



Scale & Expand.

FIRST SALES ORDER FROM
YASUHARA AND SUCCESSFUL STUMP
TRIALS TRIGGER DECISION TO
DOUBLE PRODUCTION TO 16,000 TPA

INVESTOR RESENTATION, JULY 2021

Strictly Private & Confidential



Disclaimer: forward looking statements

IMPORTANT: YOU MUST READ THE FOLLOWING BEFORE CONTINUING.

SUMMARY INFORMATION

This Investor Update (“IU”) has been prepared by Leaf Resources Limited (ACN 074 969 056) (the “Company”, “Leaf”). The following disclaimer applies to this document and any information provided regarding the information contained in this document (the “Information”). This IU contains summary information about the Company and its activities which is current as at the date of this presentation. The Information is of a general nature and does not purport to be complete nor does it contain all the information which a prospective investor should consider when making an investment decision in the Company or that would be required in a prospectus prepared in accordance with the requirements of the Corporations Act 2001 (Cth) (“Act”). The historical information in this presentation is, or is based upon, information that has been released to the Australian Securities Exchange (“ASX”). This IU should be read in conjunction with the Company’s other periodic and continuous disclosure announcements which are available at www.asx.com.au. In accepting this document, you agree to be bound by the following terms and conditions including any modifications to them.

NOT AN OFFER

This IU is for information purposes only and is not a prospectus, product disclosure statement or other offering document under Australian law (and will not be lodged with ASIC) or any other law. This IU is not an invitation or offer of securities for subscription, purchase or sale in any jurisdiction.

NOT INVESTMENT ADVICE

This IU does not constitute investment or financial product advice nor any recommendation to acquire Company shares. It is not intended to be used on the basis for making a financial decision, nor is it intended to constitute legal, tax, or accounting advice or opinion. Any references to, or explanations of, legislation, regulatory issues, benefits or any other legal commentary are indicative only, do not summarise all relevant issues and are not intended to be a full explanation of a particular matter. Before making an investment decision, prospective investors should consider the appropriateness of the information having regard to their own objectives, financial and tax situation and needs and seek legal and taxation advice appropriate to their jurisdiction. The Company is not licensed to provide financial product advice in respect of the Company shares. The IU has been prepared without considering your investment objectives, financial situation or particular needs. No reliance may be placed for any purpose whatsoever on the Information or on its accuracy or completeness.

FINANCIAL DATA

All dollar values are in Australian dollars (A\$), unless otherwise stated. Financial data is presented at actual foreign exchange rates, unless otherwise stated. A number of figures, amounts, percentages, estimates, calculations of value and fractions in this IU are subject to the effect of rounding. Accordingly, the actual calculations of these figures may differ from figures set out in this IU. Unless specifically indicated in this IU, the financial information contained in this IU has not been audited, examined or otherwise reviewed in accordance with Australian Accounting Standards.

Contents

01. Overview



Company Overview
Timeline
Market Opportunity

02. Products



Product Overview
Natural Rosin
Natural Terpene
Wood Pellets

03. Competitive Advantage



Process
ESG
Clean Chemicals
Adding Value to Forests
Sustainable Advantage
Existing Supply Comparison

04. Capital Raising for Expansion



Product and Expansion
Use of Funds
Production Step Change
Capital Structure

05. Corporate



Corporate Overview
Board

06. Appendix



Executive summary

Leaf has decided to double production to 16,000tpa of its natural rosin and terpenes products following the successful product testing and purchase order from Yasuhara Chemical Co; to acquire fast pay-back wood pelletisation equipment; completes placement to finance expansion with tangible return on invested capital



First product purchase order of terpene following rigorous testing and approval by Yasuhara Chemical Co.



Decision made to **double production to 16,000tpa** of rosin and terpenes



Wood pellet opportunity expected to contribute additional \$8.0m revenue; two pellet lines with 6-month pay-back period each



Successful stump trials prove viability of stumps as a feedstock and highlight its strategic importance



Placement completed to finance significant growth opportunities with tangible return on invested capital



Exploring new greenfield sites for geographic expansion with different forestry owners



01

Overview

Company Overview



Natural and sustainable pine chemical production

Following the acquisition of Essential Queensland Pty Ltd ("EQ") in December 2020, Leaf Resources is embarking on the biggest step-change the pine chemicals industry has experienced since the 1950's. It has developed a world-first, proprietary process for extracting pine chemicals in a sustainable and scalable way.

