

RECOMMENDATIONS FOR ACTION
MAINE FUTURE FOREST ECONOMY PROJECT



**CURRENT CONDITIONS AND FACTORS INFLUENCING THE
FUTURE OF MAINE'S FOREST PRODUCTS INDUSTRY**

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PREPARED FOR:

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RECOMMENDATIONS FOR ACTION



Recommendations for Action

Maine's forest products industry is facing unprecedented challenges in today's global economy. Yet, many sectors of the Maine forest industry are producing as much or more product than recent historic averages. As an *industry*, forest products manufacturers have continued to invest, innovate, and produce. The opportunity to build upon the existing strength of Maine's forest industry cannot be lost.

The forest products industry, and individual sectors of the industry, face very real challenges today. These challenges did not appear overnight, and they will not be eliminated overnight. Only through a sustained and concentrated effort and building upon its existing strength can we expect a vibrant and dynamic forest products economy twenty years from today. Similarly, the forest products industry faces some challenges that come from well outside the boundaries of the state, and some that have arisen due to the forces of the global marketplace. Maine government and industries cannot use as an excuse the fact that some things are beyond our reach. Maine government and industry must focus efforts on addressing all of the things within their reach, *because* it can address these variables in an effort to compete globally.

The following recommendations are designed to provide a roadmap for both state government and the forest industry going forward. By addressing these challenges and seizing these opportunities, each of which is based upon findings earlier in this report, Maine will position itself as a place that welcomes forest industry, allows and invites innovation, and works collaboratively to address challenges as they arise.

Throughout this project, INRS received input from a wide variety of companies and individuals on what action steps might be taken to help improve the competitive position of forest product manufacturers in Maine. Many of these ideas are reflected here, others are not. INRS has strived to identify those recommendations that can be realistically implemented, do not pit one sector of the forest industry against another, and will have a meaningful impact. INRS is concerned that a long "laundry list" of recommendations would discourage, not encourage, action, and for that reason has been selective in the recommendations it puts forward.



Encourage Capital Investment

1. Improve Maine’s investment climate through prospective elimination of the personal property tax on business equipment.

The single most important thing that Maine can do to improve the long-term prospects of the state’s forest industry is encourage investment in existing and new facilities. Such investment can be used to improve the manufacturing process, produce new product lines, increase utilization of the raw material, and increase production. In today’s globally competitive environment, investment in new technology is the best, in many cases the only, way for commodity producers to compete with low-cost producers in other areas of the globe. Investment in technology often allows forest product manufacturers to mitigate the relatively high costs of labor and energy found in Maine, and improves utilization of raw material.

To encourage new investment, Maine’s current tax environment should become more conducive to capital investment. Maine taxes personal property used in manufacturing (i.e., machinery used to produce goods), a disincentive to purchasing and installing new capital equipment. To its credit, Maine does have a program that reimburses companies for most capital investment made since 1995, the Business Equipment Tax Refund (BETR). While this does provide some level of tax relief, a number of forest industry leaders and lenders have indicated that they have serious concerns about the stability of this program. When enacted, BETR helped encourage new capital investment in forest industries across the state. Since that time, there have been regular attempts to reduce, delay, or eliminate the program. These efforts have been largely unsuccessful, but had an unintended impact. Many investors now do not have full confidence that the BETR program will last the lifetime of their investments, and as such are reluctant to make major new investments.

As a clear and unmistakable signal to Maine forest industries (and other manufacturers) that Maine wants and welcomes new investment, the state should repeal the personal property tax on equipment. This should apply to all new manufacturing equipment. It is also critical to continue providing exemptions – either through a repeal of the tax or continued BETR payments – to equipment that currently enjoys participation in the BETR program to the extent already anticipated to honor previous commitments made.

There is no doubt that this will cause a loss of future tax revenue to municipalities, some of which must be made up from state sources. State and local officials must view this as an investment in the future economic health of the community, just as industries view the capital investment as a necessary part of their future viability and success. With a prospective repeal, municipalities would not lose money they are currently counting on, but would see healthier industries in their communities along with the many benefits that a healthy forest products industry provides. Maine has developed tax policy to support specific industries, such as banks and financial services companies, with great success²³⁰. Given the importance of forest products

²³⁰ Ewing Marion Kauffman Foundation. *Promoting and Supporting an Entrepreneurship -Based Economy in Maine*. December 20, 2002



industries – and all manufacturing – to Maine’s economy, the repeal of this tax makes sense for Maine’s future, and should be implemented as soon as possible.

Work Collaboratively to Create Predictability and Policy Stability

2. Improve the relationship between Maine’s forest products industry and state government and other stakeholders, and work toward a common goal of a vibrant, sustainable forest industry in Maine.

While difficult to measure, it is clear that the relationship between Maine’s forest industry, state government and other stakeholders can be improved. In the survey of Maine forest industries and conversations with industry leaders, it is apparent that there is a great divide between the forest industry and Maine state government. It is safe to say that this divide exists with other stakeholders as well. While this is not new, it is not healthy for any party’s interests. Maine’s forest products manufacturers are a significant part of the state’s economic and environmental future, and a strong relationship based upon mutual understanding benefits everyone.

It is not our intent to determine how this relationship has broken down over time. Focus on the past is not necessarily helpful here, and improving the relationship is far more important than studying how the relationship deteriorated. It is the responsibility of all parties to take steps to improve this relationship.

In our conversations with Maine forest industries, a number of factors were brought up²³¹:

- A belief that when matters dealing with forest industry are considered by state officials, individuals with little, no or even antagonistic relationships to forest products manufacturers are given more influence than is reasonable;
- Concerns that when the industry participated in some “stakeholder” processes, they were not fully listened to and did not have much, if any, influence on the outcome; and
- A belief that individuals employed in state government, particularly regulatory agencies, do not understand and appreciate the pressures that forest product manufacturers face, and view them as entities to be controlled – not businesses that can be viewed as partners.
- A belief that some in the environmental community use controversies over forestry issues to increase support for their organizations.

