. The production of the high quality of clear lumber through investing in pruning will add value to the wood harvested. This has an important implication for manufacturers who are looking at a diminishing wood supply.

**University of Alaska, Fairbanks,  
Utilization Program for Alaska Woods,  
Alaska**

Contact: Tony Gasbarro  
Address: Cooperative Extension Service  
University of Alaska  
Fairbanks, AK 99775-5200  
Phone: (907) 474-6356  
Fax: (907) 474-7439

The Utilization Program for Alaska Woods (UPAW) is an informal group of departments on the University of Alaska, Fairbanks campus and is affiliated with the USDA Forest Service. This program explores research and development needs, plant size feasibility, product specifications, and financing and marketing strategies. In November of 1990, it sponsored a workshop on value-added opportunities for Alaska forest products. The workshop objectives included the examination of the potential for increasing the use of Alaska's tree species for engineered wood products, wood structures, and extractive chemicals. It also aimed to identify strategies for developing and financing this potential and providing technical support for designers and producers. The program is working to develop an action program for the use of Alaska tree species and to promote value added forest products industries in Alaska.

**University of Alaska Southeast,  
Economic Development Center,  
Alaska**

Contact: C.L. Cheshire  
Address: Ketchikan Campus  
7th & Madison  
Ketchikan, AK 99901-5798  
Phone: (907) 225-6171  
Fax: (907) 225-3895

The Economic Development Center at the University of Alaska Southeast was formed through an appropriation from the Ketchikan Gateway Borough to identify ways to attract wood manufacturers to the region. A feasibility study prepared for the Southeast Conference in 1991 encourages value added timber manufacturing in Southeast Alaska. This study recommends that Alaska wood products industry should: increase timber employment where it is declining due to rising round log exports; take advantage of a rising demand abroad, particularly in Japan, for finished building materials and western style construction; and take advantage of the West Coast's highly developed industrial infrastructure. The study was intended to initiate public exploration of value added opportunities.

**University of Idaho,  
Forest Products Department,  
Wood Use & Design Program,  
Idaho**

Contact: Dr. Tom Gorman  
Address: College of Forestry, Wildlife and Range Sciences  
University of Idaho  
Moscow, ID 83843-4199  
Phone: (208) 885-7402  
Fax: (208) 885-6226

The Forest Products Department at the University of Idaho focuses on identifying new markets for wood products, helping timber-dependent communities diversify, conducting business feasibility and mill studies that explore adding value to the processing for primary wood products. It is also working with three timber-dependent communities in Idaho on their Farm Bill plan, which would provide funding for economic diversification and sustainability. The Department has also compiled a descriptive analysis of Idaho's forest products industry, which includes information on the secondary wood products industry.

The Wood Use & Design Program was established by industry to increase the shrinking population of students in wood products programs. It provides educational programs for sawmills workers and owners to help them better understand the new technology coming into the industry. The program also wanted to provide tactical applied research, which is funded by private industry.

**University of Montana,  
Bureau of Business and Economic Research,  
Montana**

Contact: Charles Keegan  
Address: Missoula, MT 59812  
Phone: (406) 243-5113  
Fax: (406) 243-2086

The Bureau of Business and Economic Research is the research branch of the School of Business Administration at the University of Montana. This unit targets general and primary wood and paper products. A single analysis of the Montana industry has grown into comprehensive studies of the Montana, Wyoming, and Idaho industries. The Bureau has also studied Arizona, Colorado and Wyoming forest product operations. In cooperation with the US Forest Service, the Bureau developed the Forest Industries Data Collection System (FIDACS) to survey forest products firms in western states. FIDACS produces information about the number and size of mills, the types of products produced, the source and ownership of the industry's timber supply, capacity utilization, and destination markets for finished products. The Bureau produces a comprehensive report on Montana and Idaho firms every five years. The Forest Service, utilizing FIDACS,



conducts research in other states and the resulting information is stored at the Bureau. In cooperation with the Montana Wood Products Association, the Bureau conducts the quarterly Forest Industries Information System survey, which provides current information on employment, wages, production expenditures, and timber use in the state's forest products industry to the media and others. Recently, the Bureau worked with the University of Montana School of Forestry collecting data to develop a directory of secondary wood products manufacturers in Montana.