Leaf now utilises the patented natural organic solvent production process to extract sustainable and clean pine chemicals from resinous pine logs and stumps at significantly lower cost than existing global supply, without the chemical additives traditionally used.

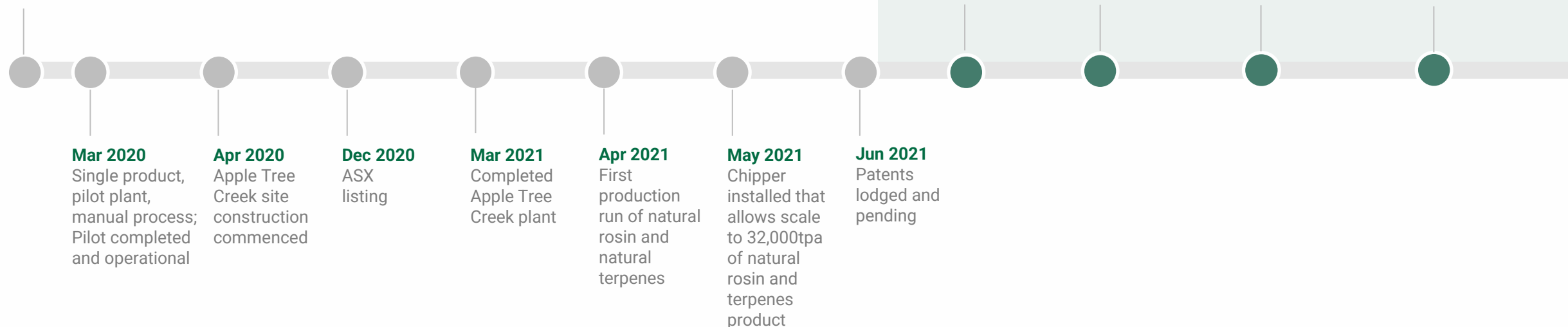
Leaf and EQ technologies enable the replacement of petroleum-based chemicals and plastics as society moves towards the bio economy.

The Company confirms it is on track for 8,000tpa production run-rate despite a brief slow down for 3-4 weeks due to recent Covid-19 lockdowns.

Production ramp up will continue in the July quarter and run in parallel with expansion activity.

Terpenes product order, successful stump trials and decision to expand to 16,000tpa

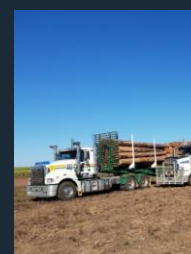
Initial agreement with Hancock Timber Resource Group (Hancock) for 15,000tpa feedstock supply agreement with first choice over resinous logs



Apple Tree Creek site
Significant forest capacity within 150kms of plantations



Long established relationship with forest owners is a significant barrier to competition



Expansion opportunities are plentiful, well beyond 16,000tpa

Pine chemicals market opportunity

The addressable pine chemical market is estimated at **US\$10bn**, with an additional US\$12bn in the replaceable hydrocarbon market*

