



Center of Excellence on Green Productivity Asian Productivity Organization

Economic Development and **Green Packaging**

> Tong-Ho Tsai President Cheng Loong Corp. November 04, 2014

Company Overview



Founded in 1959 (Publicly listed in 1971)

% PM10

Consolidated Revenue NT\$ 43.8 billion (FY2013)

Number of Employees 6,929

Margest industrial paper company in Taiwan

Manked 55th on the list of World's Top 100 paper companies

 \searrow 5 paper mills (2.2 million tonnes) and 26 box plants (1,958 million m²) in Asia.

Interprime primary packaging supplier of global renowned branded companies.



Main Products

Leading position in major market segments
 Providing green packaging & design services for domestic & international branded end users





Fine Paper



Corrugated
 Packaging



Household
 Product





Solutions Provider

Global Logistics



Economic Development & Green Packaging

- **Economic development**
- **Commercial activities increase**
- Income improvement
- Robust growth of packaging & logistics



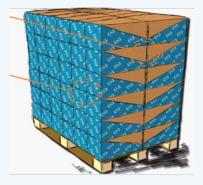


Packaging should coupled with the concept of sustainability



Sustainable Packaging Meets

- Physical protection
- Consumer convenience
- Communication
- Reduction in material usage
- Recyclability & Reusability
- Cost
- From petro-chemical to biochemical or biodegradable material









Sustainable Packaging Needs

Support of manufacturers, end users and governments on :

- Usage of eco-friendly materials
- Clean production
- Less weight, less carbon
- Carbon footprint
- Green consumption









The world is changing



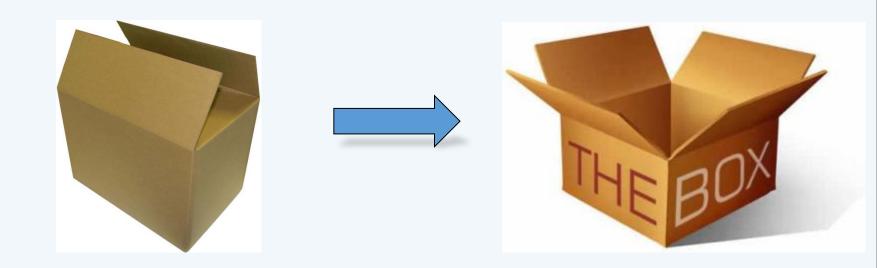


The old standard

The iPhone



The world is changing



The old standard

Green Packaging = Sustainable Packaging





The past

Protection/Transportation



Now

- Protection/Transportation
- Safety/Hygiene
- Marketing
- Innovative design
- Eco-friendly







Case Study- Superior Protection



Packaging for Power Supply



Features:

- Eco-friendly:
 - Use paper cushion to replace EPS
- Easy to produce & assemble: Integrated design for upper and lower cushions without the use of stitches
- Superior protection:

Product is well protected in the central of the packaging

TAPPI CorrPak Award Winner

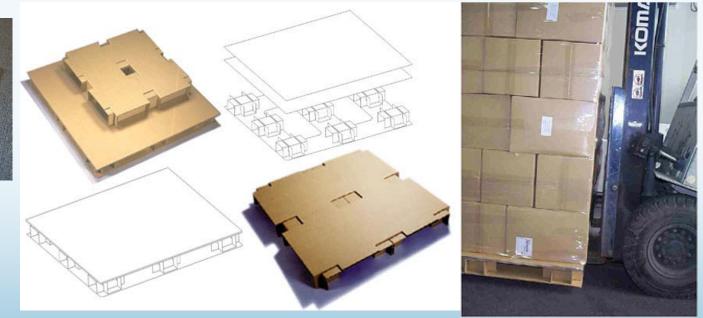


Case Study- Transportation

Green Paper Pallets

- Contains over 80% recovered paper
- Ready to carry a variety of goods, suitable for one way market and no fumigation certificate is needed.
- Obtained patents in many countries.







