National Timber Product Stewardship Group

Stephen Mitchell
Project Manager, National Timber Product Stewardship Group

p 02 8424 3703 e: stephen.mitchell@tdansw.asn.au

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TIMBER DEVELOPMENT ASSOCIATION

WOOD
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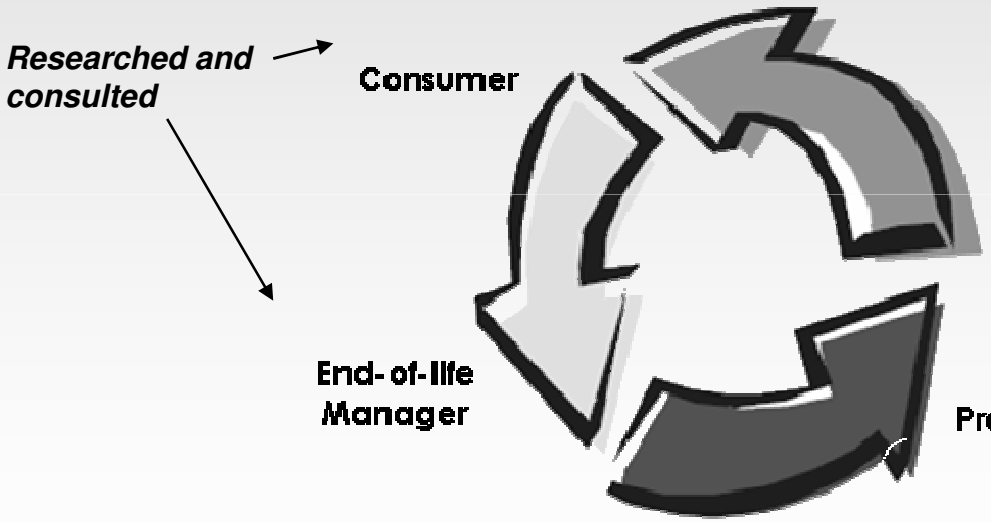
This presentation

- National Timber Product Stewardship Group (NTPSG)
  - Who we are + Aims
  - Activities
  - Progress
- Assistance in improving your recycling program

Who we are



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TPAA

ARCH

Osmose

EWPAA

TIMBER QUEENSLAND

AUSTRALIAN FOREST PRODUCTS ASSOCIATION
afpa

plus

NSW GOVERNMENT Office of Environment & Heritage

Queensland Government

FORESTS NSW

Our Objectives

- Double recovery of post-consumer timber to 1 million tonnes per annum by 2017
- Recovery for:
  - **R**euse,
  - **R**ecycling and
  - **R**enewable energy
- Minimise environmental impacts of residual end-of-life timber that is landfilled

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Our History

2004 -2005	*adhoc*
2006	Formed the NSW Treated Timber Product Stewardship Group
2007	Formed the National Timber Product Stewardship Group (NTPSG)
2007	Developed the first National Timber Product Stewardship Strategy for Post-consumer Timber
2008 - 2010	Project Implementation

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National Waste Strategy & Product Stewardship Legislation NSW want timber as priority material
\$\$
Zero Waste & EPR C&D Waste (incl. timber) – Priority Waste Ban on timber in inert landfills
\$\$
Zero Waste CCA vineyard sticks restricted to one landfill
\$\$
Towards Zero Waste & Product Stewardship Timber – Priority Material Treated Timber – Priority Product
Waste Strategy & Product Stewardship
Used Timber – Priority Material
\$\$
Waste Reduction and Recovery Targets & EPR Timber - Priority Material Treated Timber - EPR Priority
\$\$\$
No Waste
\$\$
Zero Waste
INDONESIA
Semarang
Dili
EAST TIMOR
PAPUA NEW GUINEA
Lae
Port Moresby
SOLOMON ISLANDS
Honaira
Timor Sea
Darwin
Gulf of Carpentaria
Indian Ocean
Derby
Broome
Cairns
Coral
Tennant Creek
Northern Territory
Mount Isa
Mackay
VANUATU
Port-vila
Learmonth
Alice Springs
Queensland
Noumea
NEW CALEDONIA
Western Australia
Carnarvon
AUSTRALIA
South Australia
Geraldton
Kalgoorlie
Darling
Bourke
Broken Hill
Great Australian Bight
Adelaide
Sydney
Canberra
Melbourne
Tasman Sea
Hobart
Auckland
Hamilton
Rotorua
New Plymouth
NEW ZEALAND
Westport
Greymouth
Wellington
Christchurch
Timaru
Invercargill
Dunedin
Indian Ocean
0
1000 Miles
0
1000 Km