GROWING AT 5% CAGR UNTIL 2027***



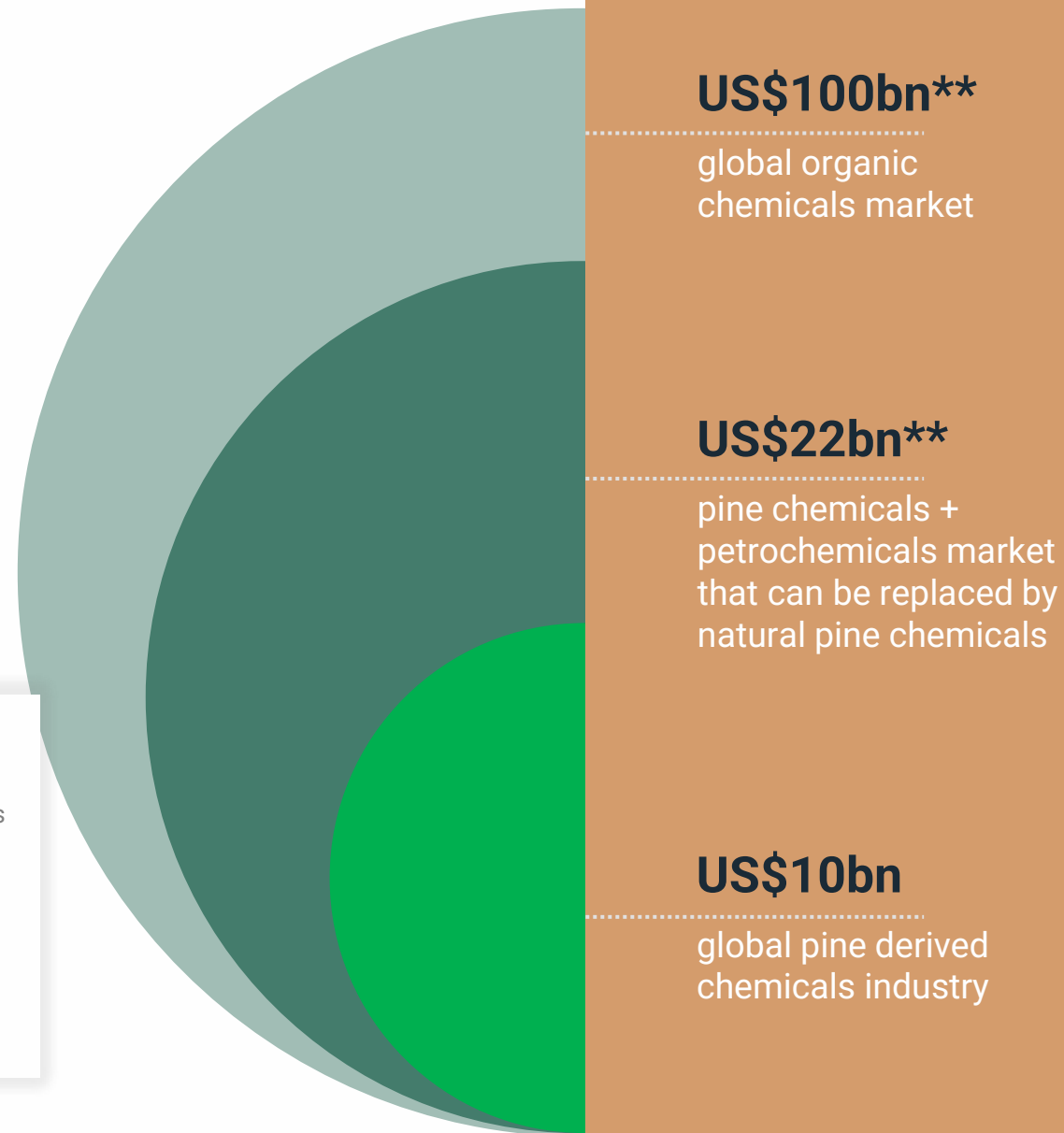
Market demand to continue to grow in line with worldwide demand for sustainable renewable chemicals.



Diminishing sources of supply of pine chemicals due to high cost of extraction and inefficient “old world” supply practices, in particular, the high labour-based tree tapping production.



Reshaping the economics of using natural pine chemicals to replace petrochemicals in thousands of everyday products.



* PCA Industry Report – Global Impact of Modern Pine Chemical Industry 2019

** Company Analysis from publicly available documents

*** Fact.MR Pine Chemicals Market Forecast, Trend Analysis & Competition Tracking - Global Market Insights 2019 to 2027 Feb 2020; Executive Summary

A background image of a dense evergreen forest with mountains in the distance, overlaid with a semi-transparent green filter.

