



# Sustainable Design and Manufacturing

ACCORD Sustainability Seminar September 2010



# Designing for the Environment Organically

- Doing what makes good environmental sense can be “an Organic Process”.
- **The Tools** – “The 3 way approach”
  - 1. D4S
  - 2. SLF
  - 3. Carbon Neutral – **ecologia**
- Synergy between: **Brand owner environmental policies**, product, **and packaging**.
- **Case Study** – Fosters “Wolf Blass” Green Label wine “**Product Eco-vision**”
- **Case Study** - L’Oreal Professionnel playball hair products “**Corporate Eco-vision**”

**You don’t need to compromise on aesthetics, quality, cost to be doing your bit for the environment.**

# Sustainable Design and Manufacturing

The 3 way approach



# The 3 way approach

## Commitment to Sustainable Design and Manufacturing

*Sustainability Leadership Framework*



**ecologia® - World's First  
Carbon Neutral Plastic Sheet!**



**DESIGN FOR  
SUSTAINABILITY**



# 1. Environmental Credentials: Sustainability Leadership Framework Signatory

## • What is the SLF?

- The Sustainability Leadership Framework for Industry (“SLF”) was developed by PACIA (Plastics and Chemicals Industries Association) in concert with other organizations and government departments including the EPA in Victoria, NSW and Qld, Worksafe, The Australian Government Dep’t of the Environment, Heritage, Water and the Arts and Sustainability Victoria.
- Launched by the Hon. Peter Garrett AM MP in 2008, the SLF provides practical and specific **guidance on integrating sustainability through the business**. It is a rigorous program which provides policy, tools and reporting mechanisms across priority areas in the business.
- Business sustainability covers not only environmental issues but social, economic and innovation outcomes as well.
- There are 11 priority areas and goals
- Signatories must assess against these areas, implement improvement plans and report progress.

# 1. Environmental Credentials:

## Sustainability Leadership Framework Signatory

### SLF Benefits for Packaging Manufacturer:

Position us to respond, adapt & transform for changes in environment, government policy and emerging technology

- Provide a roadmap to help us integrate sustainability through the core business
- Assess and act on future risks to the business of climate change, alternative technologies, etc
- Access to tools, resources and funding through PACIA which are only available to SLF signatories
- “walking the talk” - industry leaders in sustainability by taking action
- Collaboration with a small group of leading companies who are investigating the latest and best improvement methodologies together

# 1. Environmental Credentials:

## Sustainability Leadership Framework Signatory

### SLF Benefits for Customers:

- Knowledge that SLF membership gives signatories access to best practice techniques for sustainable development.
- Programs will be implemented to actively reduce risk and cost for customers.
- Proof of industry sustainability leadership.
- Better able to ensure that sustainability impacts in the customers' supply chain are measured and managed.
- Able to rely on signatories advice as the experts in sustainability for the plastics industry.

# 1. Environmental Credentials: Sustainability Leadership Framework Signatory

Signatory to the **Plastic and Chemicals Industry Association (PACIA)**

Sustainability Leadership Framework

## The Industries Priority Areas and Goals



## 2. Environmental Credentials: Certified Carbon Neutral Polypropylene



**ecologia<sup>®</sup>**

100% Recycled Polypropylene sheet

## 2. Environmental Credentials: Certified Carbon Neutral Polypropylene

### **ecologia is “Carbon Neutral”. What Does it Mean?**

Almost all human activity has an impact on the environment. This is true for a businesses operations too. All operations, even making recycled ecologia, add some CO2 to the atmosphere.

Achieving “carbon neutral” certification means producing ecologia now adds **no CO2 to the atmosphere.**

### **How is it certified?**

All operations have been audited to international standards. This is known as a “carbon footprint.” It includes all energy and water we use on all our sites, inputs to production, plane travel, everything we purchase, even car travel to and from work. All of these activities have an “emissions factor” of CO2 that they add to the atmosphere.

From the total carbon footprint, some of this CO2 has been separated as emissions from the ecologia family of sheet. We then purchase “carbon offsets” which save the same amount of CO2 as ecologia produces. We do this by investing in projects that save emissions, such as developing renewable energy.

## 2. Environmental Credentials: Certified Carbon Neutral Polypropylene

### What Now?

The other important part of the certification is emission REDUCTION.

Now that we know how much CO<sub>2</sub> we're producing we have to come up with ways of reducing it. The best way to do this is to save energy wherever possible. The less energy we use, the less offsets we have to buy and the less we contribute to global warming. Our carbon footprint will be audited & adjusted every year.

