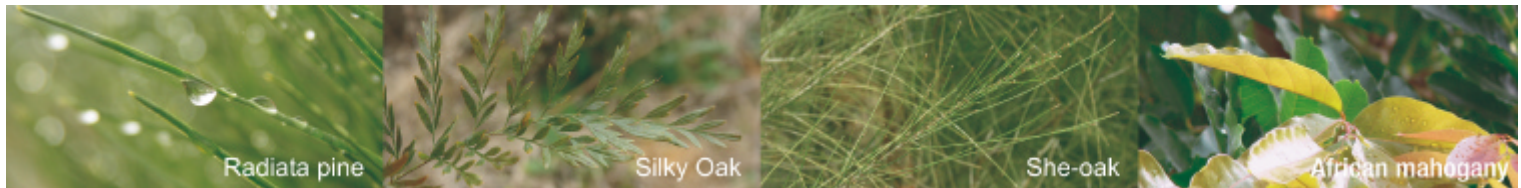




Australian Pellet Export Outlook

David Smith – Senior Executive Forestry Operations



Radiata pine

Silky Oak

She-oak

African mahogany

PRESENTATION OVERVIEW

- Overview of Australia's potential for Biomass supply
- Australia's current and proposed Pellet production
- Potential for pellet supply from Existing Plantations & Dedicated short rotation coppice Plantations in South Eastern Australia