The Bureau of Business and Economic Research performs contract work and is a clearinghouse for information on various aspects of the industry. It also works cooperatively with federal and state agencies both in and outside of Montana, providing information.

**University of Montana,  
School of Forestry,  
Montana**

Contact: Edwin Burke  
Address: Missoula, MT 59812  
Phone: (406) 243-5521  
Fax: (406) 243-4845

The School of Forestry at the University of Montana targets general and secondary wood products, conducting feasibility studies on assistance to organizations doing marketing efforts. It is also conducting a feasibility study on an Inland Northwest Regional Research & Development Program for secondary wood products. The school often contracts with the Small Business Administration.

The School of Forestry has completed a directory of secondary industry in Montana, made an overview assessment of secondary industry in the state, and completed a pilot program in marketing assistance.

**University of Washington,  
Center for International Trade in Forest Products, (CINTRAFOR),  
Washington**

Contact: Bruce Lippke, Director  
Address: College of Forest Resources, AR-10  
University of Washington  
Seattle, WA 98195  
Phone: (206) 543-8684  
Fax: (206) 543-3254

The Center for International Trade in Forest Products addresses opportunities and programs related to the international trade of wood and fiber products. The Center emphasizes forest economics and policy analysis, trade and environment, technology

development, marketing, and value added wood products. CINTRAFOR's Value Added Wood Products Program provides information to the manufacturers of wood products in the Pacific Northwest. The core of CINTRAFOR's research program is a comprehensive and integrated set of studies addressing key problems and opportunities inherent in the international trade of forest products. Five emphasis areas comprise CINTRAFOR's research: Pacific Rim Forest Products Trade Assessment, International Wood Construction Research, Country Market Profiles and Special Study Topics, and a Global Trade Model (GTM).

CINTRAFOR produces many publications and participates in over 20 major conferences. It has also received the Sunset Review Committee Endorsement. CINTRAFOR has close ties with wood products businesses, foreign consumers, and policymakers on all government levels.

**U.S. Department of Commerce,  
Northwest TAAC (Trade Adjustment Assistance Center),  
Washington**

Contact: Robert Miller  
Address: 900 Fourth Ave., Suite 2430  
Seattle, WA 98164-1003  
Phone: (206) 622-2730  
Fax: (206) 622-1105

The Northwest TAAC, in existence since 1974, is funded by the U.S. Department of Commerce to help U.S. manufacturers struggling to compete with imported products regain their competitiveness. Companies that have experienced recent declines in sales and employment due to increasing import competition are eligible to participate in the program. The federal government pays up to 75 percent of the cost of consulting services designed to help the client firm improve its competitive position. Typical projects eligible for program funds include: market studies; export assistance; ISO 9000 registration; plant engineering improvements; worker incentive plans; marketing promotional literature; cost systems; the development of management information systems; and general financial and management consulting. There is no cost to apply to the program.

The Northwest TAAC works with companies to help them design successful strategies to compete with lower priced imports. The Northwest TAAC is funded by the U.S. Department of Commerce and administered by twelve regional organizations nationwide.

**Washington Department of Community Development,  
Timber Public Works Trust Fund,  
Washington**

Contact: Karin Berkholtz  
Address: 906 Columbia St. S.W.  
P.O. Box 48319  
Olympia, WA 98504-8319  
Phone: (206) 753-4283  
Fax: (206) 586-6868

The Timber Public Works Trust Fund is administered by the State Washington Department of Community Development to provide loans for new or expanded infrastructure projects in communities in designated timber-impacted areas. The fund also provides for increased diversified economic opportunities for residents of timber dependent areas of Washington state. Project feasibility is a primary consideration.

**Washington State Department of Trade & Economic Development,  
Community Economic Revitalization Board,  
Washington**

Contact: Kathleen Engle  
Address: 2001 6th Ave, Suite 2700  
Seattle, WA 98121  
Phone: (206) 464-6282  
Fax: (206) 464-5868

The Community Economic Revitalization Board is a program established in 1991 in the Washington Department of Trade & Economic Development to provide loans or grants to communities in designated timber-impacted areas. Funds are provided for new infrastructure projects to support potential industrial or tourism projects, and improve economic development and diversification opportunities.