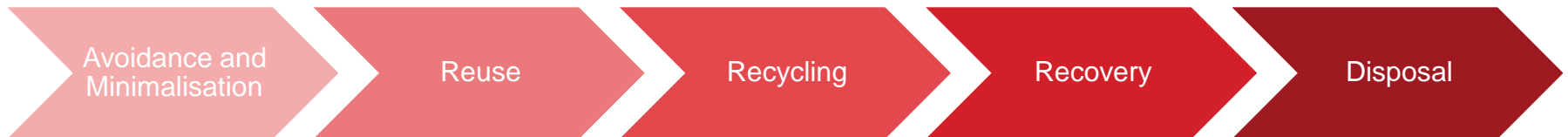
We all need to work together to decrease our impact on the environment. Every time our customers choose ecologia they will be decreasing their footprint, knowing that it has added no CO<sub>2</sub> to the atmosphere.

### 3. Environmental Credentials: D4S: Design for Sustainability

#### Triple bottom line Sustainability

D4S requires a balanced approach which considers the environmental benefits and impacts of the product along with its cost, function, performance, durability, availability and safety.

1. *Social and Ethical progress – the products should be beneficial in use without generating any harmful side effects.*
2. *Economic Growth – the product should be technically and commercially feasible and preferably offer lower lifecycle costs to the consumer.*
3. *Ecological Benefit – the product should promote environmentally responsible behaviour while minimising impacts on the environment*



### 3. Environmental Credentials: Megara Adopts the Principles Design for Sustainability

- Manufactured from 100% RECYCLED Australian made polypropylene
- Only 1 material is used where possible
- Tight supply chain
- VOC free inks. Art “straight to plate” – less set up resources.
- Designed to be shipped flat
- Quick assembly
- No glue is required
- ALL other scrap from jobs is recycled again
- Light weight material
- Good lasting design - durable material
- Innovative aesthetic
- 100% RECYCLABLE



**ecologia® -  
World's First  
Carbon Neutral  
Plastic Sheet!**

**DESIGN FOR  
SUSTAINABILITY**



- 100% RECYCLED Australian made polypropylene
- Only 1 material is used where possible
- Tight supply chain
- VOC-free inks
- CTP - Computer to Plate
- Designed to be shipped flat
- Quick assembly
- ALL other scrap from jobs is recycled again
- Light-weight material
- Good, lasting design - durable material
- Innovative aesthetic
- 100% RECYCLABLE



### 3. Environmental Credentials: Megara Adopts the Principles Design for Sustainability



**Fosters**

Wolf Blass Green Label Counter Glorifier



## Wolf Blass: Environmental Commitment

Wolf Blass is a pioneer of wine in PET bottles with its Green Label line of commercial wine, and is “responding to commercial demands that our brands act more sustainably.”

*Emily White – Wolf Blass Brand Communications Manager*

“Wolf Blass takes its first step towards reducing greenhouse gas emissions with Green Label, a new range of quality wines, uniquely packaged in PET to reduce the impact on the environment.”



## Wolf Blass Green Label: Creative Direction



“A selected range of Wolf Blass wines now come in a lightweight recyclable plastic bottle designed to make less impact on the environment by producing 29% less Greenhouse Gas Emissions\*, while still delivering the classic taste of Wolf Blass wine at its peak. It’s the kind of innovation you’d expect from the International Red Winemaker of the Year 2008 – London International Wine Show.”

Extract from “POS brief” Feb 09



# Wolf Blass Green Label Counter Glorifier: The Brief

Develop innovative and cut through Counter Unit for Wolf Blass Green Label PET innovation launching in May 2009.

**Purpose and Aim** – Needs to hold one PET bottle.

The nature of the product meant that consumers would have lots of queries and so the unit needs to be informative, inviting and encourage consumers to touch and pick up the wine bottle. The counter unit needs to be made from energy efficient, Australian made material that is both recycled and recyclable.

**Key challenges:** Learning's from other 'green' products indicate that consumers are very cynical and critical of heavily weighted campaigns and are often referred to as "Green Washing". As the PET launch is Wolf Blass' first step in reducing its impact on the environment it is critical to not overly communicate a "green" proposition.

- Stock: Consideration of recycled materials to further communicate the green proposition.
- Recycling claims of stock: Incorporate recycled certification logo/s on the Counter Unit.
- Structure: Minimal use of materials, use the most lightweight products to achieve the desired result, easy to transport to stores and to assemble.