Our Strategy*: Timber - More Life*

- Key Waste Streams:
  - Timber packaging
  - Timber from demolition
  - Preservative treated timber
  - Timber from building & manufacturing
- Actions:
  - Market development
  - Education / communications
  - Well targeted research

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Key Barriers

- Quicker and cheaper to dispose of them
- Land and labour costs for reuse and recycling
- Lack of markets
  - Recycling facilities a long way away
  - Virgin materials are cheaper/easier
  - No price of fossil carbon air emissions
  - REC prices are low for wood energy
- Planning and regulatory barriers to recycling and energy recovery

Key Drivers

- Landfill disposal costs
- Competition among waste recovery operations (to keep costs down)
- Greenhouse gas emissions reporting
- Australian Packaging Covenant
- Sustainability reporting

Timber from Demolition

- Bridge Timbers and Power Poles Project
  - Recyclers driving past stockpiles of good timber
  - Burial of good timber
  - RTA concerned about liability from people building a table, make toys, burning CCA
  - Other substances – Lead, PAHs
  - Funding from NSW Government

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Timber from Demolition

- Published protocols for reuse & recycling:
  - OH & S
  - Environmental management
  - Licensing
  - Waste disposal
  - Sale / giving away of treated off-cuts (NSW Timber Marketing Act
- Quantitative Risk Assessment (for RTA bridge timbers)
- RTA now (finally) putting tender out for their bridge timber.


GREEN
SAWDUST
ONLY

End Uses

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Timber Packaging

- Pallets, skids, crates etc
- At least 300,000 tpa disposed of around Australia
- >120,000 tpa from importing goods
- Good quality feedstock for reuse (~10%), recycling and renewable energy fuel

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Timber Packaging - Reuse

- Straight reuse - standard and non-standard
- Matching generators with users
- Generators may have to modify supply chains and warehouse arrangements

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Timber Packaging - Reuse

- Disassembly of old pallets into components
- Reassembly using new and old
- Recycling non-repairable pallets

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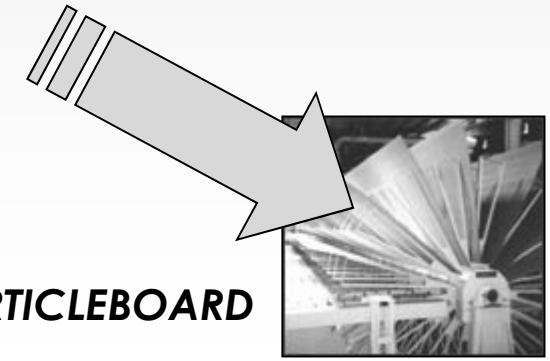
Timber Packaging - Recycling

MULCH – MossRock VIC & Jeffries SA



PARTICLEBOARD

D&R Henderson - VIC & Laminex WA

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Timber Packaging - Recycling

Chicken bedding

- Australian market >800,000 m3 per year
- Traditional sources – sawdust, shavings, rice hulls harder to get
- Shredded packaging and offcuts used in WA and VIC
- NSW trial just completed at two farms

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Timber Packaging - Renewable energy

- Two main sites in Australia
- Adelaide Brighton Cement
- Rocky Point – SE Qld
- Both v. close to major urban/industrial areas