WILLMOTT FORESTS PLANTATION ESTATE

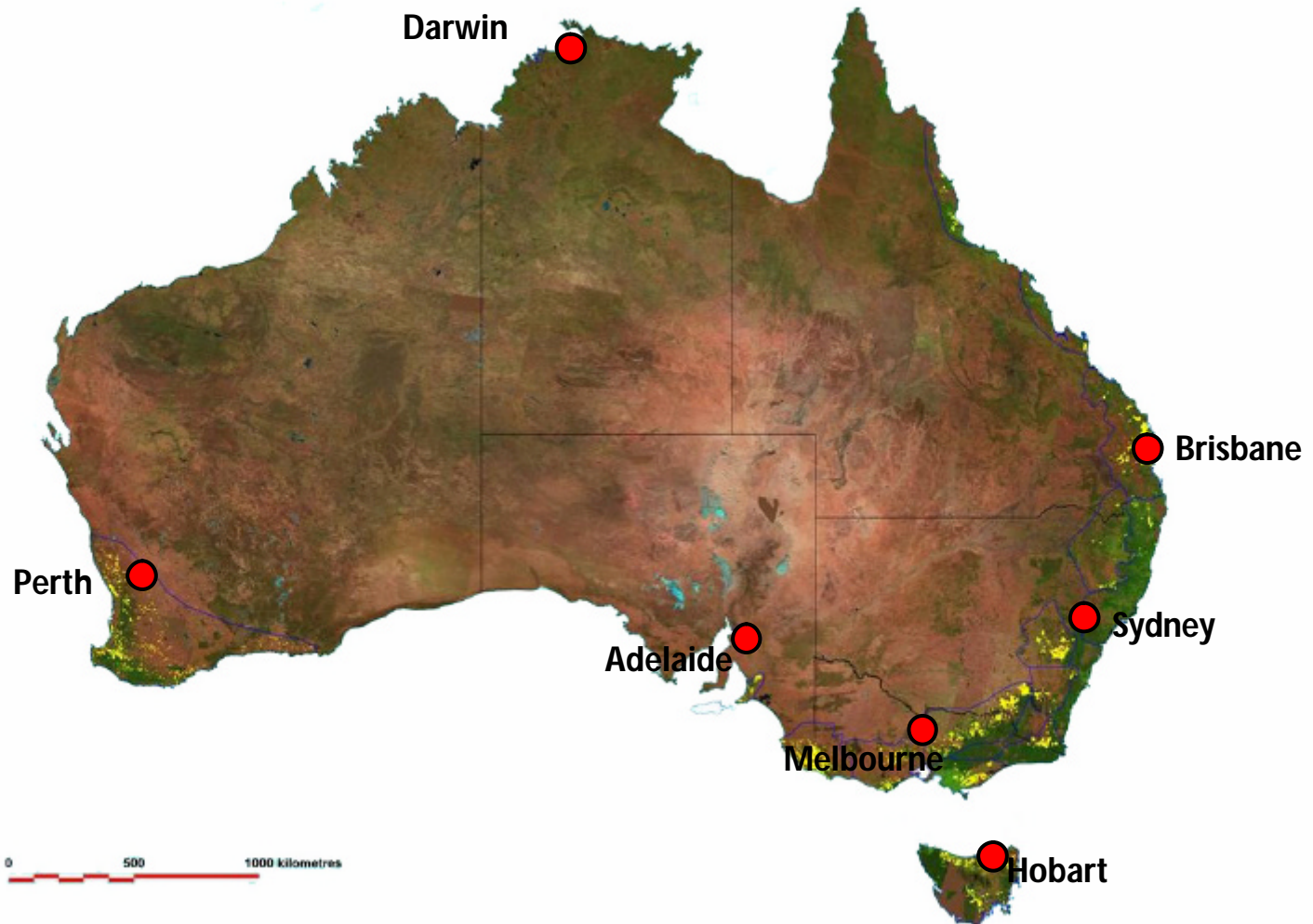


AUSTRALIAN BIOMASS RESOURCES

RESOURCE	Amount (Mt/year)	2010 Electricity generation (MW)	Electricity generation potential (MW)
BAGASSE	11	250	1,000
BLACK LIQUOR	0	50	60
FOREST PRODUCTS & RESIDUES	23	NA	1,500
MSW / C & I / C & D	33	NA	930
AGRICULTURAL CEREAL CROP WASTE	30		
ENERGY CROPS - OTHER	8		
TOTALS	104	300	3,490

- Australia has considerable potential to generate new electricity production from biomass resources
- Most of the potential electricity generation will come from forest products & residues