## Synergy:



### SYNERGY

BRAND, PRODUCT, AND POS WORK TOGETHER TO COMMUNICATE THE GREEN MESSAGE WITHOUT “GREEN WASHING”

1. BRAND  
WOLF BLASS  
GREEN LABEL

2. PRODUCT  
WINE PACKAGED  
IN PET, REDUCES  
ENVIRONMENTAL  
IMPACT

3. POS DEVICE  
MADE FROM CARBON NEUTRAL 100%  
RECYCLED AUSTRALIAN PP



# Synergy: Wolf Blass Brand, Product and Counter Glorifier

## Wolf Blass Green Label Wine

Product proposition:

- 29% less greenhouse gas emissions\*
- 36% lighter in weight\*
- 100% recyclable and shatterproof
- 100% Wolf Blass quality

\*compared to 750ml glass bottle



## Counter Glorifier

Product proposition:

- 97% less carbon emissions than virgin PP
- light-weight
- 100% recycled, recyclable, re-usable
- 100% Megara durability and quality



# D4S: Wolf Blass Green Label Glorifier

## Adopts the Principles of Design for Sustainability

- Manufactured from 100% RECYCLED Australian made polypropylene
- Only 1 material is used
- Tight supply chain
- VOC free inks. Art “straight to plate” – less set up resou
- Designed to be shipped flat
- Less than 1 minute to assemble, with only 4 integral tab
- No glue is required
- 2 shelf talkers fit within the scrap area of the sheet
- ALL other scrap from this job was recycled again
- Light weight - less than 100grams
- Good lasting design - durable material
- Innovative aesthetic = 68% of retailers used it beyond the test period
- 100% RECYCLABLE



# Unique and Innovative Glorifier Design that compliments brand and product

The soft conical shape has an organic feel to it, complementing the products “green appeal”.

The unit is minimal and stylish, taking up a very small footprint for retail convenience, and making the new product the hero to the consumer.

The header is cut in the shape of the iconic “Wolf Blass curve”, reinforcing the strength of the reliable and trusted wine brand, whilst carrying the new key communications.

Both the “rain-forest-like” artwork and structural design of the unit make the bottle look like it is light and almost floating, keeping in line with the key marketing message of being lightweight.

Together, both the design of the base area presenting the bottle laid back, and the “squeeze me!” graphics, encourage consumers to pick up the bottle and feel the difference.



# Marketing at Retail: Results

- Excellent sales
- Very retail savvy footprint
- 68% of stores kept glorifier longer term.  
(Initial arrangement was only for 3 hour blocks).

The counter is absolutely critical to this product's ongoing success because of the new and innovative nature of the product.

The counter glorifier enabled Wolf Blass Green Label wine to be positioned in front of the consumer and allowed them to engage with it. It enabled Wolf Blass to drive sales increases whilst also creating awareness of the new product in an inviting environment, where questions could be asked and answered.



# “Good Design” = “Commercial Sustainability”

## Commercially Smart and Sustainable:

This execution utilises a die-forme that was previously designed to hold a bottle of wine!

The unique structure of this design has been successful in promoting 2 very different products (a bottle, then a ball!), creating real cost savings for Fosters with absolutely no aesthetic or functional compromises having been made.



**L'Oreal**  
Playball Counter Spinner



# L'Oreal: Environmental Commitment

L'Oreal is an environmentally responsible company that regards respecting the environment as a global social responsibility, much more than a legal obligation.