Case Study- Product Marketing

Reuse: Specially designed to fulfill both transport and display functions



Case Study- Innovative Design

Clothing Packaging

- Customer introduction: with innovative & integrated services focusing on laundry & logistics, JE(潔衣家) is available at convenience stores nationwide.
- Outer box (patent# 099224451) & Inner box designed for suits(patent#100101542)

Features:

- 1. Material simplification (one piece design)
- 2. Recyclable
- 3. Lower material cost
- 4. The handle supports up to 2 kg
- 5. Keep the suits in smoothness

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Case Study- Innovative Structure

Display Protective Inserts (for SONY VAIO LCD)



Features:

- Easy to assemble: Reduce the number of parts
- Less weight, less carbon: Smaller packaging to save space & cost.
- Superior protection: Product is well protected in the central of the packaging
 - WorldStar Awards
 Taiwan Packaging Star
 Taiwan Design Award.



Case Study- Reuse

Reuse of Fruit box

Reduce

- Decrease 15% of packaging volume to save shipping cost
- Recycle
 - Use recyclable material and water-based ink
 - One piece design, easy to recycle
- Reuse
 - Can be easily transformed into a storage or display box





Superior Packaging Design in EPA Green Packaging Design

(*EPA, Environmental Protection Administration)



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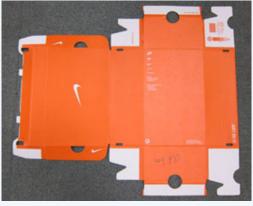




Case Study- Eco Friendly

Reduce & Cost saving

- Decrease packaging volume while preserving same function.



Old Design



New Design





Case Study- Green Product

Cushion Packaging for Notebook

- One piece design: Reduce material management and is easy to pack
- Cost down: Save up 20% of packaging material to lower cost of warehouse and shipping



Green Packaging Design Award Winner



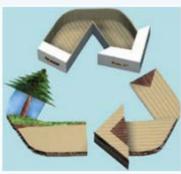
Packaging is the value driver in the supply chain



Supportive for product sales



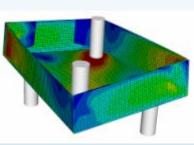
Informative & Promotional



Sustainable



Safe & Hygienic



High-tech & Innovative



Superior Protection



Ideal logistic partner



Packaging can be reproduced into paper and recover energy after recycling

- Post-consumer packaging can be recycled as the raw material of packaging paper.
- Recovered paper (known as waste paper) contains impurities which can be sorted out and processed into biomass fuel to supply heat & electric energy for papermaking process, as a result, reduce reliance on fossil fuels.
 - \rightarrow In line with the principle of energy conservation and carbon reduction.

Packaging can be reproduced into paper and recover energy after recycling (Cont'd)





Recovered paper



Process Rejects







CFB fluidized Boiler Co-generation System



Green packaging is more for sustainable development

- Asia is the hub of global economic growth & manufacturing
- Paper packaging accounts for 62% of the whole packaging need for business activities
- Asia represents 48.5% of the world corrugating shipments

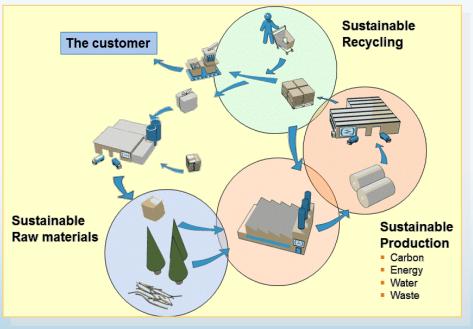


Asian economic development should both focus on and adopt green packaging to meet sustainable development

CLC – Asian leading paper company

Initiates for less carbon, less weight & green packaging as our vision and continuously pursues :

- Energy conservation & carbon reduction
- Recycle & reuse of materials
- Light-weighted product
- Green & Clean production
- Green opportunities





CLC- Green Partner









Thanks for your attention!

