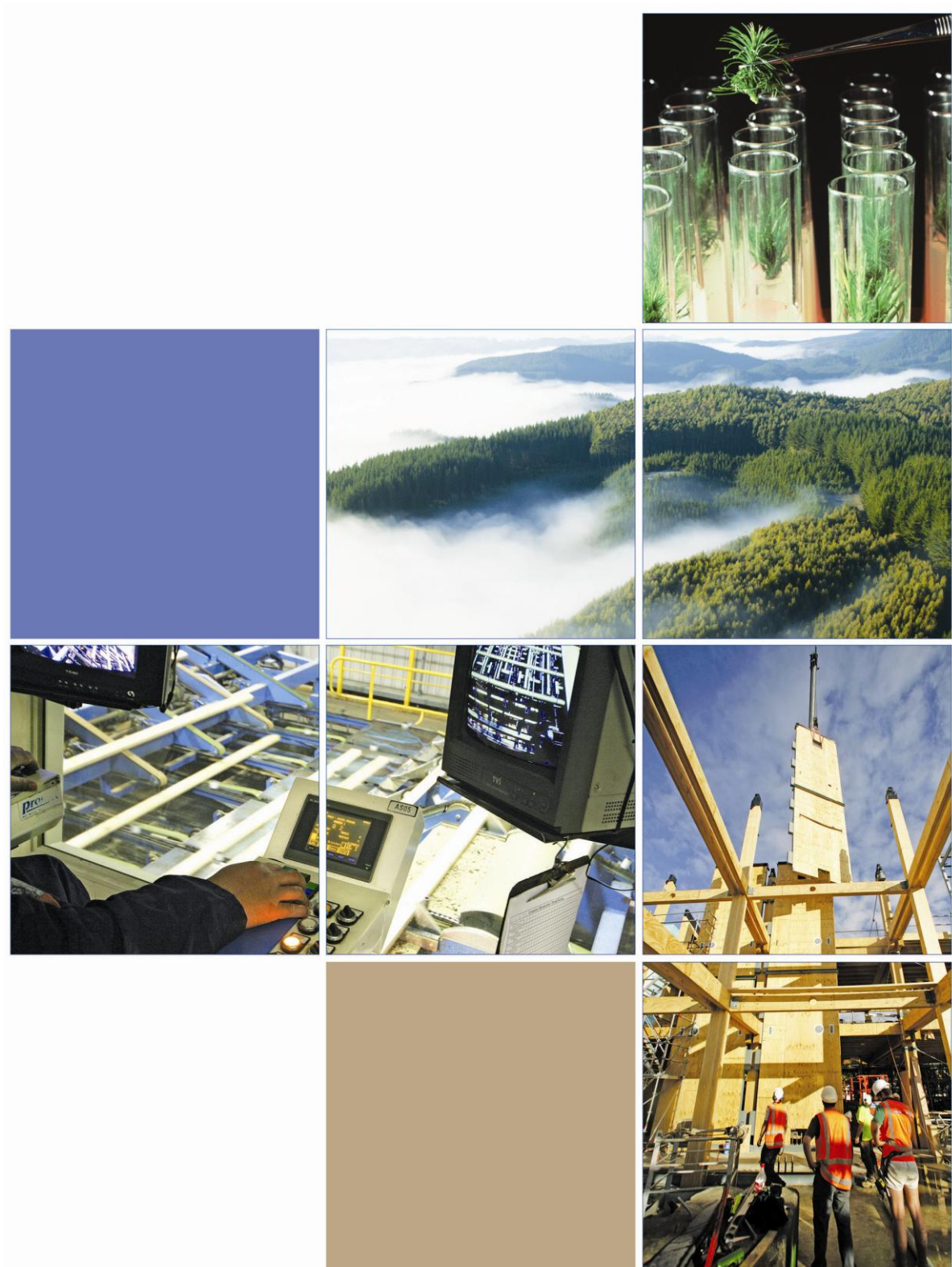


NEW ZEALAND FOREST AND WOOD PRODUCTS INDUSTRY STRATEGIC ACTION PLAN



New Zealand Forest and Wood Products Industry Strategic Action Plan

Version 1, March 2012

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Introduction

This Strategic Action Plan provides a pathway to shape a strong and profitable forest and wood products sector for the future. This will be achieved by working together to address the challenges and to make the most of opportunities. There are roles for everyone in this - including forest owners, wood processors and manufacturers, investors, employees and contractors, exporters, researchers, the Government and local authorities. All of these participants will gain significantly by helping to achieve the industry's vision of more than doubling its export earnings to \$12 billion by 2022. New Zealand society will also reap substantial rewards, such as environmental and social benefits, from a vibrant and progressive forest industry that extend far beyond pure economic gains.