02

Products

Product overview



**Natural
Rosin**



**Natural
Terpene**



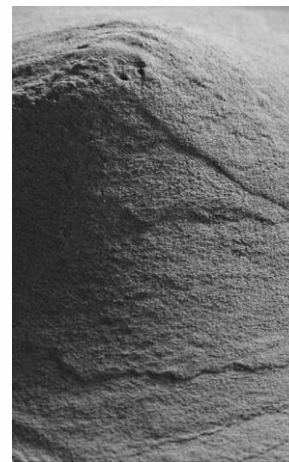
**Wood
Chips**



**Wood
Pellets**



**Cellulosic
Sugars**



Lignin



**Refined
Glycerol**

Revenue generating today

Capital raising to
hasten high yield
pelletisation

Long term embedded upside

Natural pine rosin



Found along with terpene in pine logs and stumps, pine rosin is a **highly sought-after material**, used in various everyday products, from chewing gum to tires.

Leaf prides itself in producing world class natural pine terpene and natural pine rosin in its **purest form, with zero additives**.

The highest grade of natural rosin is a product of distillation that **only uses steam** and does not come into contact with any external chemicals.

Rosin and its chemical derivatives are chiefly **used to make** soaps, varnishes, sealing wax, printer inks, driers, sizes for paper, adhesives, binders, soldering fluxes, and gloss oils for paints.

MULTI BILLION-DOLLAR END USE MARKETS:

ADHESIVES



GUM



INKS



PAINT



CAR TIRES



Natural pine terpene



Leaf is the only company in Australia that is extracting terpene from pine trees and manufacturing natural pine terpene. Terpene is inseparable from our everyday lives and is used in the formulation of food flavouring essences, disinfectants, health products and perfumes.

Leaf uses continuous counter flow steam distillation process, that is chemical free. It is immiscible with water and has a high boiling point. The natural organic solvent extraction technique results in nothing but 100% terpene.

The natural terpene is then exported out of Australia to customers in large quantities.

MULTI BILLION-DOLLAR END USE MARKETS:

FOOD ESSENCES



DISINFECTANTS



PERFUMES



Natural wood pellets



Part of the proceeds from the capital raising will fund pelletisation equipment that is expected to have a 6-month pay-back.

Once the natural terpene and rosin has been extracted, the left-over wood will be refined into pellets with uniform size, shape, moisture content, density and energy.

Wood pellets are a renewable alternative to coal. Wood-based bioenergy is part of an all-in renewables strategy as explicitly recognised by the Intergovernmental Panel on Climate Change (IPCC) to reduce carbon emissions and limit dependence on fossil fuels.

CAPITAL RAISING UNLOCKS SIGNIFICANT VALUE VIA WOOD PELLET PRODUCTION



SIGNIFICANT ROIC OPPORTUNITY

Expected to contribute \$8.0m revenue per annum, with 6-month pay-back.



MORE HEAT

The moisture content of pellets is substantially lower (4-8%, compared with 20-60% for raw biomass). Less moisture means higher British thermal unit (BTU) value and easier handling, especially in freezing conditions with green biomass.



REDUCED TOXIC EMISSIONS

Fossil fuels release arsenic, carbon monoxide, sulphur and carbon dioxide when used for heat and energy. Whereas pellets burn more efficiently, and emissions from pellet burners meet most Environmental Protection Act requirements.