- Pellet production in the short and medium term will focus on forestry residues, particularly from plantations

AUSTRALIAN PLANTATION ZONES



AUSTRALIAN BIOMASS RESOURCES

Country	Total Land Area (km ²)	Total arable farmland area (km ²)	% Arable of Total Land Area
Australia	7,618,000	468,000	6%
United Kingdom	242,000	55,660	23%
Netherlands	34,000	7,480	22%
Japan	364,485	7,480	12%
South Korea	96,920	15,507	16%

Australia has:

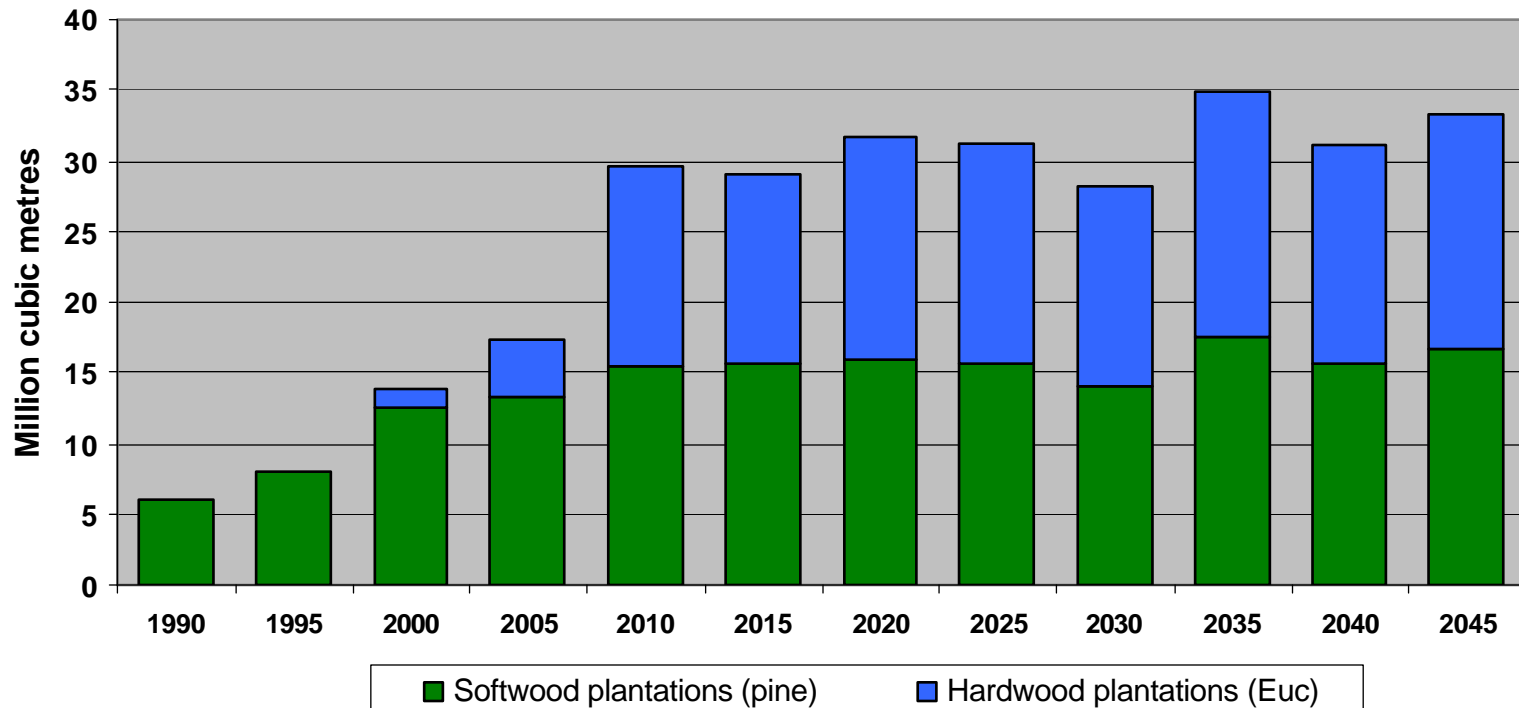
- 8 times the arable farmland of the UK
- 10 times the arable farmland of Japan
- 30 times the arable farmland of South Korea
- 62 times the arable farmland area of the Netherlands

