

# Current status and development of carbon footprinting and carbon labeling in Taiwan

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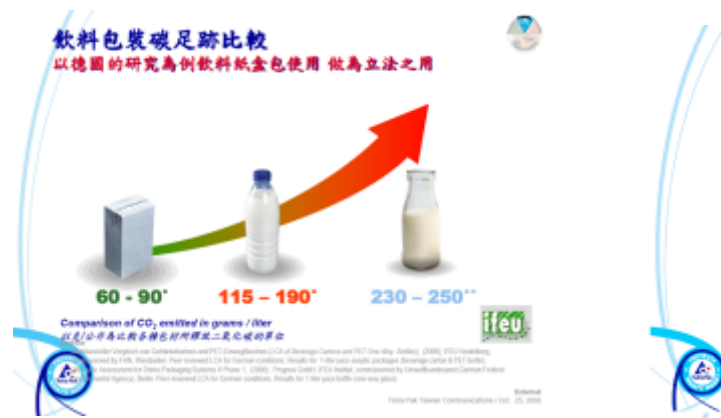
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# Outline

- **Introduction**
- **Taiwan Carbon Footprint Labeling**
  - calculation and review process
  - Examples of products
  - Promotion
  - Difficulties and resolving methods
  - Partnership of government, business, and consumers
  - Future Development Plan
- **Conclusion: Forward looking and future cooperation**

# First product carbon footprint analysis in Taiwan- Tetra Pak (2008/10)



LCA – carbon footprint report by ITRI



# The first LCD panel got carbon footprint certified– ChiMei (2009/8)

15.4" notebook panel, it is based on PAS 2050 and certified by DNV



# The first wafer got carbon footprint certified of the world - UMC (2009/9)



## Carbon Footprint Approach –

### Achievements

- > Carbon Footprint for Product
- > Carbon Footprint Verification (reasonable assurance)
- > Carbon Disclosure (CDP)
- > Internal Carbon Reduction



# The first notebook got carbon footprint certified of the world – Asus (2009/10)



TEEMA (Taiwan Electrical and Electronic Manufacturers' Association) announced its own carbon footprint logo on 11/05/2009