From a state government perspective, a number of state officials -- both appointed and career – express frustration with forest industry action over time. INRS heard a number of examples where state officials believed that forest industry had mislead them or “cried wolf” about the impact of certain regulations. Many of these state officials have lost confidence in the credibility of the forest products industry. Some environmental organizations (ENGOS) have even stronger feelings regarding the forest products industry. The ENGOS should recognize that a robust and diverse forest products industry is important not only to Maine's economy but to the health and

²³¹ This description places emphasis on the beliefs of the forest products industry because this is the group that was systematically interviewed as part of this project and who the state is seeking to influence in making investment decisions.



integrity of Maine's forests. ENGOs should open avenues of communication to work collaboratively with the forest products industry to resolve issues.

This project (Maine Future Forest Economy Project) and the Governor's Advisory Council on the Sustainability of the Forest Products Industry are important and meaningful steps to rationally consider how Maine can work with its forest industries to improve their economic future for the benefit of the companies and all Mainers. These projects are not enough. Concrete steps on the part of state government to help improve overall industry economic conditions will be a strong signal. Similarly, Maine forest industries would be well served to identify discrete, addressable issues that they have with state government, rather than issuing vague complaints of "over regulation", and be prepared to address issues of concern to the public before they get to the point where there is a widespread call for regulation.

Specific steps might include:

- a. Identifying and addressing public concerns as early as possible;
- b. Stakeholder agreement on a desirable outcome and reasonable timetables;
- c. Voluntary industry action to address issues of concern; and
- d. Regulatory patience while voluntary measures are developed, implemented and evaluated.

While recognizing that this is difficult to quantify, the importance of the state's forest products industry and Maine state government having an honest, working relationship cannot be overstated. A cultural change on the part of all parties is needed if the public interest is to be well served.

3. Provide for a high-level state staff member who has credibility and relationships with all state agencies and is responsible for coordination of efforts to address issues within the forest products manufacturing sector.

The current structure of Maine's state government leaves the economic development component of forest products manufacturing underserved. Through conversations with a number of forest products manufacturers, it has become clear that while both the Maine Forest Service (MFS) and the Department of Economic & Community Development (DECD) have some level of expertise and responsibility, neither has fully served this constituency. This is largely because funding for such a focused effort ended years ago.

It is INRS' observation that to some extent the MFS defers to DECD on economic development issues, and DECD defers to the MFS on forest industry issues. This has left many forest manufacturers believing that they are not receiving the attention that an industry the size of the forest products sector deserves. It should be noted that in the past year, DECD has spent significant time and resources working on several high-profile paper mill issues. However, a focus on particular mills is not the same as a focus on the industry, and all of its sectors.

Similarly, both the MFS and DECD have task forces or committees reviewing the forest products industry. This report has its roots in one of these efforts. These are laudable and productive efforts, but are not a substitute for a dedicated staff person who – day-to-day – tracks the forest



industry and works closely with it to understand and address challenges and seize upon opportunities.

INRS recommends that Maine state government invest in a new position of “Forest Products Manufacturing Specialist”, whose responsibilities would include:

- Tracking the global, national, regional and local markets that exist for Maine forest products, so that Maine can be aware of the changing market forces and anticipate how they might impact forest industries;
- Serve as an information source on forest products manufacturing within state government;
- Serve as a primary point of contact with state government for forest products manufacturers, help direct companies to state resources, and help state agencies identify companies that may be facing challenges;
- Help business-assistance program in Maine state government reach out to forest industries, and when appropriate help business assistance programs design products that meet the forest industry’s needs; and
- Provide outreach to Maine forest industries to let them know about changing market conditions, emerging opportunities, existing assistance programs, and other items of interest.

The home of this position must be carefully considered, as responsibilities would include both forest industry and economic development. A joint appointment to MFS and DECD, with the individual serving in both departments, is likely the best approach. Wherever this position is housed, great care must be taken to make certain that this position is viewed as professional and not political. The person in this position must have access to the leadership of all state agencies.

4. Conduct a collaborative effort spearheaded by the forest products industry, state government and the University of Maine to help Maine citizens, legislators, opinion leaders and others understand the current state of the forest products industry, the challenges it faces, and the actions that might best improve the long-term prospects of the industry.

Among opinion leaders and the general public in Maine, there is a lack of factual information on the state of and challenges facing forest products manufacturing in Maine. Clearly, the industry faces some very significant challenges, including the great increase in competition from around the globe. However, Maine’s forest industry has been resilient and creative in the face of this competition, and many individual firms are well positioned for the future.

Maine state government (led by the individual noted in recommendation #3), industry experts at the University of Maine and the state’s forest products manufacturers, most likely working through their trade association, could do a better job of helping others understand the entire situation in the forest products industry. An ongoing outreach campaign could include:



- An annual, publicly available “state of the industry” report card, highlighting successes, losses, opportunities and providing overall industry statistics;
- A concerted effort to help press outlets identify positive stories in the forest products industry. Maine media has not had trouble finding and covering high-profile negative stories in the forest industry (e.g. mill closures), but positive stories have not received a similar level of coverage;
- Information targeted at consumers regarding lands and mills certified under one of the forest certification programs in order to begin certified product consumer market pull from Maine consumers of forest products;
- A series of press or key contact tours at Maine forest product manufacturers to help legislators, state officials and business writers better understand the modern forest industry, its challenges and opportunities; and
- Regular and ongoing communication with opinion leaders, elected officials and state officials regarding the state of the industry, as differentiated from the state of a particular manufacturing facility.

The overall goal of such an effort is to create an educated understanding of the fact that Maine’s forest industry faces real challenges, but has been taking steps to remain competitive. The goal of this effort would not be to encourage any particular action, but to help make certain that Maine citizens and opinion leaders are best informed regarding the state of this critical component of Maine’s economy. More can be done to help the forest industry compete, and if citizens and policy makers understand this they are more likely to support taking such action. To the extent that Maine forest products industries can honestly project itself as an industry facing challenges *and* finding opportunities, they will be better positioned to work in partnership with others.

5. Create both the perception and reality of public policy consistency and predictability²³².

INRS’ survey of Maine forest product manufacturers, as well as conversations with industry members, registered frustration with what is viewed as an unstable and unpredictable policy environment. As with some other issues raised by members of the forest products industry, this is difficult to measure.