AUSTRALIAN FOREST OVERVIEW

- Australia has 163 million hectares of native forest producing 10M m³ of logs per annum
- Australia's plantation estate comprises 1 million hectares of hardwood plantations and 1 million hectares of softwood plantations
- From this two million hectares of plantation 20 million m³ of logs are produced per annum, increasing to 30 million m³ per annum by 2014

AUSTRALIAN PLANTATION REVIEW

Past and Future Australian Plantation Log Supply

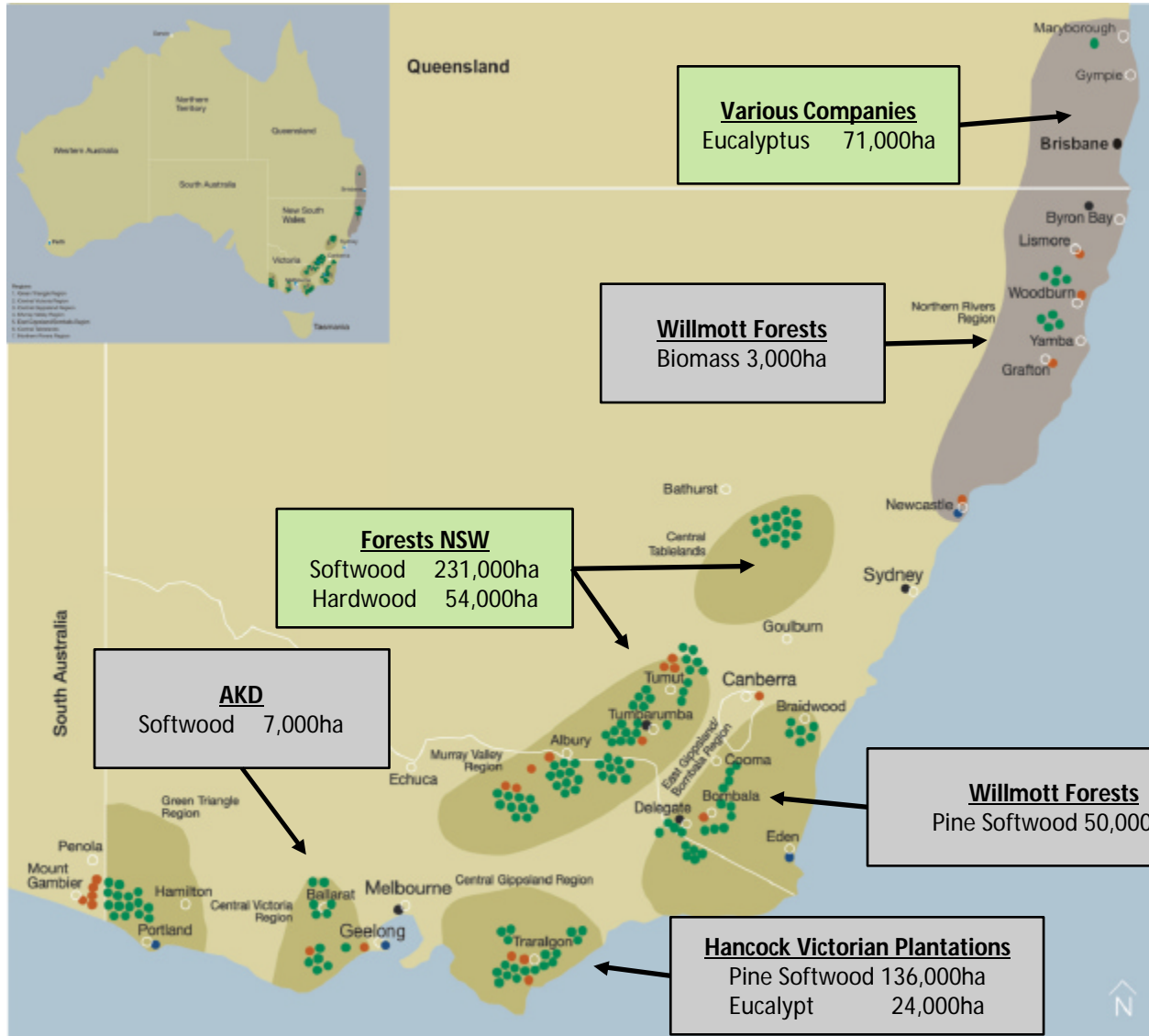


PELLET MILL FACILITIES



● Plantation Energy	250,000t /pa
● Plantation Energy	250,000t /pa
● Altus	50,000t /pa
● HVP / WFL / AKD	300,000t /pa
Total	850,000t /pa

HVP, WFL, AKD PELLET SUPPLY POTENTIAL



Willmott Softwood	50,000ha
Willmott Biomass	3,000ha
HVP	160,000ha
AKD	7,000ha
Forests NSW	285,000ha
Various	71,000ha
Total	576,000ha