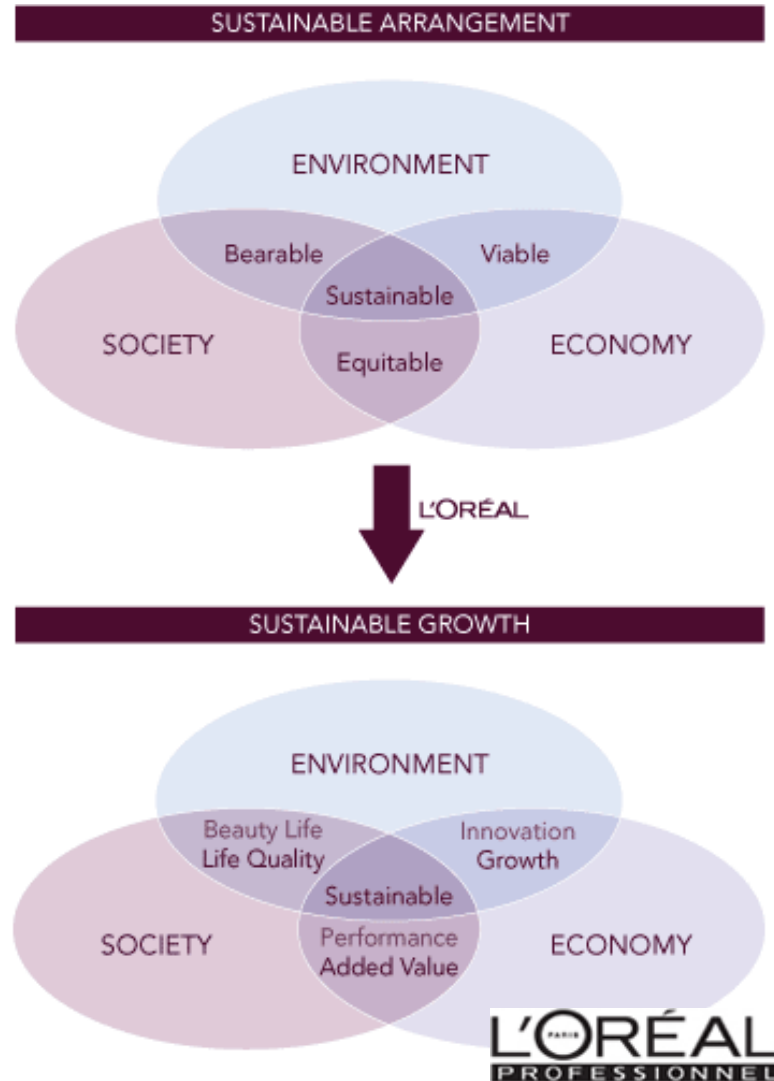
## Sustainability strategy

“By the very nature of its products, L'Oreal understands the precious value of natural resources. We aim to strike a balance between natural capital and manmade capital, which is key to our sustainable growth. Our commitment to sustainability goes further than respecting the environment and biodiversity; we must meet our economic goals and social responsibilities too.

For L'Oreal, the strategic challenge in a rapidly changing world is to create sustainable growth.”

Francis Quinn, Sustainable Development Director

L'Oréal corporate website



## Loreal: Environmental Commitment

In regards to merchandising at retail, L'Oreal's aim is to decrease the volume of POS displays and Packaging in;

- *weight and in quantity, while emphasizing recycled content and recycling.*

Accordingly, not only does this lower the impact on the environment but lowers the cost of managing route to market.

With this in mind, L'Oreal's aim where possible is to use foldable, recyclable in-store displays resulting in:

- 25% less cardboard used through recycled or alternate substrates
- 90% reduction of transport and storage space

It is important that suppliers of their packaging and POS displays are selected with environmental best practice in mind. L'Oreal regards this is as equally important to design and cost.



L'ORÉAL  
PARIS  
PROFESSIONNEL

## L'Oreal Playball Brand: **Creative Direction**



*Playball Brand – serious fun!*

*“Free your creativity and try styling the play ball way: imagine, create, play, mix, sculpt, model, hold... anything goes for even more looks and effects”*

Playball is the young contemporary of the L'OREAL PROFESSIONNEL range of salon hair-care range. playball is an edgy, funky and alternative brand compared to other more conservative salon hair-styling products. The playball customer wants to look cool and unique, but in a stylish way..”

Extract from “POS brief” Oct 09

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PARIS  
PROFESSIONNEL

# L'Oreal PROFESSIONNEL playball Counter Glorifier: **The Brief**



*To assist in launching the 3 new hair care products, L'OREAL PROFESSIONNEL wanted to create a POS glorifier that could be used on the reception counter, work station, or even be placed in their existing retail stand.*

*To achieve this, a fun but simple unit was required with three distinctly themed areas that; held a sample of each product, had a facility to hold some “take-away product information cards”, and a graphic header to support each product.*

*Given that playball is an edgy and funky brand, L'OREAL wanted to develop a solution which was more creative, better value and with as little impact on the environment as possible matching their corporate objectives.*

## L'OREAL PROFESSIONNEL Playball POS Unit – Environmental Brief

*The POS display should use minimal materials that are recycled/recyclable, light-weight, easy to transport to stores, and quick to assemble. It must also be suitable for disposal in a retail environment at the end of life.*



## Synergy:



### = SYNERGY

BRAND, PRODUCT, AND POS WORK TOGETHER TO COMMUNICATE THE GREEN MESSAGE WITHOUT “GREEN WASHING”

### 1. BRAND

L’Oreal **Environmental Commitment**

Committed to sustainable growth.