This Strategic Action Plan has been developed through active engagement with forest and wood products industry participants. The starting point for this process was the June 2011 *Forest Industry Strategic Study*¹, based on interviews with senior industry leaders. The Study provided a strong mandate from industry leaders and the Woodco Board to develop a pan-industry strategy that positions the industry for the future.

The industry asked for a strategy with concise, actionable and time-phased deliverables. The vision for the industry needed to be aspirational, transformational and benefit the full spectrum of industry participants.

The Action Plan's timeframe is 10 years, but this is an ongoing process that will be regularly refreshed to ensure it remains valid and on-track.

¹ <http://www.woodco.org.nz/strategic-plans>

The New Zealand forest and wood products industry

Forest growing and wood processing contributes about 3% of New Zealand's annual income (GDP), employs around 31,800 people (about 1.4% of the labour force) and, after dairy and meat, is the nation's third-largest merchandise export earner.

Total export earnings from the industry for the year ended June 2011 were \$4.5 billion, 10% of all merchandise exports and up 17% on exports for the June 2010 year. About 70% of forest production was exported, either as logs or processed products. Export logs accounted for 47% of the total harvest volume for the year ended June 2011.

Australia, North Asia and the USA have remained New Zealand's major wood product markets over the past decade. The notable feature of the past few years has been the growing importance of the Chinese market and the increasing proportion of logs exported (largely driven by Chinese demand). In the years ending 30 June 2010 to 2011, log exports to China increased by 53% in value terms.

The Asian region will be an increasingly important market for the New Zealand forest and wood products industry. Asia and the Pacific will account for 60 percent of the world's population by 2020 - around 4.2 billion people. The highest population increases will be in Asia, resulting in significant changes in production, consumption and trade in forest products. Growth in wealth is changing values, perceptions and demand for goods and services. Industrial roundwood production in Asia will fall far short of consumption, increasing the dependence on imports.

The forest and wood products industry is capital intensive, with an overall investment estimated to be worth \$20.9 billion (December 2011).

New Zealand's planted forests are highly productive and well-managed, and have an estimated value of \$15 billion. Because of this substantial investment in planted forests over many decades, New Zealand has been able to protect its indigenous forests, be self-sufficient in wood products and develop a sizeable export industry.

The investment in wood processing, including sawmills, pulp and paper manufacturing, panel products and secondary manufacturing is estimated at \$5.0 billion (with an estimated replacement value of \$11.1 billion). There is also \$900 million invested in logging and log transport infrastructure. The capital deployed has increased labour productivity and creates jobs suited for a diverse work force, such as forest workers, machine operators, trades people, engineers, scientists and senior managers. The industry already provides significant

employment and investment in rural areas. Extensively automated high-value manufacturing operations of the future will provide more employment opportunities.

The existing planted forest estate has the potential to increase annual wood availability by 40% (about 10 million m³) leading into the 2020s. Depending on markets, industry decisions and Government policies, this increase in resource availability could be:

- Mostly exported as unprocessed logs;
- Partially processed in New Zealand – as rough sawn timber or wood chips;
- Used as an opportunity to attract increased investment in domestic wood processing facilities;
- Used for new industry activities and products;
- Used as an opportunity for New Zealand-based forestry businesses to play a greater role in international supply and distribution chains.

The forest and wood products industry has an outstanding story to tell. It is an industry that is based on wholly renewable resources, producing 100% of its products from plantation forests and recycled waste fibre; is New Zealand's largest biomaterial recycler and has a very low carbon footprint. In the future it will be substantially independent of non-renewable energy inputs apart from transport fuel (and even this could be sourced from New Zealand wood in the long run). The industry already provides greenhouse gas offsets, reducing New Zealand's overall carbon footprint.

The forest and wood products industry also partners with other key sectors, for example through providing products to the construction sector, supporting sustainable land use by farmers and providing packaging solutions for their high-value food products.