HVP, WFL, AKD

PELLET SUPPLY POTENTIAL



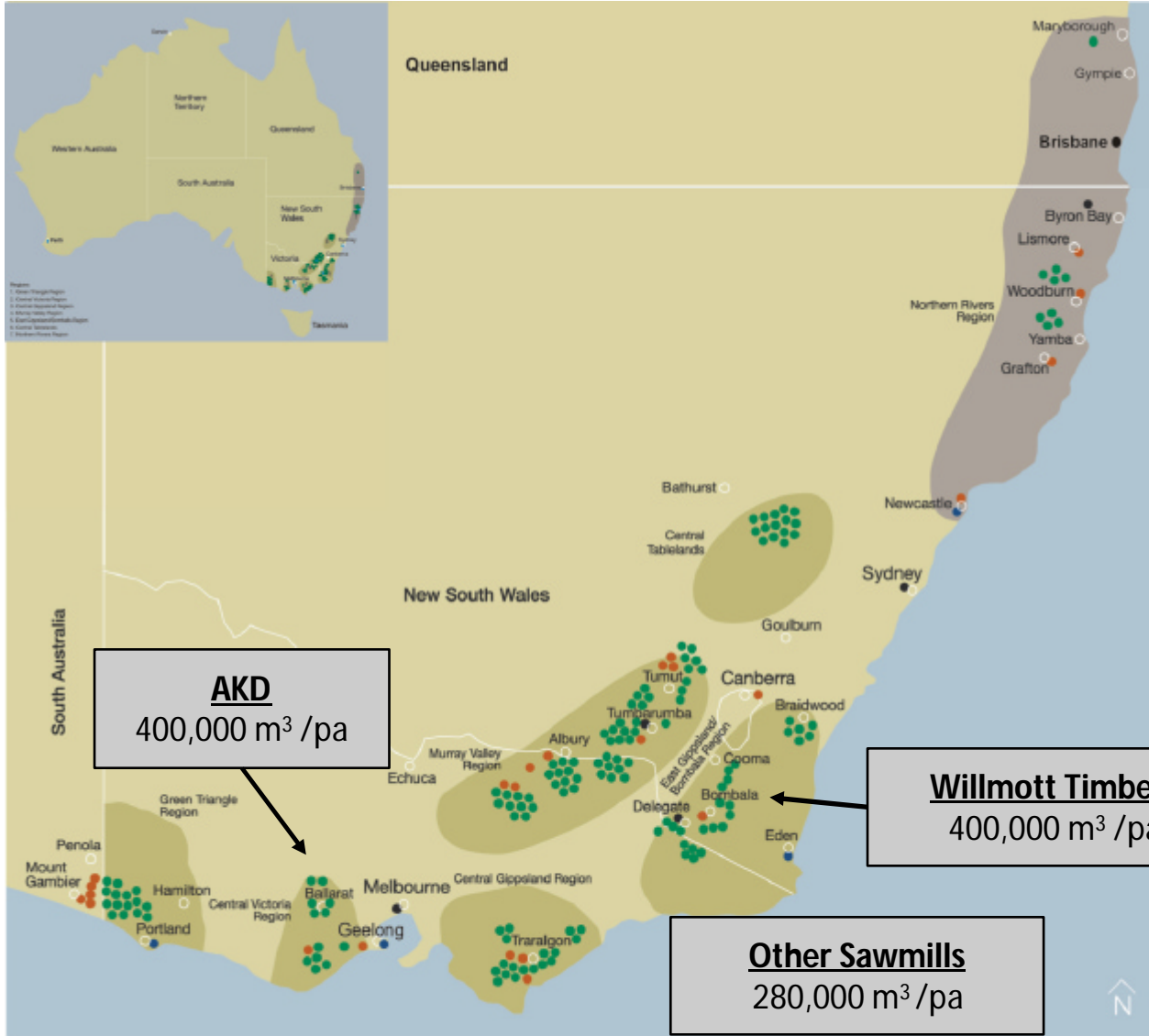
Willmott Forests

HVP, WFL, AKD

PELLET SUPPLY POTENTIAL



HVP, WFL, AKD PELLET SUPPLY POTENTIAL



Willmott Timbers	400,000 m ³ /pa
AKD	400,000 m ³ /pa
Other Sawmills	280,000 m ³ /pa
Total	1,080,000 m³ /pa

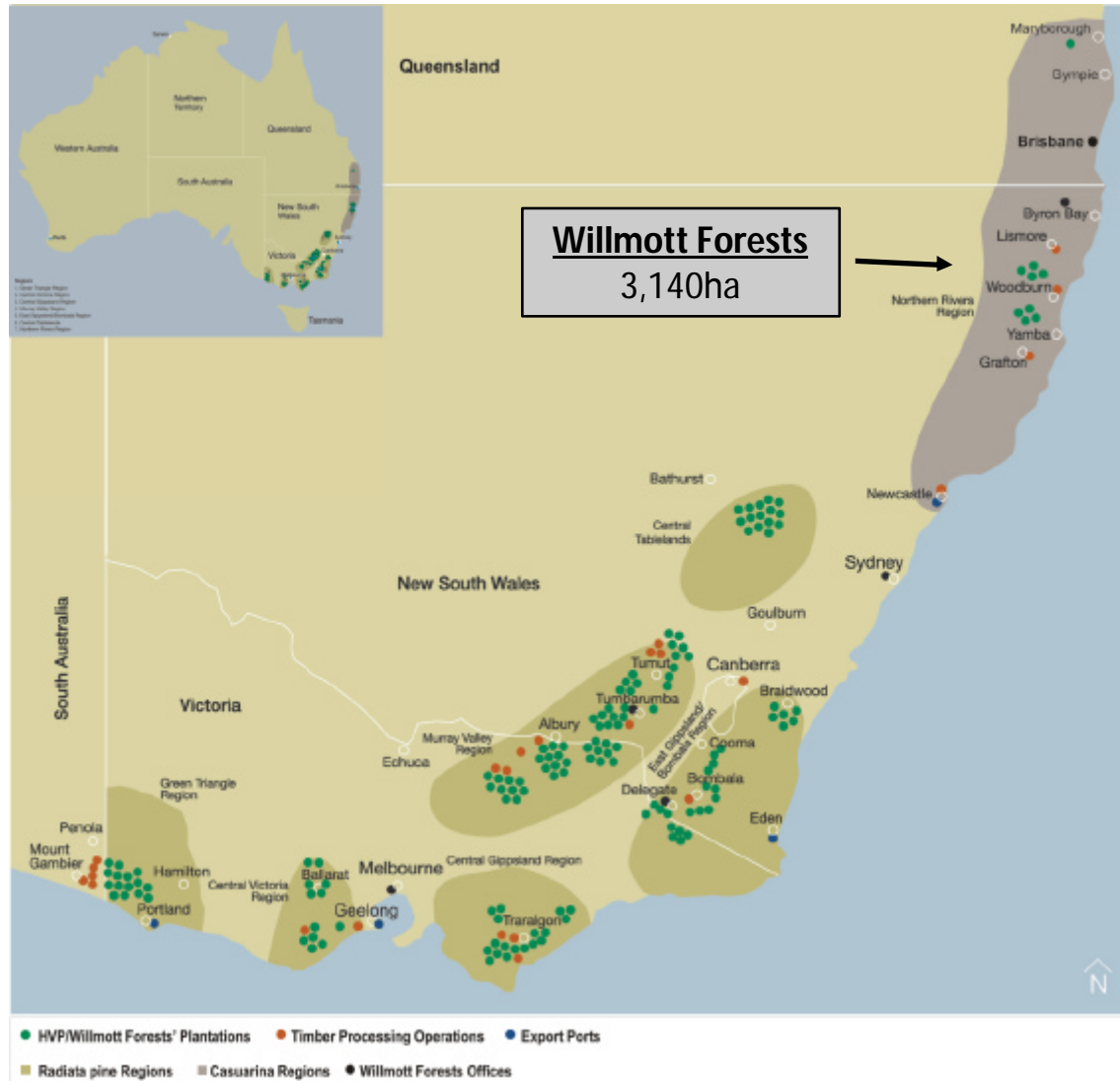
HVP, WFL, AKD

PELLET SUPPLY POTENTIAL



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DEDICATED BIOMASS PLANTATIONS



What have we learnt about dedicated biomass plantation development?