State officials and legislators counter that in the absence of action, forest industries would not take action to address the issues that raise public concern. Legislators and regulators view it as their responsibility to address situations that they see as problematic. They view this as their responsibility as public servants, and cannot be expected to change. The Maine public has been and is particularly involved in forestry issues, and this too is unlikely to change.

Given this obvious and necessary tension, the challenge is how to create a public policy environment where regulatory action is not necessary because of voluntary industry action to address a problem; in instances where regulation is necessary, it should be viewed by industry as measured, reasonable and predictable. This does not mean standards should be rolled back; but

²³² This is also a recommendation of the Legislative Task Force to Increase Primary and Secondary Forest Product Manufacturing, May 1999.



it does mean that regulations should be evaluated to determine if they meet the goal as simply as possible. Both forest industry and state government are responsible for finding a workable solution to this issue.

The perception of a stable policy climate is an important part of securing investment in Maine's forest products manufacturing facilities. In their interviews with bankers and investors as part of this project, *Pan Atlantic Consultants* identified a stable policy climate as a way to encourage greater investment in Maine facilities. Similarly, INRS spoke with firms who had delayed investment in facilities because of concerns about potential or pending policy development.

Concrete steps can be taken that will send a message that Maine is interested in a stable policy environment while not sacrificing environmental quality, worker safety, or other legitimate public concerns:

- Regulators can share with the forest industry a multi-year “roadmap” that shows issues of growing concerns, and provide the industry an opportunity to provide suggestions and reactions to this roadmap – a measured and constructive reaction from the industry to this roadmap will be critical to its success;
- Forest products manufacturers can identify issues of concern to the public or regulators and work to implement non-regulatory solutions;
- Before initiating voluntary actions, all parties can clearly state what they view as success in quantifiable terms;
- Forest industry can identify specific regulations (or parts of regulations) that are in its view overly burdensome or do not meet the desired outcome as efficiently as possible, and suggest ways that the desired outcome can be better reached;
- Regulators and forest industry can prepare credible analyses of the economic impact of new regulations or regulatory changes, so that the impact on industries in a globally competitive marketplace can be anticipated.

Common to all of these steps is an effort to clearly communicate issues of concerns and desired outcomes before there is a significant demand for regulatory action. All parties bear the responsibility of working together toward addressing issues in a collaborative manner.

By taking these steps, Maine government, forest product manufacturers and other stakeholders will help stabilize what too many forest product manufacturers and the investment community view as a policy environment full of risk and uncertainty.

Invest in Technology

6. Increase efforts to move work conducted at Maine's world-class research and development facilities to commercial application in Maine.

Maine has state-of-the-art research facilities, most notably the *Advanced Engineered Wood Composite (AEWC) Center* and the *Pulp & Paper Process Development Center* at the University of Maine in Orono (UMO). These institutions operate with a variety of funding, most of it for contract research.



Much of the work conducted at these facilities is proprietary, with specific tasks completed for clients. This is important work, and provides the research facilities with money to operate, expand, and employ a core staff. These facilities, particularly the AEW Center, also develop new technologies, processes or products that are not for specific clients. These represent opportunities to build new product lines or improve manufacturing processes for Maine industries.

To date, the AEW center has enjoyed some success in moving new developments to the marketplace. However, there is clearly potential for more. AEW has spun off technologies to Maine companies, including Correct Building Products and Engineered Materials of Maine. While EMM failed as a company, there is no indication that there was a problem with the technology.

In order to better move Maine-developed technologies to Maine companies, Maine should develop a mechanism to incent private sector individuals to connect technologies with companies in a position to commercialize them. This may require limited public funding to get off of the ground, but if private sector individuals were offered a fee – to be derived from licensing revenues – for locating companies to license AEW-developed technologies, the Center could have an incentive-driven sales force at very modest up-front cost. Conversely, these private sector individuals will bring to AEW companies interested in developing specific products to grow their existing businesses.

There may be an initial need to cover some up-front costs associated with developing product descriptions, preliminary business plans, and other marketing material. Once developed, the AEW Center could provide this to any and all consultants – both private and public sector – and offer a standard “finder’s fee” (likely as a percentage of licensing revenues) to companies or individuals who successfully bring them new customers. As the AEW Center would receive no revenue if the technology were not licensed, this does not represent a new cost and instead should be simply viewed as a business-style way to market technology.

To accelerate the commercialization of AEW-developed technologies, a complementary and important approach could be for the State to place one industrial development specialist within AEW who would (a) develop the business plans for new technologies, (b) help identify private and public sector consultants that can commercialize these technologies, and (c) identify and interact with Maine companies who would like new products developed to expand their business. This individual could serve the same function for other UMO-based forest products research.

7. Promote research, development and commercialization of bio-based products, particularly those that are compatible with Maine’s existing forest products manufacturing infrastructure.

A growing body of evidence suggests that a wide variety of products can be made from wood, including substitutes for a number of fuels and chemicals currently made from petroleum-based materials. While it is becoming apparent that these bio-products are likely feasible, much work



remains on how to extract these materials, and how to do so in a commercially viable manner. The economic feasibility of these products is more likely if oil prices increase.

Nationally, the paper industry has committed resources to researching bio-product development through the *Agenda 2020* program. In Maine, a number of institutions²³³ have received federal funding to move bio-product development forward. This is positive, and Maine industry and state officials should support efforts to identify, research and deploy bio-product manufacturing processes.

Given Maine’s existing paper industry, a logical place for state investment is in areas or products that will exist in connection with paper mills, not processes that will serve as competition. Research is ongoing in the Northeast to identify ways that bio-products can be extracted from wood products prior to pulping and from pulp mills sludge. These are obviously the type of products that – if economically viable – would enhance the position of Maine’s existing forest products manufacturing infrastructure.

Given the presence of world-class research facilities – including a pilot paper machine – at the University of Maine, the state is well positioned to become a research leader in this area. As bio-products move from the research phase to development, it may be necessary to identify small, nimble companies that are willing to take these products to the commercial level with an “over the fence” relationship with existing mills, where a bio-product developer has a contractual relationship with a pulp or paper mill, but operates an independent business.

