

**TO: COMPANY ANNOUNCEMENTS OFFICE  
ASX LIMITED**

**DATE: 25 AUGUST 2009**

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**CARDIA PRESENTS AT AUSTRALIAN PACKAGING SUMMIT 09**

The Board of Cardia Bioplastics Limited advises that it has accepted an invitation to present a paper at the Australian Packaging Summit 09 to be held in Melbourne today.

The Summit focuses on Sustainability, Innovation and Regulation of the Packaging Industry and Cardia's Managing Director Dr Frank Glatz will present a paper titled "Cardia Bioplastics- "Sustainability Success Story" in the Bioplastics and alternative technology segment of the Summit.

A Copy of Dr Glatz's presentation document is attached.

**CARDIA LAUNCHES INTERNET SITE: [www.cardiabioplastics.com](http://www.cardiabioplastics.com)**

The Board of Cardia is pleased to advise that it has today launched a new internet site.  
**[www.cardiabioplastics.com](http://www.cardiabioplastics.com)**

Pat Volpe  
**Chairman**

# Australian Packaging Summit

## 25/26 August 2009



### Case Study - Sustainable Packaging



# Presentation Overview

- Sustainable Packaging
  - Overview, key drivers and market dynamics
- Cardia Bioplastics Case Study
  - Business overview
  - Learnings and successes

# Plastics Packaging



# Plastics Packaging Overview

- Global plastics packaging market worth \$180B in 2009
- Drivers for growth
  - Economic development, societal trends, increasing demand for convenience and pre-prepared foods, decreasing household sizes
- Drivers for change
  - Made from oil – finite resource with volatile pricing, carbon footprint, green house gas emissions
  - Mostly short-term use – waste disposal and litter issues
  - Government legislation and taxes
  - Major brand owners and retailers looking for sustainable solutions
- Sustainable and renewable packaging estimated to be <1% of plastics packaging market with exponential growth potential



## Government legislation and taxes

- Irish tax for plastic shopping bags (Aug 02)
- South Australia (May 09) and State of California ban of plastic shopping bags (certified compostable bags exempt of ban)
- German exemption of DSD fee for certified compostable material
- New China packaging regulation (June 08) forbids free handout of plastics shopping bags and encourages renewable content in bags
- US Government's Federal “green” procurement preference program
- France, Italy, Bangladesh, Singapore, Taiwan, India and Mexico legislation initiatives on addressing shopping bags

# Cardia bioplastics™

Renewable Resource Based Plastics and Sustainable Packaging



# About Cardia Bioplastics

- Australian company established as Biograde in 2002
- Listed on Australian Stock Exchange (ASX code: CNN)
- Global developer, manufacturer and marketer of sustainable resins and packaging derived from renewable resources

**Cardia**  
biohybrid™

**Cardia**  
compostable

**Cardia**  
bioproducts



**Cardia**  
bioplastics™



# About Cardia Bioplastics

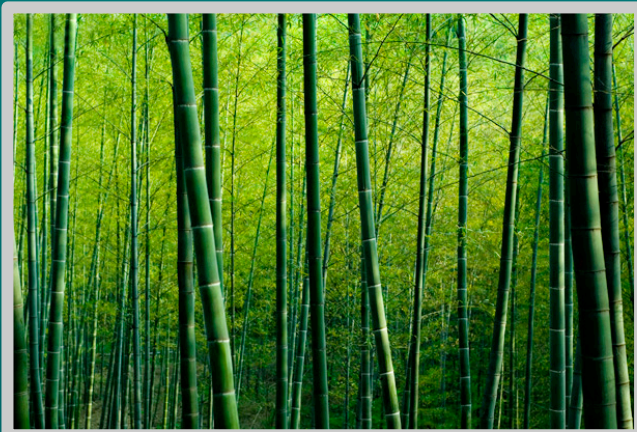
- Sales to high profile packaging users
- Exclusive supply to Beijing 2008 Olympics and Paralympics
- AustCham China Business Excellence Award 2008
- 2009 CleanEquity Monaco Conference Award for Excellence in Environmental Technology Commercialisation