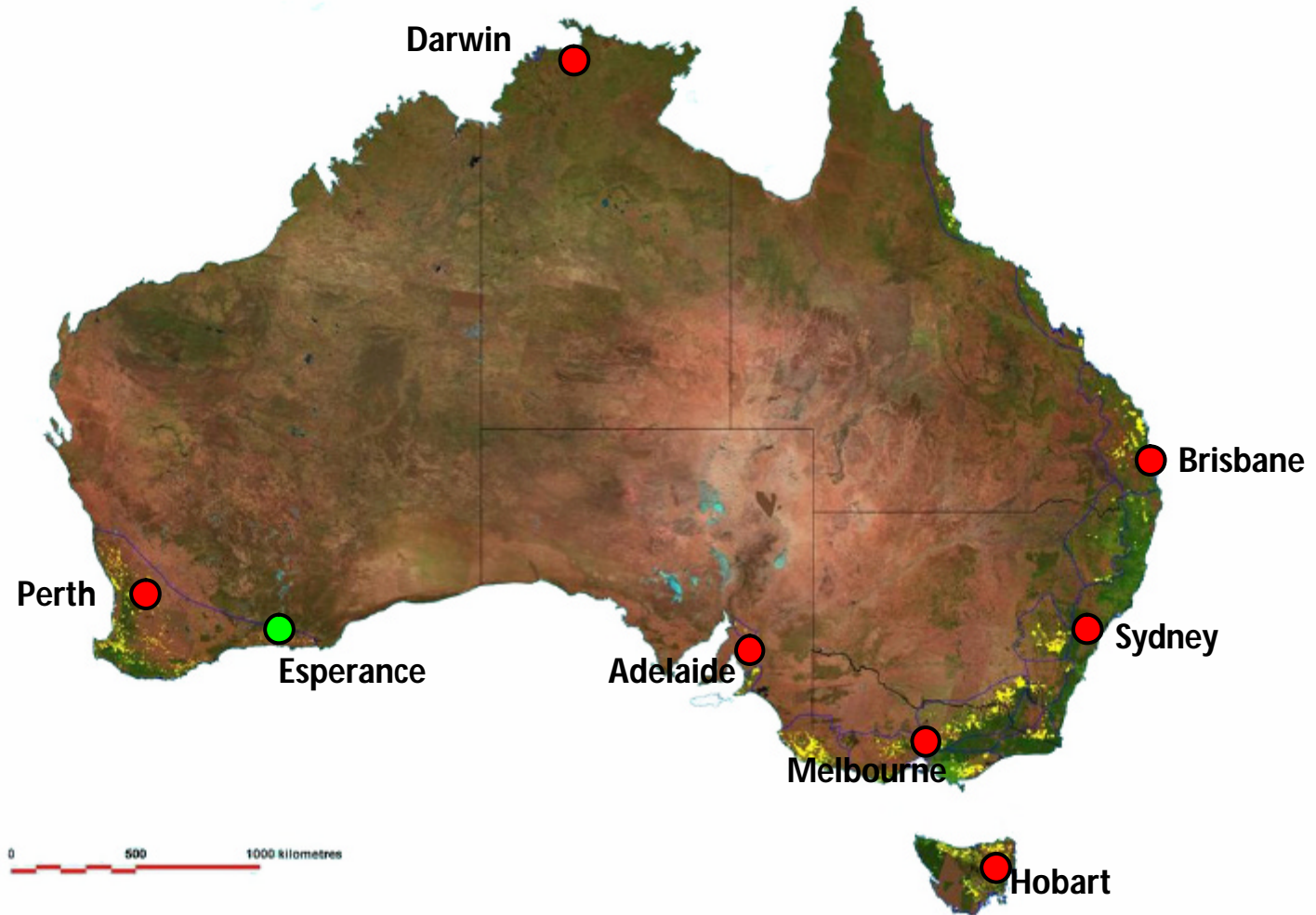
- Must be located near processing and/or export ports (eg 50-70km)
- Trade off between land prices and productivity (marginal land better)
- Land needs to be flat and easy to cultivate