While this is an area of potentially great promise, it must be considered that significant technical and economic barriers exist before a large number of bio-products make their way to the marketplace. It will take time, money, and a number of pilot projects to implement bio-product development in Maine. These are important, and should be supported. However, a healthy recognition that bio-products are not an immediate or entire panacea for Maine’s forest products manufacturing sector will serve all parties.

8. Expose Maine forest product manufacturers to the latest technologies

In today’s globally competitive environment, it is clear that continued investment in technology is one component of success for Maine forest product manufacturers. For larger Maine companies, and particularly for companies with facilities in multiple states or countries, finding technologies that improve productivity or other aspects of the business does not seem to be an issue. However, for smaller mills, or mills that don’t have staff or resources to spend on such research, identifying technologies that will improve their performance can be a challenge.

While vendors do visit potential clients in Maine, we must recognize that Maine does not have the mill concentration of the U.S. South or Pacific Northwest, and as such does not receive the same level of attention from vendors. Maine mills do benefit when vendors are visiting Eastern Canada, as they can easily reach customers and potential customers in Maine. Getting these

²³³ These institutions include the University of Maine, the River Valley Growth Council, and the Maine Technology Institute.



vendors -- and vendors of cutting-edge technologies not currently targeting Maine -- to connect with existing industries would provide an opportunity for smaller mills to learn about and make informed decisions about investment in new technologies.

There are a number of ways that this might be done, with minimal cost to either existing forest industries or the state:

- If an entrepreneurial network developed (see recommendation #11), this would provide a great opportunity to invite a vendor or vendors to some meetings, as vendors would save expenses by presenting to a large number of potential clients at one time;
- Using existing state personnel or an individual dedicated to forest products manufacturing (see recommendation #3), publish and electronically distribute a regular (perhaps quarterly) summary of new technologies available in the marketplace. These would *not* be advertisements, but would be brief summaries of new technologies available and contact information for companies to get more information;
- Request and make available programs from major forest industry trade shows, so that industries can identify potential equipment manufacturers and conduct follow-up research, and recognize the opportunities that attendance at these shows represents;

This is an area where State – most likely through the Maine Forest Service -- or industry group action must lead; it is not reasonable to expect that companies that spend resources of staff time and money to attend trade shows or otherwise research technology innovations will share this information with potential competitors.

9. If Maine pursues an aggressive renewable portfolio standard to encourage development of renewable energy, biomass power that meets certain emissions standards should be included.

As discussed in the section on biomass energy, renewable portfolio standards (RPS) are used in a number of states to encourage renewable energy, including biomass energy. RPSs are used to provide a market exclusive to renewable power generators, and have been successful in providing incentives for new investments in renewable energy facilities. RPSs are being used in a number of area -- including Massachusetts, Connecticut and Rhode Island in the New England region – to provide meaningful, market-based incentives to renewable energy generators and encourage biomass energy facilities to address emissions issues. Some Maine biomass facilities that are investing in their operations are now able to participate in these regional markets.

RPS provide a number of public benefits, including incentives for low emission electricity, funding for new or existing renewable energy producers to use the latest technology, and fuel diversification that can have a stabilizing impact on electricity prices.

The continued operation – at some level – of biomass energy facilities is important to the forest products industry. They provide an important market for low-grade wood and a critical disposal option for sawmill residue, and have become an important part of Maine’s integrated forest products cluster. At the same time, it must be noted that effective RPSs, by their very nature,



create a price premium for renewable power, which is passed on to customers. The amount of the price premium, and its duration, would depend largely upon the design of the RPS and the marketplace reaction to it.

If Maine elects to pursue a new RPS, it should include biomass power. If a high-value tier is established, Maine should adopt an emissions-based standard for biomass power similar to Connecticut's, that encourages existing biomass electricity facilities to invest in new combustion or emissions control technology. This would provide an opportunity for new or existing biomass facilities that met a strict emissions standard (the Connecticut biomass standard for participation in the Class 1 RPS is 0.075 pounds of NO_x per MMBtu) and compete with other renewables, presumably wind power, landfill gas, solar, wave and perhaps some types of hydroelectric generation.

Inclusion of biomass in this standard has multiple benefits. This provides an incentive for new or existing biomass, and allows a continued market for both low-grade wood and sawmill residue. Equally important, it potentially increases the available supply of power that can potentially participate in an RPS, and over time will drive down the cost of compliance with RPS regulations. This is important for all ratepayers, including forest industries, as the larger the available supply, the lower the cost of compliance.

Similarly, if Maine adopts an aggressive RPS, provisions should be made to make certain that Maine facilities that self-generate power and meet the prevailing emissions (or other) standard(s) are allowed to participate in the RPS and enjoy the same financial incentives.

Develop Entrepreneurial Talent in the Industry

10. Form a public – private partnership to encourage shared training, creative thinking, business development and improved operations management for sawmills and wood product manufacturers.

A fundamental need in any manufacturing industry is qualified labor. In our survey of forest products manufacturers, a number expressed difficulty finding skilled employees, both today and in the future. On further discussion with industry leaders, many expressed frustration finding basic labor, and indicated that if they could offer better pay this issue would likely correct itself. INRS believes that recommendations that address other costs associated with forest product manufacturing are the best way to address this issue. Similarly, industry leaders indicated that they had particular, specialized needs – for example an individual that can operate a machine used in only one or two New England facilities – but indicated that on-the-job or vendor-sponsored training was the best way to address these needs.

The one area where a number of industry leaders expressed real concern about the future of Maine's forest products industry – particularly for sawmills and wood product manufacturers – is in the business leadership skills of the “next generation”. Many in the industry do not see a pool of young individuals with the creativity, training, experience and drive necessary to make forest products manufacturing a thriving industry going forward. There are certainly exceptions to this



observation, but INRS heard the concern frequently enough that we feel the need to address the issue.

INRS proposes that Maine, with the cooperation of other New England states if possible, develop a *Wood Products Institute*, where individuals involved in or studying to be involved in the manufacturing side of the forest products industry could receive high-level continuing education. This would *not* be a college curriculum, but an on-going series of continuing education opportunities that would address everything from mill management, yield improvement and wood-buying strategies to funding opportunities and global market dynamics. The curriculum could continually evolve to meet the needs of participants, and would be best presented in small modules that working professionals could participate in. While aimed at those already in the industry, making this opportunity available to students studying forestry or engineering would provide great long-term benefits to the industry.