# About Cardia Bioplastics

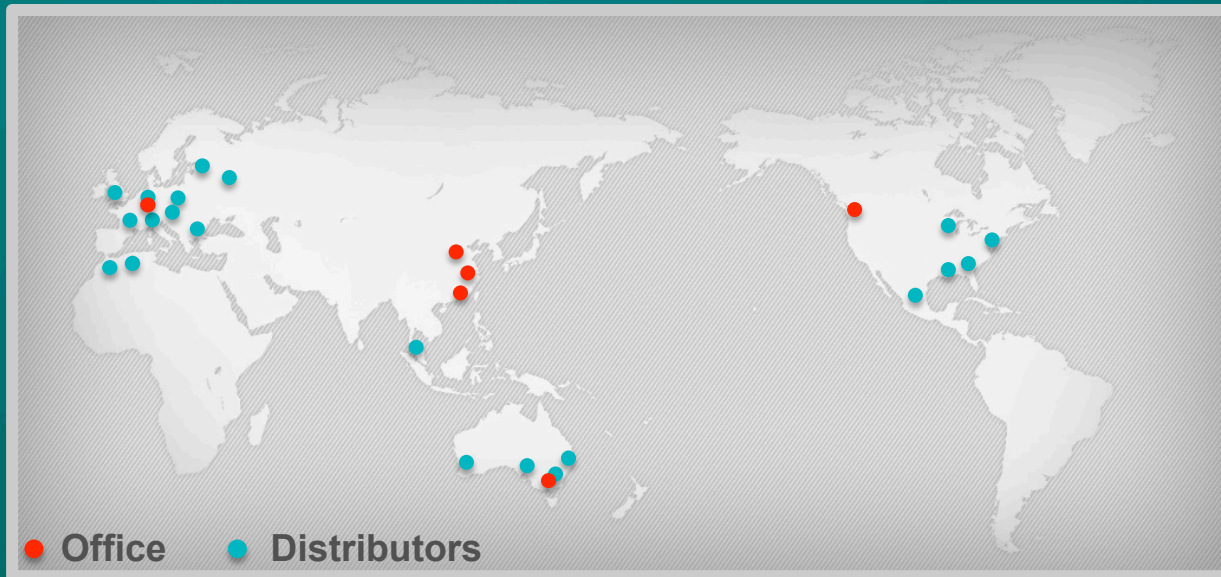
- Extensive intellectual property and patent position
- Products accredited to international standards, ISO9001 certified
- Cost-effective manufacturing in Nanjing, China
- Established global operations and distributor network
- Engaging with leading consumer goods and global packaging companies