DEDICATED BIOMASS PLANTATIONS

- Scale required: 10,000 to 20,000 hectares depending upon productivity
- Up-front costs offset through tax deductions and carbon off-sets

In short – Australia has significant potential for dedicated biomass plantations

DEDICATED BIOMASS PLANTATIONS





DEDICATED BIOMASS PLANTATIONS

PLANTATION VARIABLES	CASUARINA	EUCALYPT
PRODUCTIVITY	20 t/ha/yr	10 t/ha/yr
LAND PRICES	€ 3,400	€ 1,200
SITE PREPARATION	€ 190	€ 130
WEED CONTROL	€ 360	€ 120
PLANTING	€ 880	€ 660
MAINTENANCE *	€ 1,110	€ 1,050
ROAD CONSTRUCTION	€ 110	€ 50
TOTALS	€ 6,050	€ 3,210
REAL IRR **	~10%	~10%

- High Productivity = High Costs
- Comparable returns for very different productivity sites

DEDICATED BIOMASS PLANTATIONS



SUMMARY

- Australian pellet production still in its infancy – 125,000 t/pa at present
- A further 850,000 t/pa of pellet production being assessed
- Currently minimal domestic pellet demand with production focused on export
- Potential for European / Asian purchasers to deal directly with large plantation owners
- Large potential for dedicated biomass plantation development