In order to get off of the ground, this *Wood Products Institute* would need to have funding and staffing secured largely with public funds. Industry participation in the development of the preliminary curriculum would be necessary to assure that the program met their needs for participation, and industry funding could be expected through tuition payments and eventually donations.

The administrative location of this entity should be carefully considered, with a preference toward institutions that have an educational mission. The University of Maine may be the best positioned to host such an effort because they have existing staff and facilities and a strong entrepreneurial program; other likely possibilities include the community college system, forest industry trade associations, the regional North East State Foresters Association, or quasi-state agencies such as the Manufacturing Extension Partnership or the Maine Technology Institute.

11. Forest product manufacturers or industry sectors should work together to develop entrepreneurial networks, share information, and learn about emerging opportunities.

Many people from the forest products industry (both large and small companies) we spoke to as part of this research indicated that they seek information on a wide variety of topics, including anticipated changes in the marketplace, programs available to assist Maine industries, marketing of Maine forest products, and opportunities in the developing renewable energy marketplace.

It appears that there is an opportunity for Maine forest industries to create a forum – either within or external to existing trade associations – that could bring this information to industry leaders. If a forum like this is to start, it must come from within the industry, and it must meet the needs identified by Maine forest industries²³⁴. It should *not* seek to replicate or replace the existing advocacy function played by Maine’s forest industry trade associations, but should instead focus on the non-advocacy needs of forest industries that are best developed through information sharing and network development.

²³⁴ It should be noted that Maine forest industries have some of this in place currently, including programs by trade associations or university foundations. However, these programs have clearly not fully met the needs of Maine forest industries, and may benefit by advertising to and welcoming attendance by those outside the membership of the organization.



A good example of such an organization in Maine is the Environment & Energy Technology Council of Maine (E2 Tech Council). This organization is focused on the “creation of a communication, networking and information infrastructure that creates business development opportunities, provides technical assistance and increases knowledge regarding innovation.” Some Maine forest industries may benefit from participation in this organization or some of its events²³⁵, and this organization may serve as a model for Maine product manufacturers seeking to learn about and share new ideas.

It must be noted that such a forum, like all trade groups, must be careful not to engage in any activity that would violate anti-trust laws. This includes any activities that would have potential competitors directly address or discuss prices (including bids), costs, production capacities, credit standards, marketing strategies, market shares, customer or supplier classification, sales territories, sales policies, or any other matters covered by State or Federal antitrust laws.

The sharing of success stories is also a critical part of developing an entrepreneurial culture, where firms publicly highlight their successful adoption of new ideas and business practices. This practice runs largely counter to the existing culture of Maine’s forest industry, where innovations are kept close to the vest, and information sharing is often discouraged. Maine industries should work to identify what success stories can be shared, and find ways to do so. This has a number of benefits, including idea sharing within the industry and building of public confidence in the creative aspects of Maine’s forest industry.

12. Develop a one-day annual meeting and trade show for micro-businesses engaged in forest product manufacturing.

Maine has a significant number of micro-businesses (fewer than ten employees) engaged in forest products manufacturing, and there is opportunity for this sub-sector to grow. The survey of micro-businesses showed that the concerns of this sector are quite similar to concerns of larger businesses. Therefore, many of the recommendations contained in this report will benefit Maine micro-businesses.

However, it is clear that micro-businesses face challenges in ways that larger businesses do not. Often a micro-business has one individual that is responsible for all aspects of the operation – production, accounting, marketing, product development, inventory management, and all other aspects of the operation. Many of these firms start as second jobs or retirement careers, grow out of hobbies, or are the product of a desire to be one’s own boss. All too often, these businesses lack a sound business and financial plan, an area for improvement.

The State of Maine, working with private sector partners, should initiate an annual conference to address issues important to forest industry micro-businesses in Maine. A one-day workshop that offered opportunities to learn about success stories, issues such as marketing or tax law, and connected micro-businesses to existing business assistance programs would provide these

²³⁵ It should be noted that most E2 Tech Council Events are based in Portland, and as such may not be readily accessible to many forest product manufacturers.



entrepreneurs an opportunity to learn about growing their business, either in number of employees or volume of business.

Because a comprehensive association that represents micro-businesses in Maine does not currently exist, the state would need to initiate action to make this event a reality. However, existing private-sector partners such as Maine WoodNet and the Maine Wood Products Association should be involved in the planning and implementation of the conference; the goal should be to hand the annual event over to the private sector as quickly as is practical. One outcome of such an event may be the beginning of an association that works on issues critical to Maine's forest-based micro-businesses.

In scheduling such an event, organizers should take care to recognize that time away from a business is costly for small operations, and strive to have a meaningful event that considers the work schedule of many micro-businesses. A weekend day during a non-tourist season may be most appropriate.

Distinguish Maine Products in the Marketplace

13. Develop a marketing campaign that highlights the environmental and other benefits of Maine forest products, and use this to help distinguish Maine products in a global marketplace.

Maine and its forest products manufacturers should seek to leverage the state's position as an environmental leader to market the state's forest products. Maine is currently well positioned to use its position as a leader in forest certification to brand Maine forest products and distinguish them in the eyes of consumers.

The Maine Forest Service has taken the lead on this and should continue working with its partners. Efforts should be made, both through the state budget and grant sources, to continue the staffing and momentum of this effort.

Maine has made a decision to aggressively pursue forest certification, with a goal of certifying 10 million acres by the end of 2007. This is laudable, and can be best realized in conjunction with a campaign that promotes consumer recognition of this effort. By seeking to develop customer demand, Maine can help support and provide incentives to forest landowners. At the same time, Maine can build an identity for Maine forest products that builds upon the perception of Maine products as environmentally superior.