Vision for this Plan

In the ten years to 2022, annual export earnings will more than double to \$12 billion from a New Zealand forest and wood products industry that is:

- Delivering innovative wood-based solutions from a sustainable resource to meet our customers' needs.
- Manufacturing a range of high-value, fibre-based products, including new biochemical and biofuel value streams.
- Recognised as a world-leader in timber-engineered building solutions.
- Underpinned by forest growing as a valued and profitable land use.
- Recognised as a key New Zealand growth industry, delivering strong economic and environmental benefits.
- Connected and collaborative across the value chain, from end-product to seedling.
- Characterised by industry players that have pride in each other, with the sector regarded as a preferred career option for our brightest talent.

What is the size of the prize?



* Katz – *Proposed Export Revenue Targets for the Forest and Wood Products Industry Strategic Action Plan*, Alphametrik, 2012. Note: this report is draft and still subject to change.

Benefits to forest growers, wood processors and manufacturers and others

It is not a sensible or winning strategy to do nothing and just wait to make the best of what arises. Making forward-looking decisions on industry direction is more likely to give better long-term results for more participants.

Under a business-as-usual scenario over the next 10 years to 2022, an increasing proportion of the harvest will be exported as logs. With an additional 10 million cubic metres of logs available for harvest by 2022 (total of 35 million m³ annually), we could at best expect around a \$1.6 billion increase in export revenues, to a total of \$6.1 billion per annum. Solid wood processing capacity would continue to decline, with flow-on effects to high-value fibre manufacturing because of reduced availability of wood residues.

By implementing this Action Plan the industry will instead more than double its export revenues through expanding its high-value wood processing and manufacturing processes, developing new and innovative products and markets, better connecting with customers and providing consumer solutions.

Value from the \$12 billion of export earnings will flow through to all in the industry from higher profitability, reduced volatility, new and diverse markets, improved operating costs and a more business-friendly operating environment.

Specific benefits to **forest growers** are:

- Increased returns and reduced market risks and volatility, through having a diverse customer base and strong demand for onshore wood processing and new products (such as modified wood and biomaterials) that reposition radiata into high-value export markets.
- Creating additional revenue streams, for example through greater use of forest residues for bioenergy and biochemical products.
- Less exposure to the volatility of log shipping costs.
- Lower operating costs and protecting the industry's licence to operate (by making the regulatory and compliance regimes more efficient).
- Reduced boom and bust cycles, and a more stable and efficient workforce.
- Forestry recognised and incentivised as a sustainable and profitable land use, and New Zealand being regarded as a world-leader in sustainable forest management.
- More public recognition of the substantial environmental and community benefits provided by forests.

Specific benefits to **wood processors and manufacturers** are:

- Increased demand for wood products and market opportunities.
- An industry that competes more successfully against wood substitutes by developing innovative wood-based building solutions.
- More investment in wood processing.
- Enhanced market opportunities for all participants.
- Reduced operating costs through manufacturing efficiencies, higher recovery rates, and reduced compliance costs.
- Less price volatility, with lower reliance on commodity products and more focus on delivering customer solutions.
- Certainty of fibre supply to allow significant expansion in the manufacture of value-adding fibre products.
- Generating substantial new revenue streams from wood-based bioproducts.

The industry will deliver a dependable, higher-than-average return to **investors** in a stable environment. New Zealand as a nation is already ranked highly as an attractive investment environment. This is due to factors such as low levels of corruption², the ease of doing business, sound government processes and an independent judiciary, robust land tenure and property rights, high education standards, and sound environmental credentials. The forest and wood products industry can capitalise on these advantages and the benefits from this Action Plan to attract new investment.

The industry will be recognised as a progressive and significant contributor to New Zealand's economic and environmental wellbeing.

² New Zealand was ranked as the least corrupt country in 2011 (<http://cpi.transparency.org/cpi2011/results/>).

How it will work

The actions required to deliver the industry's vision for 2022 are grouped under themes in the tables that follow.

The benefits to the industry through delivering the objectives are provided in dollar values (in 2011 dollar terms). Associated with each action is an indicative timeframe and costing. Note that these budget figures are estimated annual costs and are subject to refinement following detailed scoping of the work involved with each action.

Many of the actions will be undertaken over shorter periods of time than covered by the Action Plan (that is, one- or two-year projects). However, with annual review of the Action Plan it is expected that new projects and initiatives will be added each year to replace completed projects. The total cost (at the end of the tables) should therefore be regarded as a realistic annual budget for pan-industry activities.