CERB's public infrastructure supports private business development in job creation and retraining. Its staff are represented on the Economic Development Subcommittee of the Governor's Timber Task Force. The Economic Development Subcommittee, comprised of state, federal and local government representatives, provides a forum for discussing potential projects and issues, and coordinates state and federal finance assistance.

**Washington State Export Assistance Center,  
Washington**

Contact: Ken Keach  
Address: 2001 Sixth Ave., Suite 2100  
Seattle, WA 98121  
Phone: (206) 464-7123  
Fax: (206) 587-4224

The Export Assistance Center was created by mandate by the Washington State Legislature in 1990, and has close ties to the Washington Department of Trade and Economic Development. The Export Assistance Center provides export financing assistance to small and mid-size businesses. These services include the following: delivering export transaction training and export finance counseling; determining the financial risk of specific export transactions; determining the payment terms and structure for appropriate funding; and identifying and introducing sources of export-related financial services.

The Pacific Northwest Export Assistance Project (PNEAP) is geared to helping timber manufacturers. By mandate from the legislature, the PNEAP must serve 50 percent of the timber-impacted communities. This project works with small to medium manufacturers who could potentially increase exports or who find it difficult to enter the exporting arena.

**Washington Department of Trade and Economic Development,  
Forest Products Division,  
Washington**

Contact: Kay Gabriel  
Connie Taylor  
Address: 919 Lakeridge Way S.W., Suite A  
Olympia, WA 98502  
Phone: (206) 586-1871 or (206) 753-3065  
Fax: (206) 586-4849

The Forest Products Division of the Washington Department of Trade & Economic Development was formed by the legislature in 1989 (HB 1341) and receives funding from the U.S. Forest Service from a Revolving Loan Fund. The Forest Products Division provides policy development, initiates programs, and gives technical assistance to small and medium-sized forest product companies. The division provides grants for technical and market feasibility studies for value added manufacturing, and loans for value added manufacturing equipment. It also works closely with other state economic development agencies and is an active member of Governor's Timber Task Force and its Economic Development Subcommittee.

**Washington Governor's Timber Team,  
Washington State Legislature,  
Washington**

Contact: Rich Nafziger  
Address: 2400 Capital Way, Room 201, QE-22  
Olympia, WA 98504  
Phone: (206) 586-4046  
Fax: (206) 586-4162

The Governor's Timber Team in Washington State has been in existence for three years and uses legislation and other policy instruments to target general, primary, and secondary wood products. The Team is currently working on bills in Washington to provide economic assistance, training, and re-training to timber-impacted areas in Washington.

**Washington University Cooperative Extension,  
(Western & Eastern Divisions)  
Washington**

Western

Contact: James Freed  
Address: 9 Federal Building  
Shelton, WA 98584  
Phone: (206) 427-9660  
Fax: (206) 427-7264

Eastern

Contact: Peter Griessman  
Address: 230 Williams Lake Road  
Colville, WA 99114  
Phone: (509) 684-2588  
Fax: (509) 684-8310

The Washington State University Cooperative Extension helps people develop leadership skills and use research-based knowledge through seminars and other educational programs. The Western Division is concerned primarily with Agroforestry, while the Eastern Division targets primary and secondary wood products. Both extension divisions work with individual companies and associations providing training and basic research.

The Western Division has helped new business get started, new practices used, and new and improved products developed. The Eastern Division has provided small businesses with more business management information and has found niche markets for existing commodity-based lumber businesses.

**WoodNet,  
Washington**

Contact: Gus Kostopoulos  
Address: 127 E. First, Suite 4W  
Port Angeles, WA 98362  
Phone: (206) 452-2134  
Fax: (206) 452-7065

WoodNet, a non-profit organization formed in 1991, sets up manufacturing networks on the Olympic Peninsula between the manufacturers of such diverse products as: arts & crafts; construction products; mills; marine products; and home furnishings and fixtures. It is funded by a Northwest Area Foundation grant along with such state and federal agencies as U.S. Forest Service, Washington State Department of Trade & Economic Development, the Export Assistance Center, and the Department of Community Development.

