



**Asia-Pacific
Economic Cooperation**

2016/SMEWG43/039
Agenda Item: 21.7

Enhancing SMEs in GVCs: From Manufacturers to Solution Providers

Purpose: Information
Submitted by: Chinese Taipei



**43rd Small and Medium Enterprises Working Group
Meeting
Lima, Peru
7-8 September 2016**

 **43rd APEC SMEWG Meeting**
Item 21.7
**Enhancing SMEs in GVCs: From
Manufacturers to Solution Providers**
Best Practices in Circular Economy
Chinese Taipei
September 8, 2016



 ***Chinese Taipei is an exceptional player and at the
head of the “green innovative technology” game***


**FIFA WORLD CUP
Brasil**


Rio2016



~ Recourse: Le Figaro, 25 June 2014

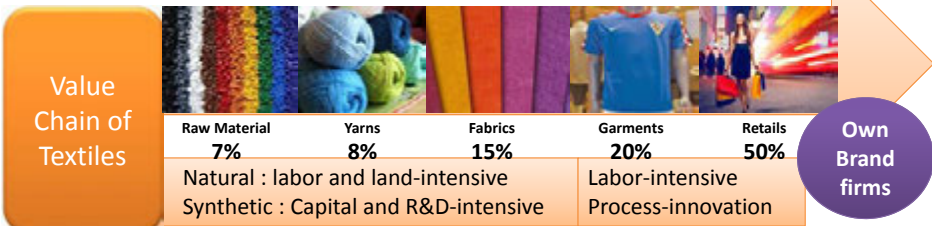
Great Sport Events : Behind the Super Stars

These products contributed about 150 billion USD to the output of Chinese Taipei



- **32 teams** from the world.
- Business opportunities reach **40 billion**, textiles are the largest among it.
- **10 teams** and **70%** of the functional textiles from Chinese Taipei.
- **High-profile sporting goods** for the world champion athletes.

Textiles Industry : Value Chain and the Performance of Chinese Taipei (1/2)

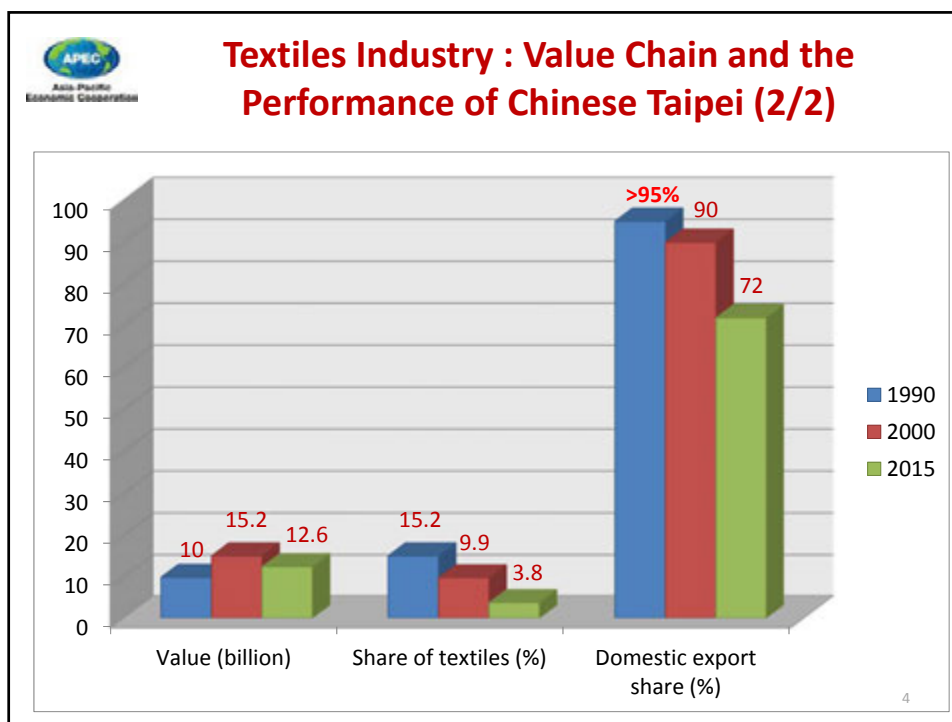



Raw Material	Yarns	Fabrics	Garments	Retails
7%	8%	15%	20%	50%
Natural : labor and land-intensive Synthetic : Capital and R&D-intensive			Labor-intensive Process-innovation	

Own Brand firms

Textiles industry in Chinese Taipei


- **Garment-centric in 1990 :**
one of the dominant export goods and began to establish overseas factories.
- **Fibers and fabrics-centric in 2000s :**
Fierce competition from emerging economies.
Transform product from garments to fibers and fabrics.
- **From Manufacturers to Solution Providers after 2010s :**
Environment-friendly functional textiles for the sporting goods MNEs.



 **Alignment with Circular Economy (1/1)**

Advocates

- **Pearce and Turner(1989)**
“Economics of Natural Resources and the Environment”: Traditional economy treat the environment as a waste reservoir. To optimize the economic systems rather than components.
- **McDonough and Braungart(2002)**
“Cradle to Cradle: Remaking the Way We Make Things”: To reduce, reuse, and recycle the products after the end of their useful life. To treat them as the nutrients that can re-enter the environment or remain in the industrial cycles.
- **Ellen MacArthur Foundation(2012)**
 Show evidences that circular economy can **save the manufacturing costs** while **create more new business opportunities**.





Alignment with Circular Economy (2/2)

Peru's APEC Strategy for Sustainable MSMEs

APEC Economic Leaders' Declaration (2014)


"In response to important energy and environmental issues, we ... commit to cooperate on ... circular economy..., in pursuit of green, energy efficient, low-carbon development and of new economic growth sources.

EU Action Plan for the Circular Economy (2015)

To recycle more than **65%** of waste and reduce the landfill to **less than 10%** in 2030.




6



The recycling of PET bottles to Functional Textiles (1/2)

The polymer family



PS

PE

PP

PC


PET

PVC

- inexpensive, durable and versatile
- endless variety of applications, from shopping bags to clothing.

- Limited Biodegradability
- Ingredients of environmentally harmful chemicals.
- health hazards to wild animals

4% of the oil produced goes to making polymers



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The recycling of PET bottles to Functional Textiles (2/2)

The Niches for Chinese Taipei

✓ **Recycling performances**
Overall wastes: more than 45%
PET bottles : more than 100%

✓ **Up-grade recycling**
Transform PET to technical fibers
Embed other functional elements to the fibers
Provide the own-brand sporting goods firms the **environment-friendly solutions** for their products.












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Best Practice Case Study (1/2)

SINGTEX® → Approved by Cradle to Cradle Certified™ Basic

Introduction

- Established in 1989.
- Created the S.Café® series of environment-friendly yarns, fabrics, and clothes.
- Keep high-growth of about 22% CAGR in 2009-2013

Solution Provider

- Catch the consumption trends and fit the market demands
- Allocate 3.5% of revenue in environmental products R&D.
- Provide functional fabrics and on-demand clothes for sporting goods firms, such as Nike, North Face, Puma, Mizuno, ...etc, and even sport series of Victoria Secret.
- Co-brand with international firms, such as Sun Valley of France






 **Best Practice Case Study (2/2)**


SINGTEX® → *Sing a Lovely Textile Song*


Circular economy model 

- Cooperate with coffee shop to recycle the coffee grounds and distill the deodorant factor and useful oil.
- Recycle the PET bottles and combine the deodorant factor of coffee with the fibers from PET bottles.




2013. Feb. 14th Première Vision Daily News
Recycling : More than just Fashion

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