**‘Leading Supplier of Renewable and Sustainable Resins to the Global Packaging and Plastics Products Industries’**

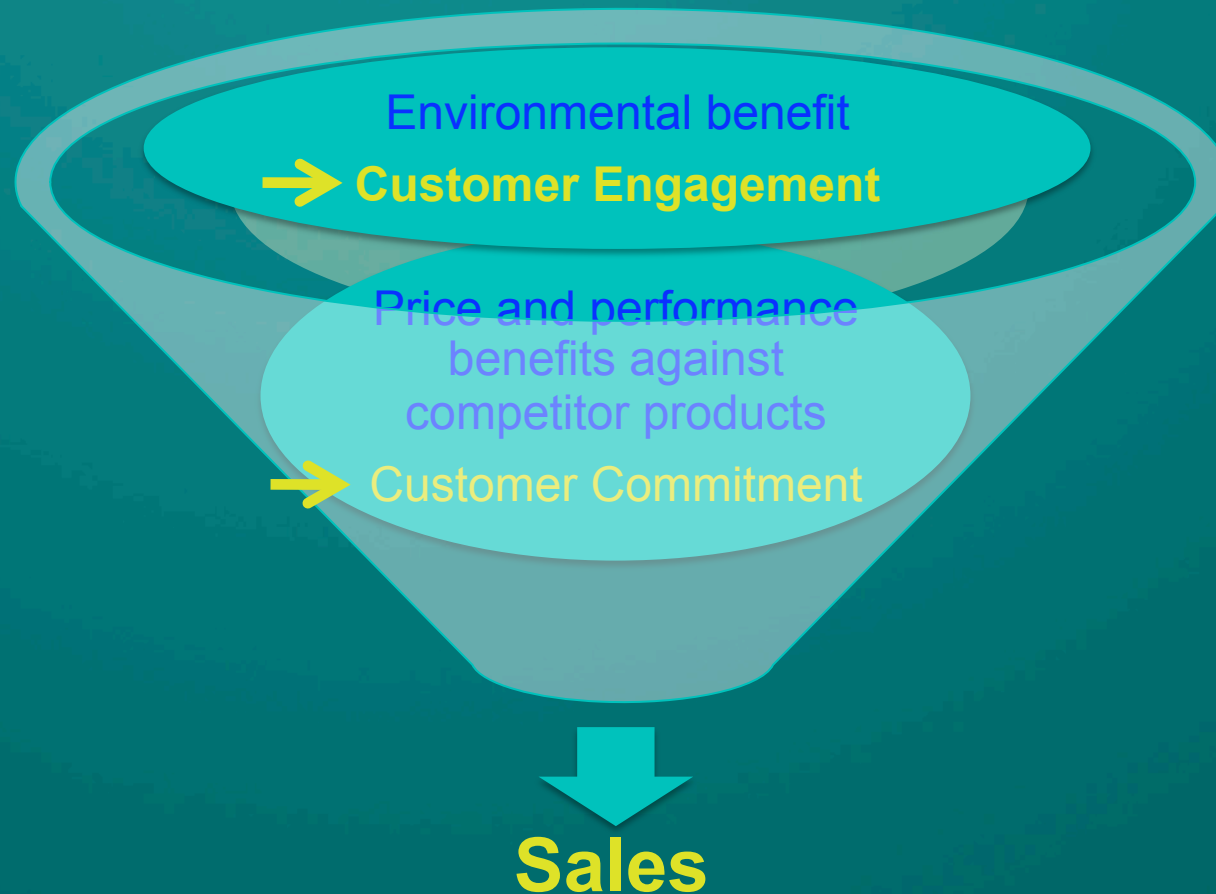


# Cardia Bioplastics Operational Profile

- Corporate and operational centre in Melbourne (Australia)
- Manufacturing and product development in Nanjing (China)
- Additional operational offices in China, USA, Germany
- Established global distributor network



# Delivering Sales

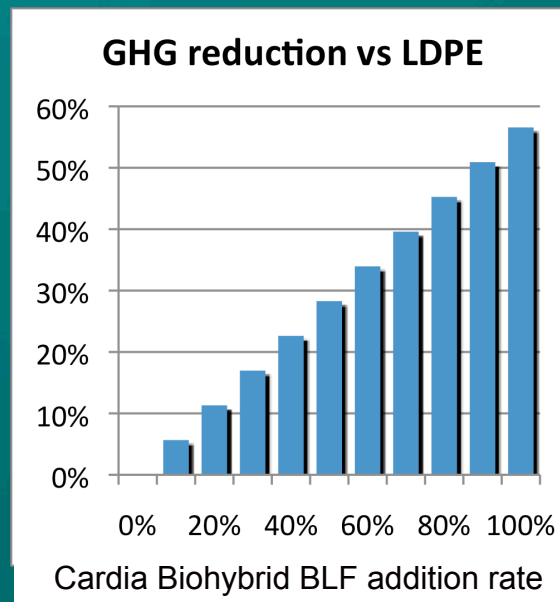


→ Communication of environmental benefit at market launch

# Cardia Bioplastics Environmental Benefit



- Compatible blend of renewable thermoplastic resins and traditional polyolefins
- Increases the renewable content of standard plastics
- Reduces carbon foot print and GHG emissions