WoodNet has been involved in various local, state, and international trade shows, and has produced an Olympic Peninsula consumer products wholesale catalog, and a networking newsletter for members. WoodNet is also working with the Export Assistance Center on a joint demonstration project.

**Wood Products Competitiveness Corporation,  
Oregon**

Contact: Ray Daffner  
Address: 20354 Empire Avenue, Suite D-3  
Bend, OR 97701  
Phone: (503) 388-6372 or (800) 548-8438  
Fax: (503) 388-6362

The Wood Products Competitiveness Corporation (WPCC) is charged with assisting the state's secondary wood products industry in becoming the finest, most competitive value added producer in the world. Established in 1991 by the State of Oregon, the legislature created WPCC as a coordinating entity to devise strategies to improve and promote the competitiveness of Oregon's secondary wood products industry. This was partially in response to the job losses facing timber dependent communities, but also because of global economic changes facing secondary processors. Legislation that created the WPCC will sunset July 1, 1993, and new legislation is being drafted to create a semi-private non-profit organization to succeed the WPCC.

WPCC has a close relationship with the private sector. Its seven member board of directors is made up of owners or managers of secondary wood products manufacturing firms. The board is working toward establishing programs that directly benefit that industry. As a state agency, the WPCC also has a close relationship with state government and coordinates with public and private organizations to avoid duplication.

**World Forestry Center,  
Oregon**

Contact: Pete Kent  
Address: 4033 S.W. Canyon Rd.  
Portland, OR 97221  
Phone: (503) 228-1367  
Fax: (503) 228-3624

The World Forestry Center, a nonprofit corporation, promotes the establishment, protection, and management of forest resources through research, education, and dissemination of forestry information. It has a 45-member Board of Directors comprised of representatives from private companies in countries including the United States, China, Korea, Japan, Chile, Mexico, Norway, Australia, Indonesia, Russia, Canada, and Germany. The organization is self supporting through admission fees; fees for seminars, programs, events, conferences; publication subscription; private and corporate contributions; and other sources.

The World Forest Institute was created in 1988 as a branch of the World Forestry Center to serve as a worldwide clearinghouse for forest information. Since it was created, it has served clients worldwide in providing accurate and timely information on a wide variety of forestry and forest products-related questions. The institute also sponsors an international internship program, hosts conferences on global forestry topics, and assists world organizations with technical communications and global distribution of forest information.

## Appendix IV—British Columbia, Canada

### Cooperative Industrial & Marketing Development Program (CIMDP), British Columbia

Contact: Bob Holm  
Address: B.C. Wood Specialties Group  
Suite 1200, 555 Burrard St.  
Vancouver, BC. V7X 1S7  
Phone: (604) 684-4126  
Fax: (604) 684-0216

This program seeks to maintain and expand international market opportunities for value-added specialty wood products. B.C. companies involved in the secondary manufacturing of solid wood products that are members of the B.C. Wood Specialties Group are eligible to participate. Principally, the program encourages industry growth by improving the quality and timeliness of market and technical information, providing advice, and encouraging better utilization of resources in the manufacturing of products. International and domestic market development, education and training activities are delivered on a cost shared basis with member companies and include the areas of: advertising, trade shows, literature/publicity, market research, product knowledge courses, hands-on, in-plant training and missions to the marketplace. Funding for this program is 40% federal, 40% provincial and 20% industry.

### Industry and Trade British Columbia

Contact: Bill Wilson  
Address: Canadian Forest Service  
Natural Resources Canada  
506 West Burnside Rd.  
Victoria, B.C. V8Z 1M5  
Phone: 604-363-0721  
Fax: (604) 363-0797

Increasing the economic and social value of B.C.'s forests is the goal of this program. To accomplish this, projects are initiated with the aim of providing the forest industry with product and market information. That is, an effort is made to provide timely information on global markets, market opportunities, and on the structure and performance of the B.C. forest sector. Through assessing innovative technologies and products and developing market opportunities, the program assists in the development of secondary and tertiary forestry elements. It also assists in the commercialization and marketing of technologies and products.

Cooperative partnerships from industry and public agencies are eligible for the program, and financial support is available to cost-share projects.