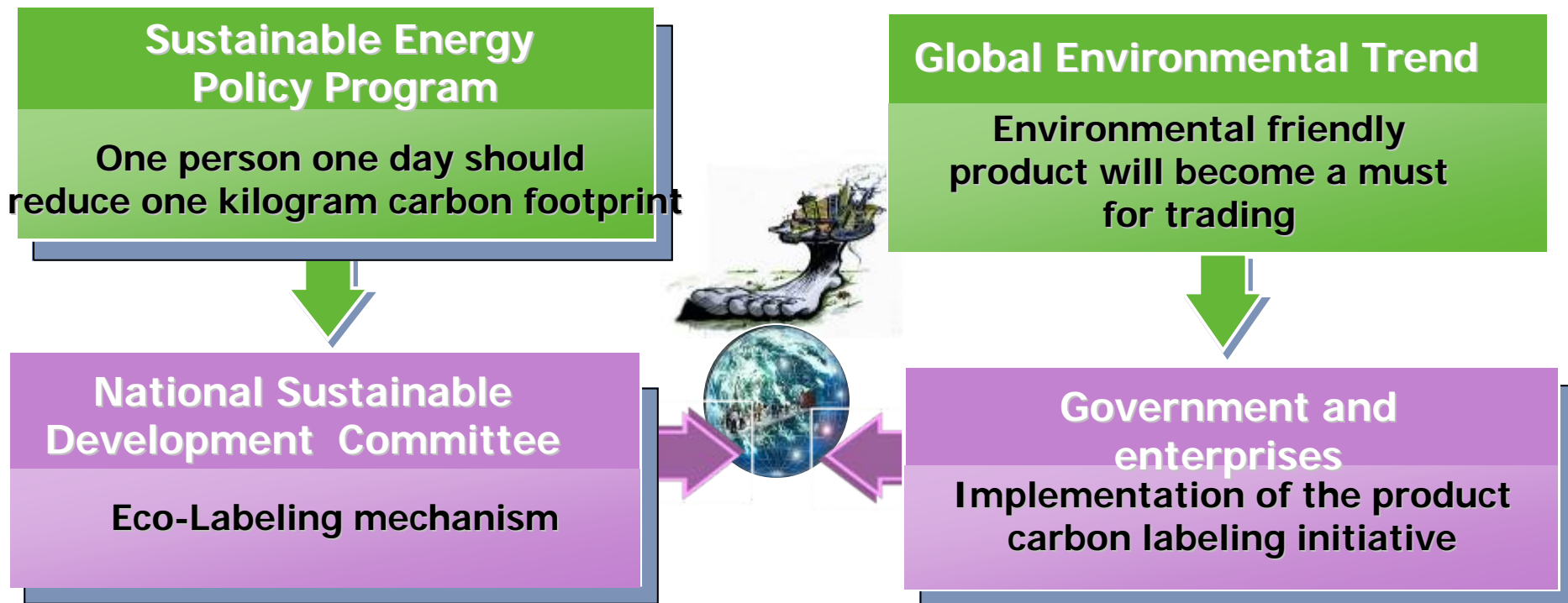


The first beverage got carbon footprint certified in Taiwan– HeySong Sarsaparilla (2009/11)



303g CO<sub>2</sub>e/600ml

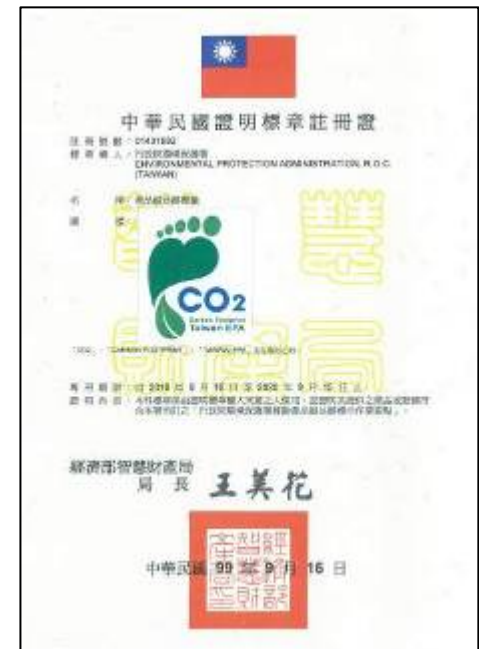
# Reasons of promoting carbon labeling in Taiwan



我國**2006**年人均二氧化碳排放量國際排名第**22**，國際減碳共識，已對我國產生潛在壓力。

# Carbon Label Design Competition

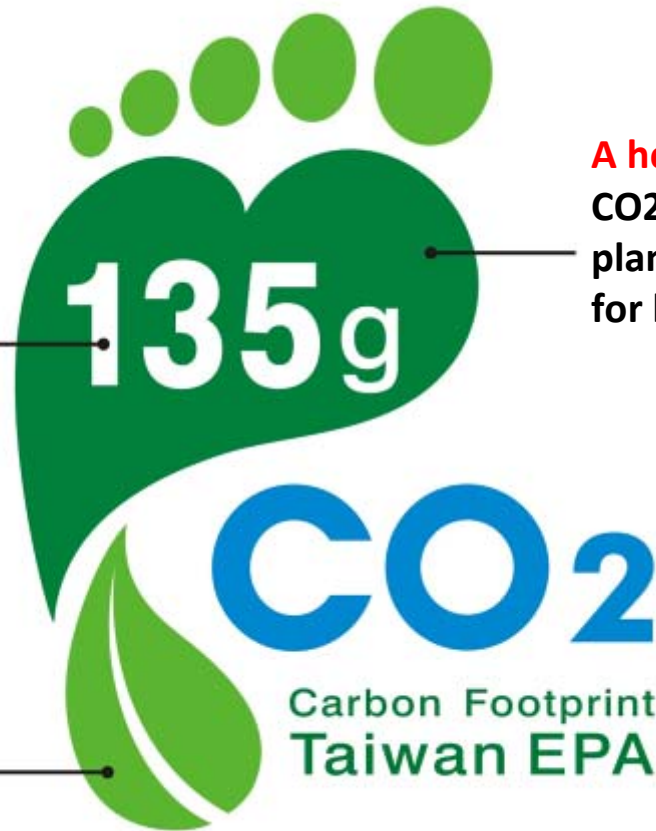
- During 2009/9/23~2009/10/23, totally **1,286 works were submitted.**
- The best one was selected and awarded on Dec. 15<sup>th</sup>, 2009.
- Taiwan's carbon label was officially registered and got certified on Sept. 2010.