LESS WASTE

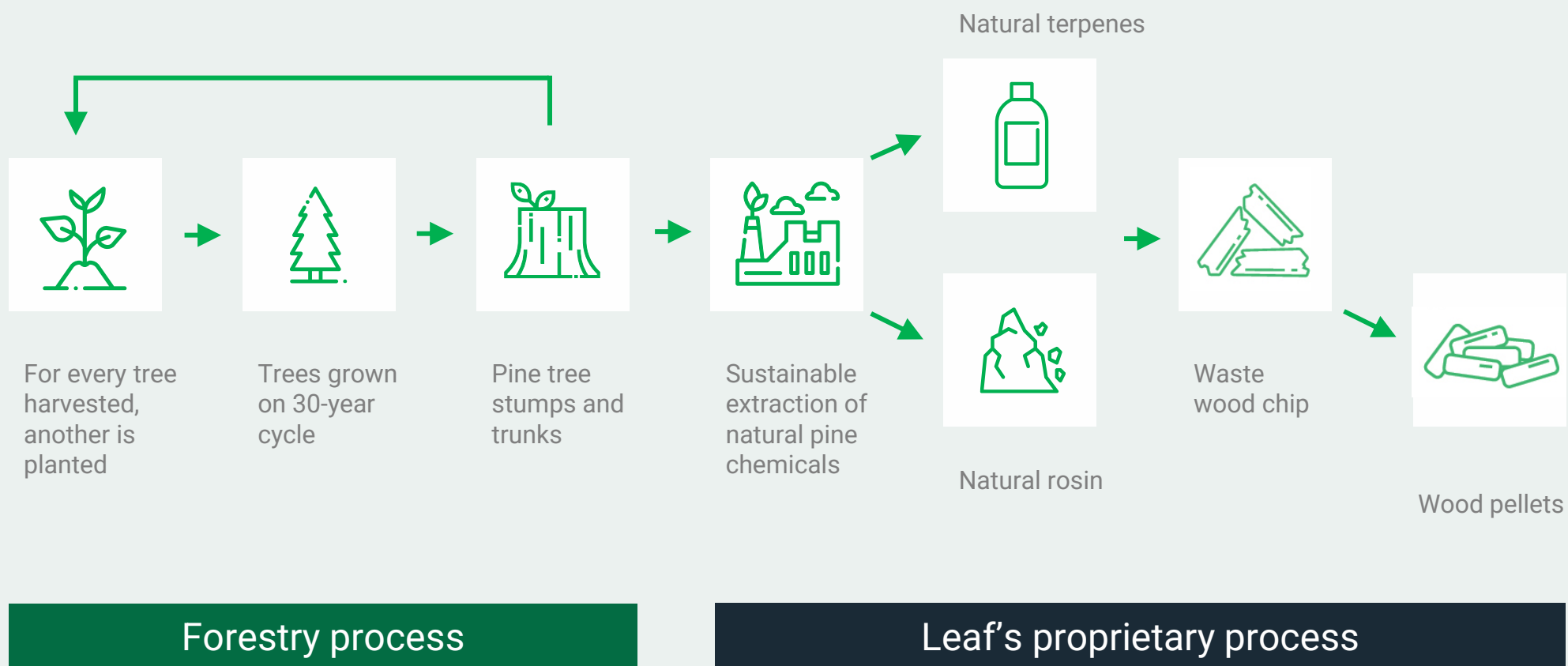
Leaf uses parts of the tree such as stumps which would normally be considered a waste product/low value wood. 100% of wood is sourced from FSC forests.



03

Sustainable competitive advantage

Proprietary and patent pending process



ESG focused

Transitioning the chemical supply chain to an environmental and organic supply chain by **using renewable feedstock (pine trees)** and replacing petroleum products (petrochemicals)



As society increasingly moves toward the bio economy, with more sustainable methods of production and extraction required, Leaf's innovative, environmentally friendly processes and products are leading the way in the replacement of petroleum-based chemicals and plastics.

The process replaces Hexane with a natural organic solvent, which does not leave any unnatural residues in the final product, creating a unique and completely environmentally friendly process that makes products suitable for all downstream processing, including food grade products.

Furthermore, stumps and other parts of the tree are used which would normally be considered a waste product or low-value wood under existing forest management practices. This increases the efficiency and productivity, reduces waste, and reduces carbon footprint. By harvesting stumps, forest owners improve the productivity of their land and encourage reforestation.



Proprietary and patent pending process

Dedicated to sourcing wood from certified forests and only using natural elements such as water, steam and heat to extract pine chemicals. No part of the tree is wasted.



SUPPLEMENTING THE PETROCHEMICAL SUPPLY CHAIN

Every 1kg of product Leaf produces is another 1kg of petroleum products can be replaced. Leaf's products directly replace petrochemical sourced products in the marketplace.