## **Small-Scale Forestry**

### British Columbia

Contact: Mark Atherton  
Address: Canadian Forest Service  
Natural Resources Canada  
506 West Burnside Rd.  
Victoria, BC. V8Z 1M5  
Phone: 604-363-0705  
Fax: (604) 363-0797

Small-Scale Forestry provides funding and forestry advice to B.C.'s small-scale woodland owners by supporting improved planning and sound management practices on these woodlands. Specifically, this program is designed for anyone who owns a minimum of 10 contiguous hectares (25 acres) of productive or potentially productive forest land. Participants in the program are drawn from both the public and private sector. Private landowners include individuals, families, partnerships, societies and small corporations; the public sector is comprised of cities, municipalities, regional districts, water boards, universities and colleges, and various federal departments.

As for the means of assistance, FRDA II, through Forestry Canada's implementation, will contribute up to 90 per cent of the eligible costs for activities carried out on the woodland, up to a maximum of \$50,000. The landowner must contribute at least 10 per cent. This contribution may be in the form of cash, labour, equipment or other valid services but must be real and measurable. In addition, local civic governments, universities or colleges or federal departments under the Small-Scale Forestry Program may receive more than \$50,000 over the term of the Agreement.

## **Small Business Forest Enterprise Program**

### British Columbia

Contact: Bob Harding  
Address: Timber Harvesting Branch  
B.C.. Ministry of Forests  
1450 Government St.  
Victoria, BC. V8W 3E7  
Phone: 604-387-8300  
Fax: (604)387-3773

Assistance to participants in this program is in the form of access to timber. The objectives of this program fall into the spheres of opportunities, diversification and employment, competition and profit, and forest management. First, the program provides opportunities to individuals and firms in the forest industry to acquire timber for their operations and to enter the industry and establish new businesses. Secondly, the program focuses on selling timber to promote and stimulate the production of specialty and higher-value forest products, hopefully generating increased employment through these endeavors. In terms of competition and profit, timber is sold through a competitive process with the aim of ensuring that the most efficient firms are awarded timber sales and the prov-

ince receives a fair return for the forest resource. Finally, the program strives to demonstrate and encourage sound, integrated forest management throughout the province.

An individual who is at least 19 years old or a corporation registered in B.C. may register in the program as long as they meet the Small Business Forest Enterprise Regulation requirements. The cost of registration is \$250

## **Woodlot License Program**

### British Columbia

Contact: Russ Cozens  
Address: Timber Harvesting Branch  
B.C. Ministry of Forests  
3rd Fl., 1450 Government St.  
Victoria, BC. V8W 3E7  
Phone: 604-387-8308  
Fax: (604) 387-3773

The Woodlot License Program offers a conditional assignment of Crown land in exchange for licensee management. The purpose of this arrangement is to increase the amount of private forest lands under sustained yield management, to improve the productivity of small Crown and private forest land parcels, and to increase the opportunities for citizens to be directly involved in small-scale forest management operations.

Canadian residents who are at least nineteen years old, societies, First Nations bands or councils, or Canadian corporations may apply for this program. However, no applicant can own or control a corporation that owns a timber-processing facility and no applicant can hold another woodlot license.

## **British Columbia Trade Showcase**

### British Columbia

Contact: Petrisha Rise  
Address: B.C.. Trade Showcase  
B.C.. Trade Development Corporation  
601 West Cordova St.  
Vancouver, BC. V6B 1G1  
Phone: 604-775-0374  
BC Toll Free 1-800-972-2255

The British Columbia Trade Showcase assists export-ready B.C. manufacturers and service companies to promote their products to foreign markets. This is achieved via a permanent trade show located in downtown Vancouver that allows companies to both display their products and conduct business negotiations. Participating companies pay the costs of constructing their own exhibits and a yearly rental fee in exchange for this promotion opportunity.

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# Appendix V—International

## Denmark

### Danish Technological Institute

Aarhus, Denmark

The Danish Technological Institute (DTI), based in Taastrup in the Copenhagen area and Aarhus on the Jutland Peninsula, is a national institute for applied technology development. DTI is a participant in a national government program that emphasizes business network development. It is funded through public and private sources. It started out as a training institution, but over time that function has been largely assumed by other institutions. DTI currently provides research services to Danish firms on a contract basis, as well as working on projects funded by the national government. It receives limited general appropriation funds to enable its staff to stay current in their technological fields.