This will require a multi-tiered approach, recognizing that Maine forest products go to a variety of customers:

- For consumer-ready products such as furniture, flooring and some turned products, the *Maine Made* program already exists, and is popular with many forest product manufacturers. As this is an existing and accepted program, it should not be replaced. However, it may be appropriate to add a component specific to forest products that



educates consumers about the quality of forest management in Maine and the benefits of using Maine-manufactured wood products;

- For industrial products, such as lumber, Maine can emphasize both the physical characteristics of Maine forest products as well as the environmental aspects. Because industrial products are not generally sold to the final consumer, the opportunity to leverage the “story” behind Maine forest products is less than for consumer-ready products, and should be only a part of the focus;
- For paper, a small but growing number of major consumers are considering the environmental attributes as one criterion they consider when make purchasing decisions. Maine has been a leader in capturing and promoting this opportunity, and efforts should be continued.

Because the bulk of Maine’s forest products are sold as commodities, it is unrealistic to develop a campaign that is wholly “final consumer” focused. *Maine Made* targets the final consumer, and does so well. Instead of developing a marketing program to replace this, Maine state government and forest product manufacturers should develop a compatible program that emphasizes the responsible management of Maine forests as well as the quality of the product and the “story” behind them²³⁶. While individual firms may wish to pursue marketing tied to specific certification programs, any Maine program should instead promote certification as one piece of the benefits of Maine forest products.

As progress is made on this recommendation, Maine may wish to work with others in the region, particularly the Northern Forest states of New Hampshire, Vermont and New York on a regional initiative. Given Maine’s leadership role in certification, this should be carefully considered, but there are examples of very successful regional branding campaigns²³⁷ that Maine may wish to consider.

Once a branding and marketing campaign is developed, both the state and the industry must be willing to promote it in global markets through advertising, trade show presence, web presence, use on products and other forms.

Improve the Ability of Maine Forest Product Manufacturers to Compete

14. Improve the connections of existing state business assistance and business development programs to forest product manufacturers, and have the forest industry evaluate existing programs and offer suggestions on how existing programs might better meet the needs of forest product manufacturers.²³⁸

Maine has a number of state, quasi-state and state-funded programs that are available to businesses. These programs cover a wide variety of areas, and include energy conservation,

²³⁶ Examples of what may be the “story” of Maine forest products include the quality of its workers, a Yankee ethic, tradition and longevity in the industry, and forests that provide a variety of public benefits.

²³⁷ For example, the Appalachian Hardwood Council and the Southern Pine Council’s regional promotional efforts.

²³⁸ This is similar to a recommendation of the Legislative Task Force to Increase Primary and Secondary Forest Product Manufacturing, May 1999.



business management assistance, entrepreneurial development, and funding for technology deployment.

As a whole, these programs appear to be poorly connected to Maine’s forest product manufacturers. In a survey of industry members, *at least* seventy percent of respondents did not know of, or had only heard of, a sampling of four Maine programs. While this was only a sampling of some of the opportunities available to Maine forest industries, there is no reason to believe that other programs have higher recognition. Similarly, most of the forest industries surveyed did not know if these programs met their needs.

It is clear that existing programs are not as well connected to Maine’s forest industries as they could be. Given the wide array of opportunities and services available to Maine forest industries, this connection should be strengthened. This is the responsibility of both state programs and the forest industry.

State programs should work together to host a series of “opportunity fairs” around the state, where forest products companies (and perhaps others) are invited to learn about existing programs, receive information on how to participate, and develop contacts. It will take a concerted effort to get forest industries to attend such an event. For this reason, travel distance should be minimized by hosting a series of similar events around the state, and organizers should partner with trade associations in order to make these events as well attended as possible.

Forest product manufacturers, acting individually or through trade associations²³⁹, should review existing business assistance programs and – within the mission and funding of each program – offer clear suggestions on how products might better meet the needs of existing and new forest products companies.

It is likely that one of the reasons that business assistance programs are not well known to forest products companies is that there is a large array of such opportunities, and many businesses do not have the time or staff to search out these opportunities. Forest industry associations, acting in partnership with the state, would do their members a significant service by putting together a *brief* summary of programs available and necessary contact information. Inviting state program staff to key association meetings on an ongoing basis could result in the program recognition needed to assure program acceptance by industry. Similarly, using newsletters or other communication vehicles to highlight programs could help connect forest product companies with existing programs.

15. Create a “Maine Manufacturing Competitiveness Fund”, a revolving fund that provides manufacturers with capital to make capital investments in energy efficiency.

Maine forest industries have made commitments to energy conservation – doing so only makes economic sense given the state’s and the region’s electricity costs. Energy conservation is a way to control energy costs, a significant input cost for many mills.

²³⁹ Depending upon the programs, this refers largely to the Maine Forest Products Council, the Maine Wood Products Association, and the Maine Pulp & Paper Association.



Through this project INRS has spoken to a number of forest product manufacturers that recognize that they can do more to conserve energy in their manufacturing process, and many know exactly what actions need to be taken to secure energy savings. However, energy conservation projects require capital, and compete directly with other capital needs. Because other investments may improve productivity and have shorter payback periods, worthy energy conservation projects often go unfunded. Maine does have a systems benefits charge-funded energy conservation program, *Efficiency Maine*, but a price cap of up to \$50,000 per company per year limits its effectiveness for major industrial projects.

If Maine manufacturers, including forest products companies, had access to a pool of money made available specifically for large energy conservation projects, many would pursue these activities, and improve their long-term competitive position.

Maine should develop a revolving fund earmarked specifically for energy conservation projects at Maine manufacturing sites, using the following method:

- Capitalize the fund through a one-time allocation from state appropriations or a bond issue;
- Have companies voluntarily identify energy conservation projects that they seek funding for, and require a modest match from the participating company;
- Structure the public money used in the project as a loan, with payments equivalent to the calculated electricity cost savings of the participant (this assures that participating facilities will be “revenue neutral” during their payback period);
- Make the interest rate equivalent to the consumer price index (so that the working value of the fund does not diminish over time);
- Consider the loan paid for once the cost of the energy conservation project is repaid, plus interest and administrative cost;
- Once the loan is paid, the participating company would be able to enjoy the energy costs savings and the public will benefit because of reduced electricity demand and associated emissions reductions;

This model provides a framework for Maine to encourage manufacturers to make greater investments in energy efficiency, benefiting both the manufacturer and the public. A one-time capital expenditure would be required, but following this the fund could be structured to run without new inputs of public money, thus providing ongoing benefits without ongoing costs.