Adelaide Brighton Cement - SA

Rocky Point Sugar Mill - QLD
Source: Stephen Schuck

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Timber Packaging

- Preservatives / Chemical Contamination
- Vast majority of wood packaging is untreated
- If imported:
  - sterilized with heat (~90%) or
  - fumigated with non-residual gas methyl bromide (~10%)

2008 Project – Treatments in wood packaging

- Nine sites in NSW, Qld and WA
- Over 6,600 cubic metres of stockpiled wood packaging
- 342 representative samples analysed with handheld X-ray fluorescence analyser
- 165 samples also characterised for other attributes

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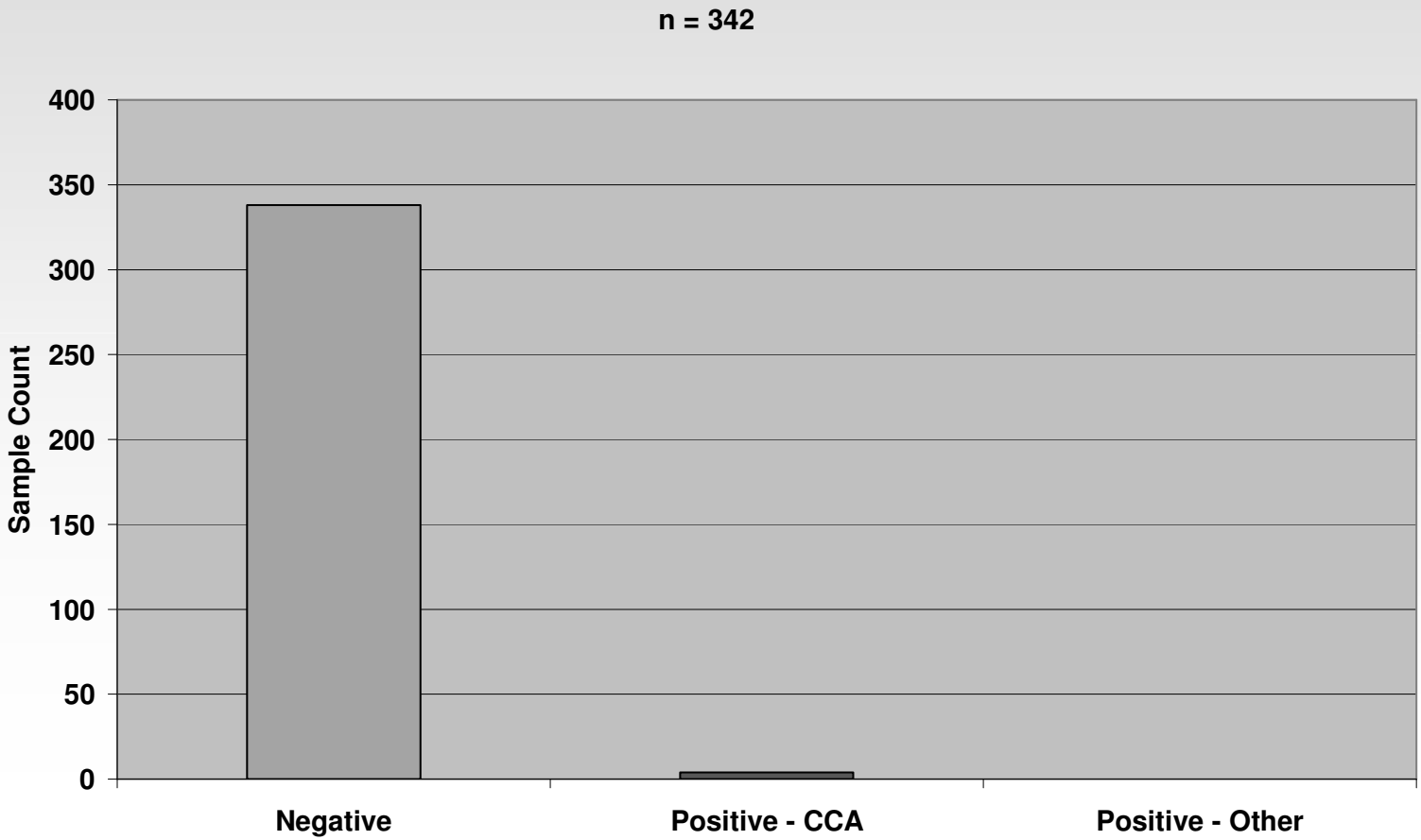
Results - 1% CCA preservative treated