DTI has a number of specialized industrial departments, including a wood products department at the Aarhus facility which is engaged in furniture design and process technology improvements. This department works closely with industrial associations and firms in Denmark to provide assistance in technology and product design that will aid Danish firms in developing new products and improving current ones.

In order to effectively market its services to Danish industry, DTI relies on direct marketing efforts of its professional staff, who function much like the staff of major U.S. technically oriented contract research institutions such as the Battelle Memorial Institute or SRI International. In addition, DTI works closely with Technology Information Centers (TICs) located in each of Denmark's 14 counties. TICs are funded separately by the Ministry of Industry with a mission to get to know each of the manufacturing firms in the counties through personal visits made by staff who are experienced industrial consultants. TIC staff provide several days of free consulting advice to firms on improving process technology. If additional assistance is required, the TIC staff recommends a consultant at DTI or elsewhere who can provide the service. TICs can recommend any source of additional consulting help they think a firm needs, and they are not compelled to recommend help from DTI.

### DMI — Danish Furniture Industry Association

The Danish Furniture Industry Association (DMI), provides marketing and export services to its members. They work closely with the government's network program to assist its member with international marketing, product development, and application of new technology.

## Storstrom County Technology Transfer Centers

Marienbergvej 80, DK-4760,  
Vordingborg, Denmark

Storstrom County in southeastern Denmark is a largely rural county of 250,000 people who live in five small cities as well as on farms. The local economy was originally based on sugar beets, food processing, and shipyards. When the shipyards closed down in the 1980s, the problem of economic development became a local as well as a national issue. The big companies in the area had no entrepreneurial tradition and found that reevaluating their business development strategies was necessary. The people in this county now believe that growth comes from the bottom, and the county is actively working on business development. A private, not-for-profit county small business development center is in charge of this effort to help existing and new enterprises prosper and grow. It works closely with the county labor market office and the adult vocational training centers in the county.

To improve the technology in small companies, the county has established three technology transfer centers and a fourth "green center" to diversify agriculture. They also have a national Technology Information Center, part of the national system administered by the Danish Technology Institute (DTI).

Storstrom County has identified some opportunities just around the corner from Denmark in the newly opened up countries of Eastern Europe. Denmark can use East European companies as suppliers and strive to raise the quality of their output. Internationalization is taken very seriously in Storstrom County, which is opening a county office in Gdansk, Poland to work on environmental and education issues. The County has links to Hungary, the Baltic states, and Germany, and is tied into the European Information Centers network which lists private sector bid opportunities and provides data on business advisors.

Various branches of Danish industry will be affected differently by the opening up of the internal market within the European Community at the end of 1992, and the small business development center in Storstrom County is developing programs to deal with both opportunities and problems the internal market will bring. Flexible production networks are one response to the internal market. The county small business development center brought together a group of ten furniture companies to look at marketing, technical development, and production issues. Six of these companies have formed a network. Their products are similar, and they want to go after large projects such as hotels jointly. This new network got a grant from the Danish Ministry of Industry.

### France

#### MIRCEB

A regional international trade initiative in France (MIRCEB) encourages small businesses to develop overseas business partnerships with foreign firms. MIRCEB is a

quasi-governmental corporation established and partly funded by the regional government of Brittany to promote international trade.

MIRCEB is directed by a board appointed from the business community with experience in international trade. In addition, a non-French director supervises its overseas offices in order to give it a more international perspective. MIRCEB charges dues to its members to help support its operations, one of which is encouraging joint ventures between Breton firms and their counterparts in other countries. By working to match French firms with similar firms in the U.S and other countries, MIRCEB helps build enthusiasm for exporting. MIRCEB operates several overseas offices, including three in the US. MIRCEB provides trained personnel and translation services for its members. This organization also gathers financial and other information about the business environment in other countries and helps French business managers make contacts and prepare for trips.