16. Adopt a “Manufacturing Energy Policy”

Electricity costs are high for grid-based purchasers of electricity in Maine and throughout New England. Even for companies that self-generate electricity, this option represents a commitment of capital that could otherwise be put to other uses.

Electricity in Maine and New England is expensive when compared to other regions for several reasons: distance from coal, oil and natural gas reserves; historic decisions (“stranded costs”)



that have proved expensive and are being paid off through transmission and distribution charges; long, cold winters that require generating capacity not in constant use during other seasons; and other factors.

Some of these factors (such as “stranded costs”) will diminish over time; others are unlikely to change. Given this, it will take a commitment on the part of Maine government to help move Maine forest product manufacturers (and other manufacturers) closer to a U.S. average cost for industrial electricity.

Maine is a net exporter of goods; manufacturing is one way that the state earns its wealth. Given Maine’s role as an exporter, it is only logical that Maine should seek to make manufacturing costs as reasonable as possible. Maine should formally adopt a Manufacturing Energy Policy that includes the following:

1. An acknowledgement of the importance of energy costs to manufacturers;
2. A commitment on the part of the Public Utilities Commission to expressly consider the impact of all decisions on manufacturers;
3. A clear “right to self-generate”, including backup and other rates based upon probability of need.

A policy of this nature will not solve the issue of higher than average electricity rates for Maine manufacturers; yet it is a clear and tangible step in that direction. More than anything else, this would set the atmosphere where Maine industries know that that Maine recognizes the impact of electricity rates upon manufacturers and will carefully consider this issue when moving forward on any electric industry policies.

17. Continue to support the Maine Congressional Delegation’s effort to obtain a Congressional federal weight limit exemption for Maine’s currently non-exempt Interstate highways.

Weight restrictions on the interstate highway system in Maine have a significant impact on Maine forest product manufacturers. As noted in a recent report to the Maine Department of Transportation, Canada allows significantly higher truck weight limits than Maine²⁴⁰, and “U.S. companies competing against cross-border rivals in natural-resource-based industries, where profit margins are typically low find it difficult to compete against foreign competition that is able to use more efficient means of transportation.”²⁴¹

Currently, trucks weighing up to 100,000 pounds gross vehicle weight are allowed to travel on state roads and the Maine Turnpike System (I-95 from Kittery to Augusta); the remainder of the Interstate Highway System in Maine has a federal truck gross vehicle weight limit of 80,000 pounds. This causes trucks to have to take one of several options, none of them desirable:

²⁴⁰ In Canada, the largest allowable gross weight limit is 138,000 pounds.

²⁴¹ Wilbur Smith Associates, Woodrooffe and Associates, B.T. Harder, Inc. *Executive Summary: Study of Impacts Caused by Exempting Currently Non-Exempt Maine Interstate Highways From Federal Truck Weight Limits.* June 2004.



- Use roads that are not as fast or efficient as the Interstate Highway System, and travel through town centers, populated areas and business districts;
- Carry a lower weight in the truck, thus increasing transportation costs; or
- Violate the law and haul above-legal limits, in hopes of not getting caught.

Maine industries, the Maine Department of Transportation, the state’s congressional delegation and others have long sought federal legislation that would allow the higher state truck weight limit on currently non-exempt Maine Interstate highways. A recent independent analysis commissioned by the Maine Department of Transportation indicated that increasing the allowable weight limits on the currently non-exempt Maine Interstate Highway System to the state weight limit would increase safety, reduce highway maintenance costs, reduce bridge maintenance costs, and increase toll revenue. The analysis indicates that the “economic benefit to Maine resulting from exempting currently non-exempt interstate highways in Maine from federal truck weight limits is an estimated \$1.7 to \$2.3 million per year.”²⁴²

Maine forest industries should continue to press the federal government for weight limits of 100,000 pounds for Maine’s entire Interstate highway. This would be a significant benefit to Maine forest product manufacturers, and help reduce high freight costs associated with truck transportation.

In this same regard, Maine forest industries should identify cases where allowing short hauls of heavy material would make a significant economic difference to a manufacturer and ask for assistance from the Maine DOT. Examples would include manufacturing facilities located close to the Canadian border, near but not on Maine’s private road network, or where a supplier is located in close proximity to a mill. The Maine DOT has demonstrated that when the road network will allow heavy traffic for short distances on designated routes they are willing to work with companies.

18. Work with the Maine Department of Transportation to implement recommendations in their Integrated Freight Plan.

In 2002, the Maine Department of Transportation (MDOT) released an Integrated Freight Plan that addressed freight transportation issues for both trucking and rail. The final report offers near-term and long-term recommendations on a variety of issues important to forest products manufacturers in Maine, including:

- A process to work with industry to identify “quick-fix” projects;
- Development of infrastructure to encourage safe and efficient transportation of freight;
- Improvement of inter-modal connections in Maine;
- Recommendations to address needs at the state’s ports;
- Development of a strategy for public investment in rail infrastructure;
- Addressing both truck weight and trailer size restrictions currently in place; and

²⁴² Wilbur Smith Associates, Woodrooffe and Associates, B.T. Harder, Inc. *Executive Summary: Study of Impacts Caused by Exempting Currently Non-Exempt Maine Interstate Highways From Federal Truck Weight Limits.* June 2004.



- Investigating the use of internet-based load matching technologies to lower overall freight costs for Maine manufacturers.

MDOT is working to implement the recommendations of this plan, and will be reviewing progress in coming years. While not written specifically for Maine forest product manufacturers, this plan addresses a wide variety of issues important to Maine's forest industry. Rather than beginning a new process, Maine forest product manufacturers and state officials concerned about forest products manufacturing should become familiar with the existing Integrated Freight Plan, share thoughts with MDOT on how it might be modified to better fit the needs of forest product manufacturers, and work toward implementation of recommendations contained in this plan.