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Preservatives / Chemical Contamination

Liquor Company (importing from NZ)

Petrol / diesel spillage

Organic Cosmetic Company (importing from NZ)

Metals processing contamination

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Benefits of Recycling Pallets Calculator

- Compares GHG benefits of reuse and recycling/energy recovery to landfill disposal
- Compatible with NGER and Carbon Offset Standard
- Assumptions (NSW) reviewed by third party.
- Applicable to QLD

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Carbon Benefits of Not Landfilling Wood Pallets & Packaging

This calculator is being trialled for a period of six months. Users are invited to provide feedback to the Timber Development Association by 30th November 2011.

This calculator estimates the carbon benefits (in the form of greenhouse gas emissions reductions) of recycling commercial quantities of wood pallets instead of disposing of them in landfill. The recycling options included are repair and reuse, recycling into animal bedding or landscape mulch and use to generate renewable energy.

For details of the factors and assumptions used in this calculator see the Recovered Wood Pallet and Packaging Carbon Calculator – Assumptions Report.

How to Use

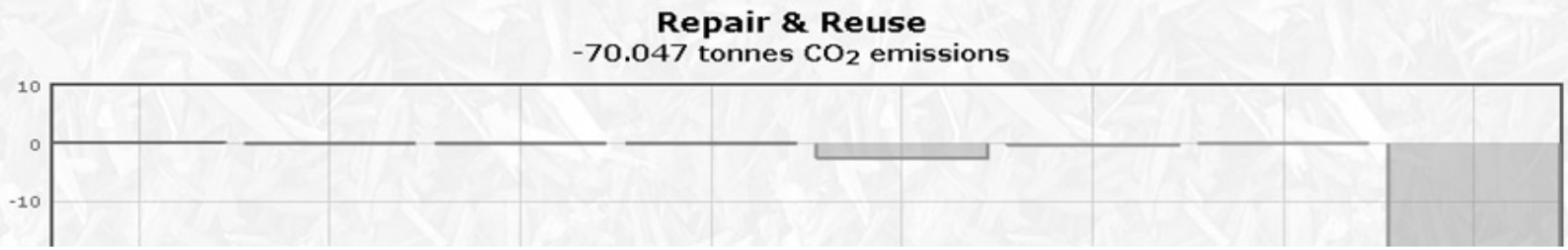
1. Enter your company name and the period you want to calculate in the boxes above
2. Select from the dropdown list whether you have information on the weight of wood packaging or quantities of pallets
3. Enter the quantities or weights of your wood packaging and/or pallets recycled for the various end uses
4. The results will be automatically calculated
5. Scroll down the page to see detailed charts of where greenhouse emissions are emitted (indicated in red) or reduced (indicated in green)
6. Click on the print button to print a two page report of the results.

Company: Make a Bazillion Inc. **Statement Period:** Jan - Mar 2011 e.g. Jan - Mar 2010

Calculate emissions by Weight

Packaging Weight (tonnes)	Recycling Options	CO_2 Emissions Reduced (tonnes)	Pallets Diverted (tonnes)
100	Repair & Reuse	70.047	100
100	Recycling into Animal Bedding	66.598	100
100	Recycling into Mulch	67.371	100
100	Renewable Energy	344.038	100
400	**Total:**	548.054	400.000

Print Report Reset



Treated timber

- 2005 - Average (in Sydney) 3-4% CCA treated timber in mixed C&D waste timber
  - Expected to increase
- 2007 – Average (in Syd, Bris, Perth) 1% CCA treated timber in wood packaging (part of C&I stream)
  - Expected to decrease