1. MARKETS AND PRODUCTS

Timber has largely held its market share for residential framing in New Zealand, but there is growing competition from alternatives such as steel. Timber construction of non-residential buildings is less common and is a significant growth opportunity. Future growth is likely to be in Asian countries, which have large populations and growing wealth and where there's opportunity to develop higher-value markets for New Zealand's wood products. China alone is forecasted to have a 150 million m³ wood fibre deficit by 2017. Examples include timber construction and packaging solutions. Australia has long been a key market for New Zealand's wood products. Australia has a large economy and growing population, is familiar with radiata pine and uses timber for construction in a similar manner to us. It is unable to meet its growing wood fibre needs, and New Zealand is well placed to meet this demand. However, we need to address increasing competition in this market from other countries.

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
1.1 Wood is the preferred construction and finishing product in New Zealand.	- New Zealand wood products represent a significant proportion of the Christchurch rebuild. - New Zealand wood products penetrate 25% of the non-residential construction sector by 2022. (Value \$300M/yr)³ - Maintain 94% market share for timber framing in residential construction. - Significantly grow wood's share in finishing products (e.g. mouldings, weatherboards, flooring). (Value \$60M/yr)	1.1.1 Develop a wood solutions strategy to address the Christchurch rebuild. 1.1.2 NZ Wood promotion strategy to drive customer demand. 1.1.3 Develop toolkits & training for engineers, architects and builders to promote and quantify the capabilities of new wooden products. 1.1.4 Develop a 'wood-first' proposition for government to consider mandated timber construction of government buildings.		\$800k

³ All values are provided in 2011 dollar terms.

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
1.2. New Zealand wood is the preferred construction and finishing product in Australia.	New Zealand wood products are used in 10% of the non-residential construction sector in Australia by 2022. (Value \$600M/yr)	1.2.1 Expand the NZ Wood programme into Australia and other target markets. 1.2.2 Develop a package for generic overseas marketing to promote NZ pine properties, innovation and sustainability credentials.		\$500k
1.3 Develop growth opportunities in key markets (Asia, India, US, Australia) across all wood product categories, based on processing more of the annual harvest.	6% growth per annum in export volumes by 2022. (Value \$6B/yr)	1.3.1 Determine where the key markets are for collaborative marketing efforts. 1.3.2 Explore business model options for successful collaboration. 1.3.3 Explore options for in-market showcasing, such as innovation centres and campaigns (evaluate Canada's success in China, and lessons from the previous New Zealand Wood Innovation Centre in China).		\$300k
	VALUE TO INDUSTRY: \$7B/yr		TOTAL COST	\$1600k/yr

2. HIGH-VALUE WOOD PROCESSING AND MANUFACTURING

Processing our log harvest into higher-value products provides employment and opportunities to develop new products, as well as delivering an essential supply of wood fibre to downstream manufacturers. The solid wood processing sector has experienced challenging conditions in recent years, partly as a result of factors that are beyond the industry's control, such as exchange rates and global economic conditions. However, there are several areas that the industry can work on to enhance productivity and attract new investment.

An additional 10 million m³ of logs per annum will be available for harvest from the early 2020's, presenting an opportunity to expand processing capacity and add value to this resource before exporting it. However, to compete effectively against overseas players requires creative thinking about new product and market opportunities.

For example, fully off-site manufactured building systems can transform how we use timber and deliver targeted solutions to customers along with substantial savings in construction time. Innovative flooring, window and cladding solutions could be water-repellent, treated with non-toxic chemicals and not require the regular treatments that conventional timber products do. Another opportunity is to manufacture value-adding fibre products, including both conventional and enhanced pulp and packaging products, with the latter providing new packaging solutions for our growing high-value food exports. This expanded fibre-based manufacturing sector will also incorporate new co-product value streams, in the form of bioenergy, biochemical and biofuel options.