## *Italy*

### **ERVET**

In Italy, the government of Emilia Romagna has chartered ERVET, a quasi-public entity to undertake development activities. As part of its economic development activities it provides funds for service centers. ERVET has established a number of sector service centers to serve local industries. A substantial portion of the operating costs of ERVET service centers are paid for through membership dues. Although this organization was initiated by the government, the private sector is directly involved, and as a result the industry service centers are perceived more as private sector than public sector institutions. In addition to the service centers, ERVET has been involved in developing a curriculum to teach vocational students in the textile industry the programming of very large scale integrated circuits (VSLIC).

ERVET operates the Advanced Science and Technology Agency (ASTER) a multi-sectoral program that encourages and promotes the widespread use of advanced technology. ASTER works with a variety of industries to explore how new technologies can be employed in traditional industries. They work towards linking new process technology-makers to actual end-users and to adapt breakthroughs in technology to specific uses. Their role is to extend one technology to many applications.

### **SVEX**

ERVET also operates SVEX, an export promotion program. This organization was founded in partnership between ERVET, the Chamber of Commerce, and individual production industry associations. Italy's Emilia Romagna region has created this international trade program to promote international relationships between Emilia Romagna firms and firms in other countries. SVEX undertakes specific research, and individual projects; it is not aimed at building long-term relationships, and doesn't try to do everything or help every company. Its focus is to identify long-term opportunities to build international trade between local firms and potential foreign markets.

## CAMA

Another program in Emilia Romagna is CAMA, an association of wood products manufacturers and a member of the regional branch of the national artisans' confederation (CNA). Established in 1945, CAMA has 300 members. They operate a cooperative warehouse that orders, purchases and stores a diverse assortment of domestic and imported lumber and veneer. The warehouse accepts phone and facsimile orders, provides credit on materials, and delivers to firms in the local area and to some members outside the region. CAMA's warehouse not only provides volume discounts and ready access for its members, but also has its own specialized machinery to provide some custom pre-delivery shaping and cutting services.

## Sweden

### Snickericentral

Backgatan 7, 931 34 Skellefteå, Sweden

Snickericentral, in Skellefteå, Sweden is an example of a wood products flexible manufacturing network. Snickericentral, literally translated as Joinery Center, is a non-profit corporation formed by 17 companies in 1959. This group of competitive and complementary firms preferred to concentrate on the manufacturing process rather than on marketing, and decided to form a subsidiary to do all of their marketing. All member firms are located near Skellefteå and Umeå in northern Sweden. An additional motivation was pooling the high costs of marketing in Stockholm, 850 kilometers to the south, or points further away.

In 1990, the annual turnover of the group was about 320 million Swedish kroner (SEK), which is equivalent to approximately \$53 million US. Out of the total turnover of 320 million SEK, 70 million SEK is foreign exports. The group employs 700 people in total, 35 in the marketing subsidiary. To generate 320 million SEK in sales, Snickericentral bids on about 2 billion SEK of jobs each year. All profits generated by Snickericentral go back to the 16 owners, less expenses of the marketing organization.

The owner companies come out of a long tradition of joinery in northern Sweden. At present, the group manufactures doors, windows, institutional furniture, floors, and stairs. They have a high state of technology, including a Computer Aided Design (CAD) system at one company in Umeå. Earlier in their history they did a lot of residential construction work, but after the slow housing market of the early 1980s, they specialized in their present markets plus "combination products" which use the capabilities of more than one of the member companies. Examples of joint work include the interior of the Köln (Cologne), West Germany concert hall, the woodwork for a big sports dome in Stockholm, the airport counters at Göteborg (Gothenburg), and the interior and doors of the Sheraton hotel in Göteborg. None of these projects would have been possible for one of the member companies bidding in isolation due to the scale and range of components required. The Köln concert hall is their showpiece. The floors and walls are curved in

more than one dimension, and each seat has a metal support whose exact position had to be measured with laser equipment. Since their own CAD system was not adequate for the complexities of this job, they used CAD technology at the Trätekt Research Center in Skellefteå to design each piece of wood. The components were then manufactured in member companies, and installed in Köln.