Among the world's top 100 responsible, ethical companies.

### 2. PRODUCT

Playball market is “Gen Y” – want to use and replenish natural resources.

**3. POS DEVICE MADE FROM CARBON NEUTRAL 100% RECYCLED AUSTRALIAN PP**

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PROFESSIONNEL

## Technical Background: **Materials**, Design and Manufacture.

- Material used: **100% Recycled Carbon Neutral Certified Polypropylene**
- 100% recycled polypropylene creates fewer emissions than virgin material and any CO2 it produces is offset by certified carbon credits. This means producing this material adds **zero net CO2 to the atmosphere.**

### Other Environmental benefits:

- Extending the life of a raw material resource.
- No landfill.
- Recycling in an energy efficient way.
- Reduction of greenhouse gases produced.\*
- No pollutants in the water or environment.

\* For every kilowatt-hour of electricity produced, a proportion of CO2 is emitted to the atmosphere. For example, one kilowatt-hour of electricity produced by burning brown coal will emit approximately one kilogram of CO2 into the atmosphere. (US Dept of Energy and EPA, July 2000.)

L'ORÉAL  
PROFESSIONNEL

# Technical Background: **Materials**, Design and Manufacture.

## PP versus PVC

- Polypropylene (PP) is one of the most neutral plastics containing only two elements: carbon (C) and hydrogen (H).
- PVC (polyvinyl chloride) plastic, commonly referred to as vinyl, is a hazardous consumer product.

## 100% Recycled PP versus Paperboard

- Production uses 8% of the energy that recycled paper uses.
- Creates no polluted water, unlike recycled paper.
- Contributes much less CO<sub>2</sub>e than recycled paper.
- Does not emit greenhouse gases in landfill (all cardboard does).
- Waterproof, durable and can be used many more times than recycled cardboard.

L'ORÉAL  
PROFESSIONNEL

# Technical Background: Materials, Design and Manufacture.

## True to playball brand

- Round shape (ties into all other playball branding material).
- Spinner reinforces the “play with me” message and encourages product interaction.
- Yellow, orange and pink graphics tie product and POS display together.
- Design works in synergy with the packaging design.

## Functional for consumer convenience and playball fun!

- 360 degree spinning unit makes product testing easy.
- 3 units in 1! Product, take-away information card, and photographic header tell 3 stories and promote 3 new products equally and with good distinction.



L'ORÉAL  
PARIS  
PROFESSIONNEL

# Technical Background: Materials, Design and Manufacture.



L'ORÉAL  
PARIS  
PROFESSIONNEL

# Technical Background: Materials, Design and Manufacture.

## Design and Manufacture: D4S

“D4S goes beyond how to make a green product and embraces how to meet consumer needs on a social, economic and environmental level.”

The L’Oreal playball Counter Glorifier design uses this ideology from the moment the polypropylene sheet is manufactured, through the design process and to the end of its post-industrial life where it is recycled again.

The L’Oreal playball Counter Glorifier design considers the environmental benefits and impacts of the product along with its

- Cost
- Function
- Performance
- Durability
- Availability
- and Safety.

All design, sheet extrusion, product manufacturing and post-industrial recycling is conducted in one site location. This keeps a tight supply chain and allows all scrap from jobs to be recycled again. Only one material is employed, apart from the spinner-base that has been designed to be unclipped and reused on future executions.



# Technical Background: Materials, Design and Manufacture.

## *Summary: the L'Oreal Playball Counter Glorifier Adopts the Principles of Design for Sustainability*

- Manufactured from 100% RECYCLED Australian made polypropylene.
- Only 1 material is used. The spinner base is to be re-used.
- Tight supply chain.
- VOC free inks. Art “straight to plate” – less set up resources.
- Designed to be shipped flat.
- Quick assembly.
- No glue is required.
- ALL other scrap from jobs is recycled again.
- Light weight material.
- Long lasting design - durable material.
- Innovative aesthetic.
- 100% RECYCLABLE! At the end of POS life, the entire unit can be placed in household kerbside recycling bin (PP). (Apart from the spinner base which is reusable)



L'ORÉAL  
PARIS  
PROFESSIONNEL

## Summary and Thanks

Synergy between: **Brand owner environmental policies, product, and packaging.**

- D4S
- SLF
- Carbon Neutral – **ecologia**
- **100% quality packaging**



**You don't need to compromise on aesthetics, quality, cost to be doing your bit for the environment.**