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
2.1 Deliver more value from our existing capacity and resource.	10% per annum increase on 50% of the existing processing capacity, delivering an average of 2.5% in savings on operating costs by 2022. (Value \$70M/yr)	2.1.1 Facilitate access to Manufacturing Plus and Lean Manufacturing programmes. 2.1.2 Establish mechanisms to allow sharing of lessons/best practice, knowledge transfer, e.g. via learning hubs.	2013 onwards	\$in-kind

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
2.2 Transform the use of wood in building systems (off-site manufacture of new building systems, new wooden products, treatments, wood modification, etc).	- NZ-made, timber engineered construction technology is prominent in the rebuild of the Christchurch CBD. 10% of new houses built in New Zealand use fully fabricated off-site systems by 2022. (Value \$115M/yr – revenue & cost-savings)	2.2.1 Scoping study to identify barriers to uptake and transformation; recommend the pathway forward to achieve this. 2.2.2 Explore options for Primary Growth Partnership (PGP) funding. 2.2.3 Promotion to property owners and developers. 2.2.4 Training and education of architects, engineers, builders. 2.2.5 Research and development of new products, systems, and processes. 2.2.6 Implementation and uptake of technology. 2.2.7 Develop export markets, e.g. Australia.	December 2012	\$500k

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
2.3 Increase high-value fibre product manufacturing and integrate new co-product value streams - biochemical, biofuel and other bioenergy options.	• Increase kraft pulp capacity by 450,000 tpa by 2022. (Value \$450M/yr) • Biochemical co-products account for 20% of conventional pulp and paper product revenue by 2022. (Value \$400M/yr) • Increased use of bioenergy by 30% to provide heat and electricity in pulp and paper and wood processing plants by 2022 (270 MW of new thermal bioenergy and 30 MW of new electricity). (Reduced energy costs of ~\$45M/yr) • Implement one demonstration scale liquid biofuel plant at an existing processing site by 2022. (Value \$20M/yr)	2.3.1 Develop integrated scenario plans with the major forest owning and wood processing groups to identify the forecast fibre availability. 2.3.2 Integrate forest biomass residue collection into log harvest operations by reviewing and modifying present practices. 2.3.3 Pulp and paper companies identify co-product opportunities to be integrated into operations. 2.3.4 Monitor international developments around drop-in bio-diesel plants and develop a plant design and economic model suitable for New Zealand conditions and feedstock. 2.3.5 Develop an industry planning document, with involvement of and endorsement from regional councils and MED. 2.3.6 Multi-party PGP application to develop the most promising co-product and biochemical/biofuel opportunities.		Industry/partner funded
2.4 Develop new fibre-based packaging products to support New Zealand's growing high-value food exports.	• New fibre-based packaging solutions which reduce packaging costs, improve produce quality, enhance consumer experience etc. (Value \$140M/yr)	2.4.1 Identify new product lines and market opportunities. 2.4.2 Establish consortium. 2.4.3 Explore options for PGP funding.		Industry/partner funded
	VALUE TO INDUSTRY \$1.2B/yr		TOTAL COST	\$500k/yr

3. RESEARCH AND INNOVATION

Research and innovation is necessary for the industry to unlock its potential, overcome challenges and enhance international competitiveness. The industry must work with research providers to ensure that their work aligns with and supports its plans. The industry also needs to ensure adequate funding and effective delivery structures are in place to support its research and innovation priorities.

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
3.1 Research and innovation supports, connects and transforms high value manufacturing and forest productivity.	- Industry contribution to science funding is doubled from 2011 levels. - Industry's research priorities are reflected in CRI's Intermediate Outcomes (in the Statement of Corporate Intent). - Research outcomes are demonstrated through uptake and implementation at business level.	3.1.1 Develop a pan-industry Research & Innovation Plan to connect across the value chain and link to consumer needs.	June 2012	\$50k
		3.1.2 Ensure that science programmes align with the Research & Innovation Plan.	Ongoing	Industry/partner funded
		3.1.3 Develop programmes to drive science implementation for the industry's growth.	Dec 2012	\$100k
		3.1.4 Develop mechanisms to increase industry funding of research.	Dec 2012	
		3.1.5 Streamline research delivery structures (companies and consortia) to improve connectedness of research.		
TOTAL COST			TOTAL COST	\$150k/yr

4. OPERATING ENVIRONMENT

To ensure the best possible operating environment for the forest and wood products industry, there needs to be a systematic and coordinated approach to remove barriers, unnecessary costs and compliance requirements, and create an environment that will attract investment, encourage growth and retain talent. This includes working constructively with the Government. All parts of the value chain need to be successful for the forest and wood products industry to prosper. Security of supply is often cited as a barrier to investment in wood processors, and exploring innovative business models around supply agreements that are of mutual benefit to both forest owners and wood processors is an option. New Zealand is a small player in the global market, and our individual businesses are even smaller. Collaborative business models have been effective in New Zealand, as they enable groups of companies to achieve scale and compete in overseas markets.