Treated timber

- Assist with ID and removal
  - Visual
  - Chromazurol-S indicator
  - XRF
- FWPA funded research on “Determination of Acceptable Levels of Preservative Treated Timber in Timber Reuse Applications”

Treated Timber

Positive

Negatives

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Treated timber

- NOTE: NTPSG is not advocating adding treated timber to recycling or energy
- Just investigating tolerable limits of different preservatives components in different applications
- Best place for treated timber waste (not suitable for reuse) is in well-managed licensed landfills
- Storing carbon!!

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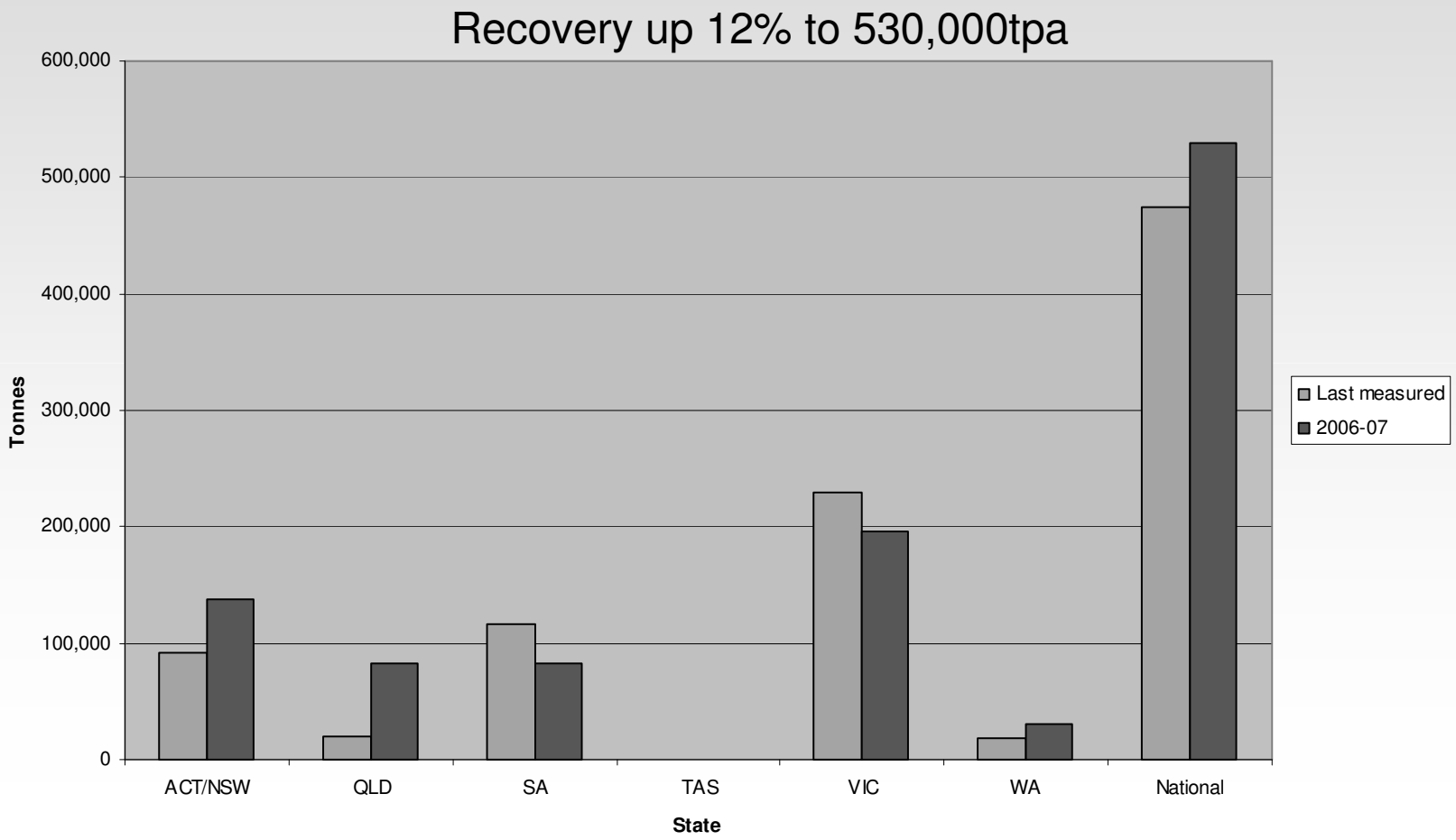
Building & Manufacturing