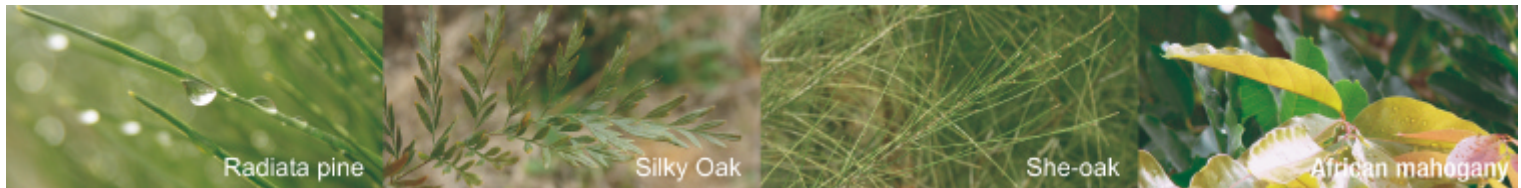
Willmott Forests

David Smith – Senior Executive Forestry Operations

Ph: +61 3 9696 1355

Mob: +61 418 332 780

david.smith@willmottforests.com.au



Willmott Forests



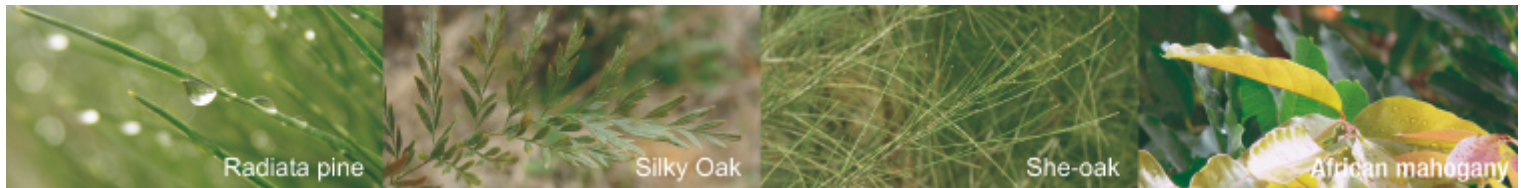
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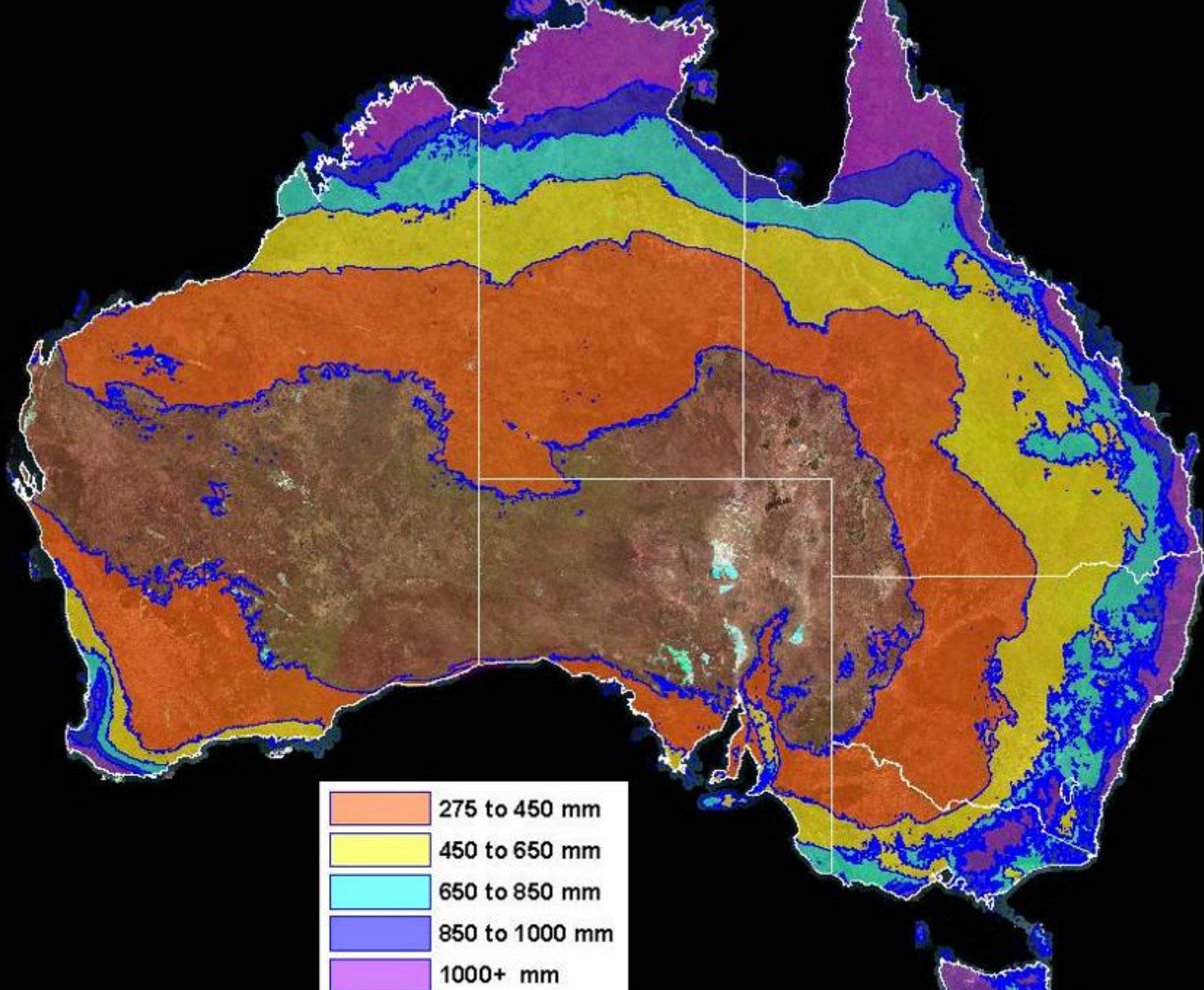
Ph: +61 3 9696 1355

Mob: +61 418 332 780

david.smith@willmottforests.com.au



Willmott Forests



COMPARISON OF WARMING COUNTERMEASURES

	U.S.A	EU	Japan	Australia
Green House Gas reduction target (by year 2020)	20% reduction (from year 2005 level, and 17% reduction for Specific Emission Sources such as electric power plant)	20% reduction (from year 1990 levels)	25% reduction (from year 1990 levels)	5% to 25% of 2000 levels
Renewable Energy Utilisation Target	By year 2012, 6% of total supplied electric power By year 2020 15% of total supplied electric power	By year 2020, 20% of the total energy consumption (UK by 10% by 2010, 15% by 2020)		20% by 2020
Carbon Emission Trading	Will enter a new program on the federal level. Emission quotas will be distributed to companies (85% free of charge, 15% by action)	Commencing operation in year 2005		Commencing operations in 2010

BIOMASS PLANTATION DEVELOPMENT

- Sensitive to shipping and exchange rates
- Dedicated biomass plantations require a relatively high CIF pellet price
- Long term investment
- European legislation: Driving opportunities, ROC system, doubt on long term sustainability
- Australia: Sovereign risk, sustainable land, infrastructure, MIS able to assist
- Australian Government 10 years behind

BIOMASS PLANTATION DEVELOPMENT

CIF EUROPE	€ 130	A\$220
SHIPPING COST (Aus to Europe)	€ 43	A\$72
FOB AUSTRALIA PRICE	€ 87	A\$148
PELLETIZING COST	€ 27	A\$45
PELLET TO GREEN METRIC TONNE CONVERSION	0.59	0.59
MILL DOOR DELIVERED PRICE - GMT	€ 36	A\$60
HARVESTING & HAULAGE	€ 13	A\$22
STUMPAGE PRICE	€ 23	A\$38