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
4.1 Remove barriers to the industry's growth.	- Trade and non-trade tariffs in key markets are reduced. - Regulations and standards impacting the industry are streamlined to remove unnecessary compliance costs and allow expansion. - The New Zealand Government enacts legislation requiring all imported wood and wood products (including fibre) to be derived from sustainable and legal sources. - The forest industry's needs are incorporated into key infrastructure planning and investment by government.	4.1.1 Identify and remove trade barriers in target markets. 4.1.2 Reduce regulatory barriers, e.g. support the National Environmental Standard, review building codes and standards, streamline RMA, etc. 4.1.3 Work with Government to develop legality framework for imported products. 4.1.4 Improve efficiency of infrastructure, through engaging with government (local and central), Productivity Commission (e.g. around ports, shipping, rail, heavy vehicles and roading, electricity).		\$50k \$500k

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
4.2. Increase pan-industry cooperation and collaboration.	Report against a scorecard that measures success (e.g. implementation of innovative business models around supply agreements, number of collaborations).	4.2.1 Develop options for sustainable and mutually-beneficial wood supply agreements between growers and processors (and including small forest owners). 4.2.2 Facilitate collaborative business models that lead to industry cooperation (e.g. Bodyguard, Pinenz, India initiatives, etc).	Jan 2013	\$250k \$100k
4.3. Develop the industry's human capability	The industry attracts and retains talent, is an attractive career option (measured by enrolments in training & education, employee retention).	4.3.1 Sponsor and promote executive leadership development. 4.3.2 Promote the industry to attract talent and promote career pathways (e.g., a collaborative project between NZ Wood, FITEC, University of Canterbury, Waiairiki Institute of Technology).		\$100k \$200k
4.4. To be recognised by the Government as a major contributor to New Zealand's economic wellbeing and future growth.	The Government implements policies and programmes that enhance the operating environment for the industry.	4.4.1 Present the Action Plan to the, Minister for Primary Industries and Minister of Trade and Economic Development, and seek endorsement. 4.4.2 Woodco to report quarterly to the Minister for Primary Industries on progress with implementation of the Action Plan. 4.4.3 Promote the Action Plan to Government and its key agencies.		In-kind

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
4.5 Partner with the Government to achieve the Action Plan.	The vision of the Action plan is achieved.	4.5.1 Identify activities for the Government to address that will enhance the operating environment for the industry. 4.5.2 A senior MAF official is represented on the Action Plan implementation governance group.	June 2012 June 2012	In-kind
			TOTAL COST	\$1200k/yr

5. MAKING IT HAPPEN

Effective change will happen if sector participants support and drive this Plan, with funding and a structure to support delivery of desired outcomes. This Plan acknowledges the work already underway, but depends on the addition of pan-industry resources and action beyond the current capacity of industry associations.

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
5.1 The industry is resourced to deliver the goals of the Action Plan.	The vision and goals of the Action Plan are achieved.	5.1.1. Woodco launches the Action Plan at ForestWood 2012. 5.1.2. Woodco secures funding and resources to implement the Action Plan.	March 2012 June 2012	\$300k (incl. proj mgr salary) \$150k
5.2 A strong single voice representing the industry across all sectors.	Single representative structure is in place.	5.2.1 Independent review of industry association structures to achieve the single voice. 5.2.2 Establish the Woodco infrastructure.	December 2012 July 2013	\$100k \$100k
5.3 Communication to enhance cohesion within the industry; and to inform the public and Government of the contribution and importance of the industry to New Zealand.	The industry actively promotes itself and its successes, raising its profile (measured annually through media citations, etc).	5.3.1 NZ Wood develops a communication strategy. 5.3.2 NZ Wood communicates the industry's sustainability credentials. 5.3.3 Progress on delivery of the Action Plan is communicated to the industry by NZ Wood, along with an annual roadshow.	Jun 2012	See 5.1

Objective	Deliverable	Action	Timeframe	Estimated cost/yr
5.4 To ensure that investment and effort is concentrated into the areas that will deliver the greatest value and growth potential for the industry.	Detailed analysis that informs and guides collective effort and partnerships with investors, government, and other stakeholders.	5.4.1 A detailed economic and opportunities analysis is undertaken across the whole industry to identify highest value and growth avenues for the industry.	June 2012	\$300k
			TOTAL COST	\$950k/yr

TOTAL ANNUAL COST

\$4400k/yr