## **Träinformation: Swedish Timber Council**

Skogens Hus, Box 4002, S-904 02 Umeå, Sweden

Träinformation is a Swedish sawmill association with a regional office in Umeå in northern Sweden, and others in the United Kingdom, Holland, France and Germany. A sister association in Finland participates in the foreign offices. The association does marketing and information transfer for its 400 members. Firms pay a portion of their revenue to the association, and the government provides some funding for specific projects. Firms also support projects over and above their membership fees if they are interested in the project.

The association was responsible for organizing the International Conference and Exhibition on Nordic Timber for Joinery and Furniture, Umeå with 500 participants 1990.

## **Sawmill Association of Southern Sweden (SABI)**

The Sawmill Association of Southern Sweden (SABI) is an industry association providing purchasing, marketing and financial services. A group of sawmill owners banded together to negotiate mill residue prices with the economically powerful pulp and paper mills. This group formed the cooperative SABI, then set up its own transportation and marketing arrangement to sell wood chips and other residues. The cooperative has subsequently branched into financial and insurance services for its members as well as export sales, and government affairs. They also negotiate the purchase price of saw timber with woodlot owners in the Jonkoping region. In 1988, SABI had a staff of 23 and annual revenues of more than 500 million SEK (\$65 million). Its 157 members pay an annual fee based on their production. Wholly-owned SABI subsidiaries provide financial services, export marketing and wood treatment.

## **Swedish National Industrial Development Agency (SIND)**

The Swedish National Industrial Development Agency, SIND, is an arm of government. Industrial design centers set up by SIND to serve the wood-working industry, have their budgets reviewed by the relevant industry associations and labor unions.



## Swedish Trade Council

Storgatan 19, S-11485 Stockholm, Sweden

## Swedish Trade Board (STB)

The Swedish Trade Council offers several programs to Swedish firms, including but not limited to wood products firms. Two of these programs are especially interesting. First, through a staff organized in seven departments along industrial lines, it promotes and markets the products of Swedish firms in foreign markets. Half of its staff of 400 are based in Stockholm; the remainder are located in major markets all over the world.

The second program is aimed at the novice exporter. The "export manager for hire" program offers the services of an experienced export manager on a part-time and/or temporary basis to develop an export market for a firm's products. Each manager typically works with three to five companies at a time, for a period of one to four years. The Trade Council's managers emphasize that the for-hire managers act as if they are working for the client companies, rather than for themselves as consultants or someone else with a profit motive that differs from that of the client company. At the same time, the flexibility of these part-time and temporary arrangements allows the firm to stay in control of the activity, and to adjust its spending on it accordingly. The expectation is that by the time the for-hire manager leaves a company, it will have a viable export market that it can manage itself.

## Expolaris International AB

Kanalgatan 73, 931 34 Skellefteå, Sweden

Expolaris is a combination of an industrial exposition permanently housed in downtown Skellefteå in northern Sweden, plus a marketing consultancy representing 250 member companies. They are a service organization for small scale industry and public organizations (e.g., a dental technology department of the local university) in northern Sweden. The goal is to help the member companies penetrate international markets. They are about to open an office in München, West Germany to exploit opportunities in the emerging European Community internal market. As a semi-governmental organization, they get government subsidies to put on conferences and distribute information about the region, as well as membership fees and other revenues from member companies. The organization employs 15 people, two of whom are in Umeå, a city about one hour's drive away.

Sawmills are a major industry in the area, and Expolaris is exploring its own sales channels for such mills to cut out intermediate dealers and brokers. That way Expolaris could gain more information about the customers to take back to the sawmills to help them improve their products.

## Appendix VI — Other

### New Mexico Home Catalog

Contact: Jerilou Hammett  
Address: 2405 Maclovía Lane  
Santa Fe, NM 87501  
Phone: (505) 471-4549

The New Mexico Home Catalog was formed by industry and industry observers to focus on secondary wood products. The organization was originally formed as the New Mexico Wood Products Association to organize the small, specialized wood products manufacturers in the state and to provide assistance in becoming more competitive. Over the last four years the organization has published several catalogs and newsletters. The catalogs feature firms that produce a variety of household furnishings including furniture and other wood products. Firms pay a fee to advertise and have photos of their wares featured in this catalog.

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