# Cardia Bioplastics Environmental Benefit

**Cardia**  
compostable

- Derived from renewable resources
- Fully biodegradable resins certified to international standards for compostability



**Cardia**  
bioproducts

- Customer service: design, development and production of ready to use film and bag products

**Choice of sustainability packaging**

**Cardia**  
bioplastics™

# Cardia Bioplastics Value Proposition

- Ability to tailor resins to customer requirements from cost-effective Cardia Biohybrid resins to Cardia Compostable resins with specific functional benefits
- No additional capital required for conversion of Cardia Bioplastics resins by manufacturers

## Specialty Plastics

PA, PVOH, EVOH, PVDC

Resin price: \$(4-8)/kg

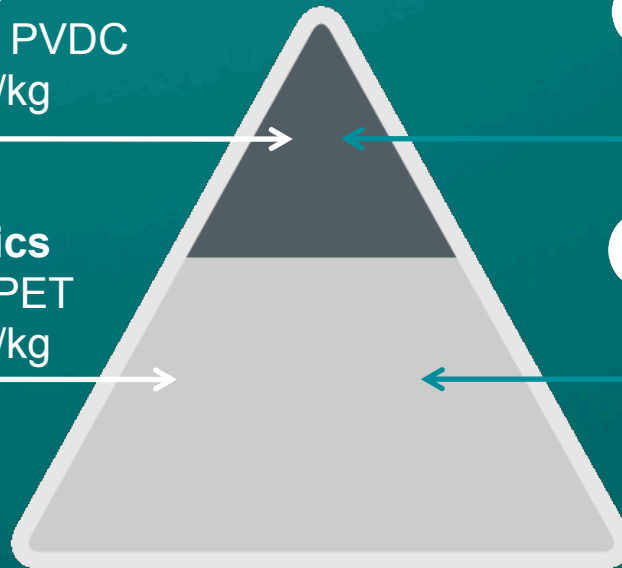
Cardia  
compostable

## Commodity Plastics

PE, PP, PS, PVC, PET

Resin price: \$(1-3)/kg

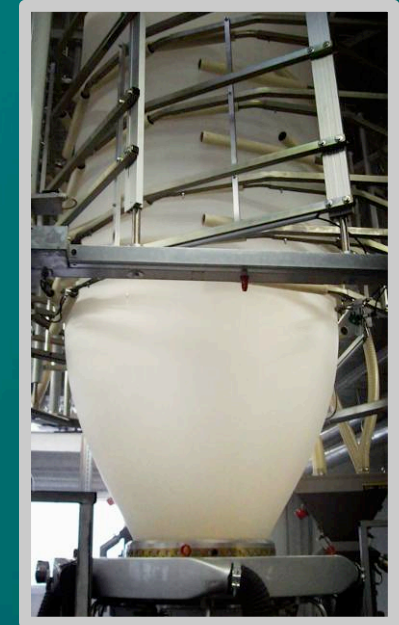
Cardia  
biohybrid™



Cardia  
bioplastics™

# Cardia Bioplastics Product Performance

- High-performing packaging resins with a wide processing and application window
- Global application development and support to tailor resins to customer requirements
- Broad product range covering both Cardia Biohybrid Resins and Cardia Compostable Resins
- Resin supplier for standard packaging applications and/or joint application development with leading packaging companies



**A simple, cost effective way to achieve more sustainable packaging**

# Cardia Bioplastics Applications



# Cardia Bioplastics Applications



## Enhancing Packaging Performance

- High performing packaging films with thin gauge capability ( $\geq 8$  micron) and excellent aesthetics
- Robust injection moulding, blow moulding and foam products
- Tailor products to customers' performance and sustainability requirements
- For further information: [www.cardiabiooplastics.com](http://www.cardiabiooplastics.com)