NO HEXANE OR PETROCHEMICALS USED

Pine chemicals are extracted using only low heat, low pressure, water, steam and a natural organic solvent. No petrochemicals are used in the extraction process. The process results in natural, clean pine rosin and natural, clean pine terpene.



TREES SOURCED FROM FSC CERTIFIED FORESTS

Leaf only uses sustainable renewable plantation forests that are farmed on a 30-year cycle. This means for every tree used, another is planted.



CLOSED LOOP MANUFACTURING

Waste products are water and spent wood. The water goes into irrigating local farmland and the waste wood will be used to manufacture wood pellets that replace coal in heating and power generation plants.



CARBON NEUTRAL

In 2018 the EPA declared burning wood for energy 'carbon neutral'. This is because when wood pellets are burned, the same amount of carbon dioxide is released as was captured by the tree during its growth phase.



NO PART OF THE TREE IS WASTED

This includes stumps which would normally be considered a waste product or low value wood. Stump harvesting improves the productivity of the land as it encourages natural reforestation, adding more value to our partner forestry companies.



FEEDSTOCK FOR GLYCELL

Furthermore, the cellulosic 'waste' product is a potential feedstock to Leaf's proprietary Glycell process for producing clean industrial sugars as a medium to long-term growth prospect.

Adding value in the forest supply chain

SUCCESSFUL TRIALS PROVE STUMP HARVESTING BUSINESS CASE AND ALIGNMENT WITH FOREST MANAGERS

Age old problem

Stump removal is the largest cost for forestry companies. Therefore, many forestry companies simply do not remove or use stumps and would normally be considered a waste resource.

Leaf's solution

Leaf covers the cost of stump removal, providing forest owners with another revenue stream while helping regenerate the forest.

Benefits of stump feedstock

Stumps contain more pine chemical than logs, which benefits Leaf.

Stump harvesting encourages natural reforestation while improving revenue, which benefits the forest manager.

Sustainable competitive advantages

The biggest step change the pine chemicals industry has seen in 70 years that is protected and unique to Leaf



IP PROTECTION

International patent pending pine chemicals extraction technique for producing pure products which encompasses significant know-how and trade secrets. Supported by product patents, meaning protection over natural terpene and natural rosin irrespective of the process used by competitors.



RELATIONSHIPS

Long established relationship with forest owners is a significant barrier to competition. Relationships with large global customers are already established due to managements, long-standing history in the industry.



STRATEGIC ALIGNMENT WITH FORESTRY OWNERS

By paying for stump removal, Leaf unlocks a new revenue stream for forest owners while regenerating the land for replanting.



LOWER CAPEX AND OPERATIONAL COSTS

No harsh chemicals results in lower capex and lower operating costs as there is no costly chemical removal processes at the back end.



**A TRULY
sustainable solution**

Superior over incumbent process and products

LEAF PINE CHEMICALS

Low relative capex



Low waste



No toxicity



Sustainable



Semi automated



Not labour intensive



Food safe quality



PINE CHEMICAL PRODUCERS (GUM TAPPERS)



PETROLEUM BASED CHEMICAL PRODUCERS



An aerial photograph of a dense, lush green forest. A light-colored, winding river or path meanders through the trees, creating a series of loops and curves. The overall tone is a deep, vibrant green.

04

Financing to scale and expand

Equity capital raising for accelerated expansion

Capital raising expected to deliver tangible and significant shareholder value



Leaf completed an equity placement of \$8,000,000 million at \$0.10 per share under existing placement capacity available under LR 7.1a (the “Offer”).



The placement coincides with the decision to double production capacity to 16,000tpa of natural rosin and terpene as its next target following the successful terpene product test and order from Yasuhara. Material expansion opportunities exist beyond this.



Wood chip production will be replaced by wood pellets which sell for 5x more on a comparable basis. It is anticipated that the relatively low capex will have a pay-back period of 6-months production of natural rosin and terpene and add annual revenue of \$8.0m at full capacity.



Leaf is investigating a short list of highly prospective greenfield expansion sites. Geographic expansion would provide operational and supply diversification, while providing substantial growth opportunities.