19. Continue state efforts to address challenges in Maine's business climate.

Maine has a business climate that many forest product manufacturers find challenging. The state recognizes this, and in some cases has taken concrete steps to address issues. A number of forest product manufacturers we spoke to commented on progress in two areas in particular:

- **Environmental Permitting** – Maine forest industries have long expressed frustration with the pace and cost of getting a new facility (or changes to an existing facility) permitted. However, through conversations with both regulators at the Department of Environmental Protection (DEP) and with recent permit applicants, it appears that this issue is being addressed. Both regulators and permit applicants report a process that is fair, predictable and efficient. INRS notes that this is an apparently recent development, and that many forest product manufacturers have described past experiences that did not appear to meet this standard. The forest products industry and DEP should monitor the speed and predictability of the permit process, and demand a high level of performance. In today's fast-paced business environment, the ability to quickly deploy new technologies is critical to business success; DEP is to be commended for recognizing this in recent actions.
- **Health Care** – The cost of health care is cited by many forest products manufacturers as an additional cost of doing business in Maine. Maine has an aging population and a widely distributed health care delivery system (due to the rural nature of the state); both of these issues tend to raise health care costs. Maine small businesses saw health care premiums rise 58% in the five-year period from 1996 and 2001²⁴³. Maine has created an innovative new approach to providing insurance *and* containing costs, Governor Baldacci's *Dirigo Health Program*. Depending upon how an industry currently provides health care, this impacts forest products manufacturers differently. Further, the program is just beginning to take enrollees as this report goes to press, so it is clearly too early to determine its success in addressing rising health care costs. However, *if* over the long term this program is successful in stabilizing health care costs for Maine businesses, it will be a benefit to Maine's forest industry.

²⁴³ <http://www.dirigohealth.maine.gov/> accessed October 3, 2004.



Other areas where progress has not been as visible are addressed elsewhere in these recommendations. However, when the state takes action to address challenges it is critical that Maine forest products manufacturers and state officials charged with development of the forest products industry recognize and encourage these efforts. Maine forest product manufacturers should monitor progress on these issues, encourage continued efforts, participate where appropriate, and offer suggestions for improvement when identified.



Recommendations from Elsewhere in the Maine Future Forest Economy Project

Throughout this report, a number of recommendations have been offered that may help position Maine's forest products industry for the future. Without detailing each recommendation, the following are brief summaries, along with information on where to reference them. Some of these recommendations are by parties who made independent recommendations as part of this project and are not necessarily supported by Innovative Natural Resource Solutions LLC.

Survey Responses

Many of the responses to the open-ended survey questions by Maine forest industries (pages 196 - 208) and micro-businesses (226 - 230) can be considered recommendations, and are not reprinted here due to length.

Role of Certification, page 261 - 269

20. State government in Maine needs to get very serious about its interest in being a certified product consuming market leader. Very specific certified product purchasing targets must be set and met beginning immediately.
21. Maine certified companies must pressure the certification programs (chiefly the Forest Stewardship Council and Sustainable Forestry Initiative) to invest in serious marketing of these programs and their brands to the consuming public.
22. Maine state government should develop its own marketing initiative to reach consumers in Maine and surrounding states and provinces, at least.
23. Maine state government should continue to work with entities involved in the certification of small acreage lands (family forest owners) but should act as facilitator only in order to keep the certification programs private and market driven.
24. The private sector needs to increase the number of mills that are certified under the various certification programs because in order to get certified forest products from the woods to the marketplace, certified mills are an essential pass-through point.

Branding Maine Forest Products, by *Dr. Robert Bush*, pages 283 - 290

25. Maintain the existing Maine Made program; maintain and possibly sharpen its focus on consumer goods.
26. Focus a new program on the segments of the solid wood industry that produce industrial goods.
27. Consider a regional branding/promotion strategy, rather than a state specific program.



28. Use environmental certification as a part of the brand image to be developed but do not align the program with a specific certification approach or program.
29. Brand development and image building should be facilitated with a promotion program that includes sales promotion (e.g., trade shows) publicity and advertising.

Maine Forest Resources, by *Maine Forest Service / Department of Conservation*, page 291 - 307

30. Continue to provide timely analysis and trend assessment:
 - The current USDA FIA annualized inventory, being implemented with the cooperation of the Maine Forest Service, must be maintained on its current 5-year cycle of panels
 - The Maine Forest Service needs continued support and funding for data collection, analysis, and timely reporting.
31. Provide tools for informed changes in the forest management of Maine’s extensive resources:
 - A new and enhanced timber supply analysis is needed using the complete set of 5-year inventory data. The time is ripe for the Maine Forest Service and other partners to initiate and complete a new and enhanced timber supply analysis. Tools now exist that allow more detailed modeling of species, products, and silvicultural practices and the production of an optimized result, which can also incorporate ecological considerations. This will require staff dedicated to running, developing, and maintaining these complex models.

Interviews with Investors and Financial Professionals by *Pan Atlantic Consultants*, Pages 308 - 342

32. Follow through with the Governor’s plan to eliminate personal property taxes on business equipment.
33. Review the concept of an additional tax credit for new technology development and sharing.
34. Develop a state-level business development action plan to provide industry support for each component of the forest products sector.
35. Support federal efforts that level the playing field with foreign competitors, including the use of countervailing tariffs and similar measures.
36. Develop an industry-sponsored awareness and brand positioning campaign to educate Maine citizens on the importance of the industry to the state’s economy – similar to the American Beef Producers’ “Beef. It’s What’s for Dinner.”
37. Ensure Maine state government support for actions that support market development and technology transfer for Maine forest product manufacturers.



38. Support, strengthen and develop industry training programs.

Driving Forces, Niches, and Private/Government Priority Actions, by *Lloyd C. Irland*, Pages 390 - 406

39. Recognize the maturity of the forest products sector.

40. Retain working forests.

41. Support – moral and real – for intensive management.

42. Encourage forest certification and green building efforts.

43. Encourage demand for certified and other “green” products through state purchasing policies.

44. Provide support for the wood energy sector.

The Outlook for Maine’s Forestry and Forest Products Sector – Trends and Possible Strategies for Positively Shaping the Future by *Jim L. Bowyer*, Pages 407 - 422

45. Develop a mass-customization business model.

46. Develop a network of bio-refineries.

47. Develop a global housing / innovation complex.

48. Position Maine as a source of environmentally preferable products.

49. Establish a U.S. / Canadian wood products enterprise zone.