- Particleboard, MDF
- LVL and plywood
- From regulator perspective - more difficult
- Needs research to investigate glues and coatings and env. impacts in recycling and energy applications

Progress



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Assistance 1

- Help identify and separate treated timber (and other contaminants) from untreated
  - Education
  - Technology
  - Research
- Advocacy & lobbying
  - Submissions to Australian and state governments

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Assistance 2

- Identifying wood recovery opportunities
- Help with accessing Govt. / FWPA funding
- Working through reg. and market barriers
- Linking waste generators with recyclers:
  - Planet Ark Business Recycling
  - Timber Stewardship Directory
- Provide link from your company to www.timberstewardship.or.au

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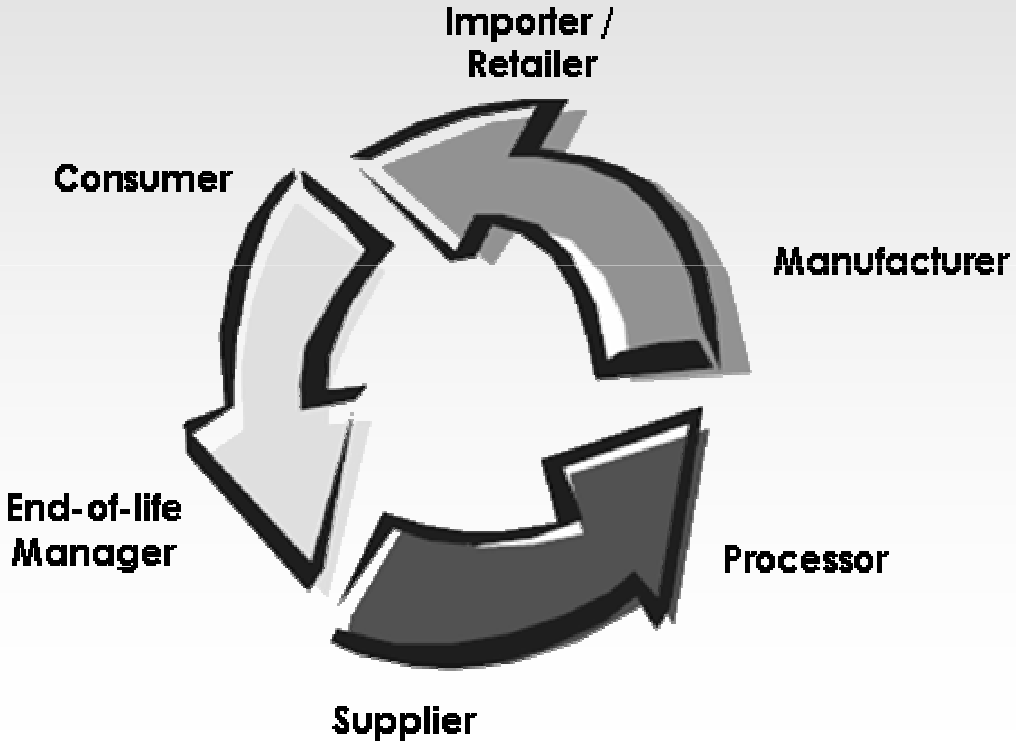
Think product stewardship



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Thank you
Questions?
www.timberstewardship.org.au
Integral Energy Head Office