Significant expansion step change

Theoretical at 16,000tpa of rosin and terpenes, with many expansion opportunities to increase production beyond this point

		Previous Capacity		Expanded Capacity	
Product	Revenue Per tonne AUD*	Operating capacity (Apple Tree Creek)	Revenue Potential	Operating capacity (Apple Tree Creek)	Revenue Potential
ROSINS	\$3,345	6,800 tpa	\$22.7m	13,600 tpa	\$45.5m
TERPENES	\$6,230	1,200 tpa	\$7.5m	2,400 tpa	\$15.0m
WOOD CHIPS	\$36	27,500 tpa	\$1.0m	0 tpa	\$0.0m
WOOD PELLETS	\$207	0	\$0.0m	43,800 tpa	\$9.1m
TOTAL			\$31.2m		\$69.5m

* Rosnet, spot prices July 2021 and assuming USD/AUD exchange rate of\$0.74

Use of funds

ITEM	\$	%
Capital expansion	5,520,000	69
Working capital	2,000,000	25
Costs of the Offer	480,000	6
TOTAL	\$8,000,000	100%

Pro-forma capital structure

\$8.0

placement

80.0

shares

\$0.10

per share

Capital structure	Pre-money	Post-money
Offer price	\$0.10	\$0.10
New shares (m)		80.0
Shares on issue (m)	1,492.4	1,572.4
Market cap (\$Am)	149.2	157.2
Cash (\$Am)	0.7*	8.7
Debt and equipment leases (\$Am)	4.1*	4.1
EV (\$Am)	152.6	152.6

In addition, the following securities are on issue:
 45,058,524 unlisted options with exercise prices between \$0.03 and up to \$0.29 and various expiry dates
 33,000,000 performance rights relating to either EBITDA or retention milestones

* June 30 2021 estimate



05

Corporate

Corporate overview

Strong alignment: Directors own 758,852,880 shares or 50.85% and 70.3% is held by the top 20 shareholders*

Top shareholders

Position	Holder Name	Holding	%
1	RAMON DUDLEY MOUNTFORT & SHIRLEY JOY MOUNTFORT <MOUNTIES1 FAMILY A/C>	590,700,000	39.6
2	GREGORY LLOYD SAMSON & ROSEMARIE ANNE SAMSON	53,625,000	3.6
3	ALTOR CAPITAL MANAGEMENT PTY LTD <ALTOR ALPHA FUND A/C>	45,000,000	3.0
4	KELIRI PTY LTD <KEN RICHARDS FAMILY SUPERANNUATION FUND>	42,558,000	2.9
5	MRPG INVESTMENTS (AUS) PTY LTD	38,775,000	2.6
TOTAL		770,658,000	51.7%

* Company

LER.AX daily share price chart and volume since RTO



Directors



KEN RICHARDS
CHAIRMAN

Over 35 years of experience as a Managing Director in various listed and unlisted companies across the finance, agriculture, technology and renewable chemical sectors.



GRANT YEATMAN
EXECUTIVE DIRECTOR

Grant is a co-founder of EQ having been involved in EQ since its incorporation in 2017, providing guidance on intellectual property development and the management and growth of the company.



RAY MOUNTFORT
MANAGING DIRECTOR

For the last 20 years Ray has been primarily involved in the pine chemicals industry, working to establish his vision of sustainable natural hydrocarbon based chemical production.



DOUG RATHBONE ^{AM}
NON-EXEC DIRECTOR

Doug has extensive experience in chemical engineering and commerce. He is currently the Chairman of Rathbone Wine Group and Delta Agribusiness, a Director of Cotton Seed Distributors, GO Resources, Queenscliff Harbour, AgBiTech, and Cann Group (ASX:CAN). Mr Rathbone is the former Chief Executive Officer of Nufarm Ltd (ASX:NUF).



TERENCE GRAY
NON-EXEC DIRECTOR

Terence has deep knowledge of funds management and the Australian equity market providing expertise in company valuation, corporate financing and mergers and acquisition activity.



06 Appendix

Key terms used in this document

TERPENES

The essential oil that is present in pine trees

ROSIN

The gum or tacky sap present in pine trees

OLEORESIN

The mixture of both the terpene and the rosin present in pine trees

PINE CHEMICALS

Terpenes, Terpenes, Rosin, Resin and Oleoresin

HYDROCARBON RESINS

A larger group of chemicals that include long carbon chain chemicals from both petroleum based and also pine based chemicals

SUSTAINABLE

Causing little or no damage to the environment and therefore able to continue for a long time

RENEWABLE RESOURCE

A renewable resource is a natural resource which will replenish to replace the portion depleted by usage and consumption, either through natural reproduction or other recurring processes

Existing supply

Traditionally, rosin and terpene are extracted using environmentally unfriendly and labour-intensive processes. Existing production processes employ the use of high temperature, high pressure and environmentally and physically dangerous chemicals.

Leaf only uses low temperatures, low pressure and a natural organic solvent. Products are environmentally friendly, have no undesirable residues from the production process and are suitable for all downstream processing including food grade products

Pine logs sourced from plantations, extracts and distills rosin and terpenes respectively (gum rosin & terpenes). Leaf is an efficient, sustainable low-cost producer in the global market.

There are three processes commonly used to extract rosin and terpenes from pine trees:



CRUDE TALL OIL (CTO)

A by-product of the pulp-making process, is fractionated to produce rosin and terpenes (tall oil rosin & terpenes). Whilst CTO is renewable it is an environmentally unfriendly process as it creates serious waste streams with harmful impacts.



CRUDE WOOD OR EXUDATES (OLEORESIN)

Is collected from incisions (Tappers) made in the tree trunk which is then distilled into terpenes and rosin (gum rosin & terpenes). This process is seasonal and highly labour intensive. This process is the primary production process used in China and ROW. High-cost and seasonal, making up 25-30% of supply.



PINE WOOD (STUMPS)

Is solvent-extracted using petroleum based solvents such as Hexane and then distilled to separate terpenes and rosin (wood rosin & terpenes).

Medium term strategic feedstock for glycell process



Risks

Risk	Mitigant
Natural disaster	Pine trees tend to be resilient. Most storm events tend to be localised and will not affect all properties or to the same degree. Damage is more likely to be localised on one forest, not normally all
Regulatory or political	As Leaf is producing natural sustainable pine chemicals it is unlikely to be impacted by EPA regulations or other regulations that petroleum chemical companies have to contend with
Process or IP	Non-compete clauses exist for all existing staff of Leaf. Standard operating procedures exist but are not easy to copy or duplicate. The knowhow is a combination of over 30 years of experience including information not documented. Leaf lodged provisional patent applications in June 2020.
Customer concentration	Leaf will seek to mitigate buyer risk by securing offtake from other parties
Counterparty	Internal controls
Currency	Hedging as appropriate
Demand	Leaf is unable to predict the future course of the pine chemicals industry, or the strength, pace or sustainability of its growth worldwide. Pine chemicals form a part of the hydrocarbon commodities market. Demand for hydrocarbons is ever present for oils, adhesives, grease, inks and plastics. It is not anticipated that these downstream markets are likely to decline

Risk	Mitigant
Personnel	The founders / key personnel have an affinity to the project and hold equity to ensure ongoing retention. Leaf intends to systemise its business to reduce this risk.
Plant commissioning	The resin processing pilot plant has been deployed and tested for over a year processing up to 75 tonnes of logs per day. Leaf believes any technical risks for its commercial plant would be minor.
Feedstock supply	Forest owners are very conservative and Leaf obtaining the log supply contract was a major milestone built on a 33-year long relationship with major pine plantation manager. The Company has identified several feedstock supply sources to meet its manufacturing requirements.
Competitor response	Leaf has lodged provisional patent applications on its innovative organic solvent process. The pine chemical industry is a relatively large commodity market. The Company is able to sell its commodities into this market.
Commodity price	The market is defined as a worldwide commodity and both rosin and terpene chemicals are sold by open and closed bidding processes directly to consuming chemical companies and selling agents. Leaf will sell to both types of buyers.



CONTACT US

TERRY GRAY



terry.gray@leafresources.com.au