# Taiwan Carbon Footprint Labeling

## --Illustration of “Taiwan Carbon Footprint Label”

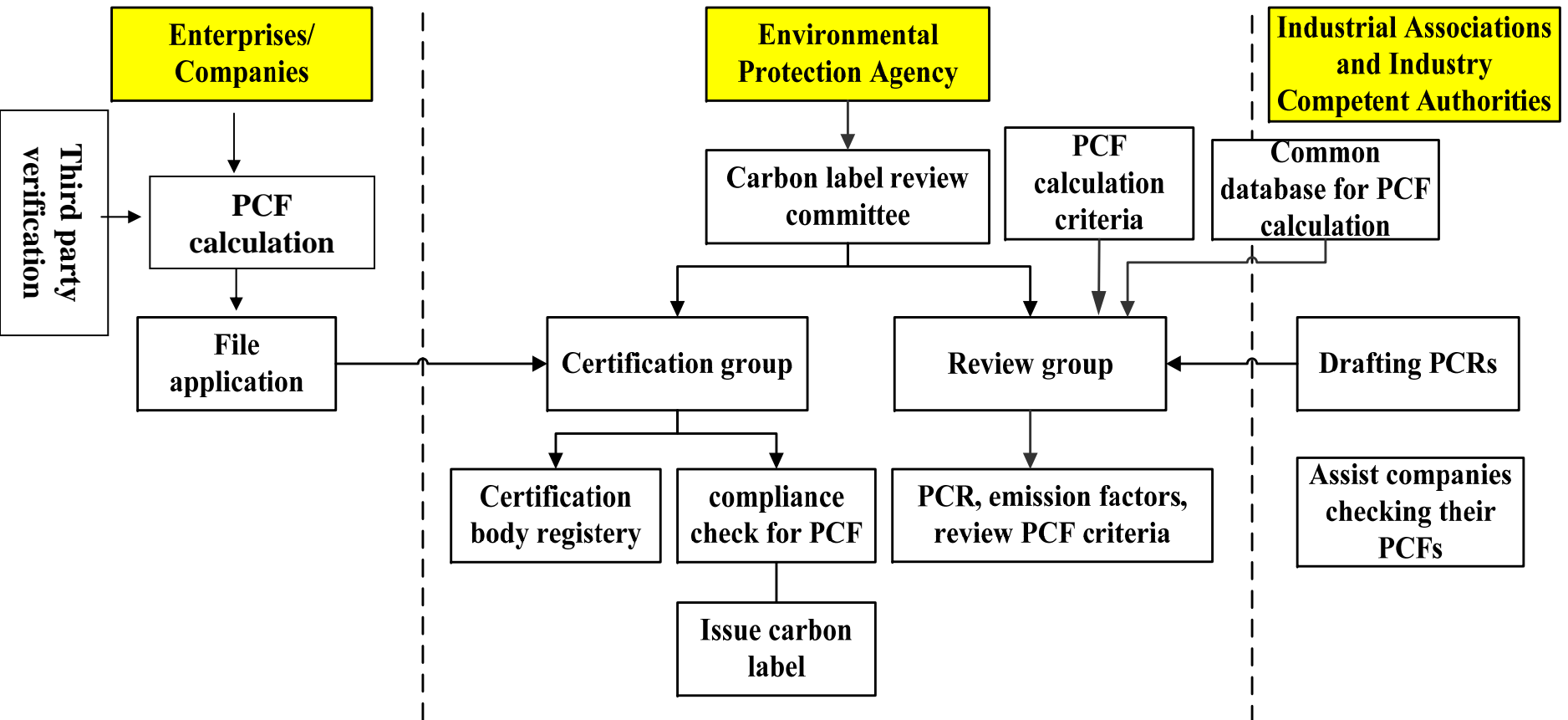
The number stands for “**carbon footprint**,” and is the CO<sub>2</sub> emission equivalence calculated based on the materials and energy consumed during the life cycle of the product.



**A heart that loves the nature;** CO<sub>2</sub> reduction for a “cool” planet; and green consumption for low-carbon society

**Green leaf** stands for health and environmental friendliness

# Implementation Framework



# The Awareness of and Attitude toward Carbon Label of Taiwan Consumers

- I. Interested in product carbon label
- II. Try to protect the environment through buying carbon labeled products
- III. Will consider carbon labeled product in the future

I: Agree 67%



II: Agree 88%

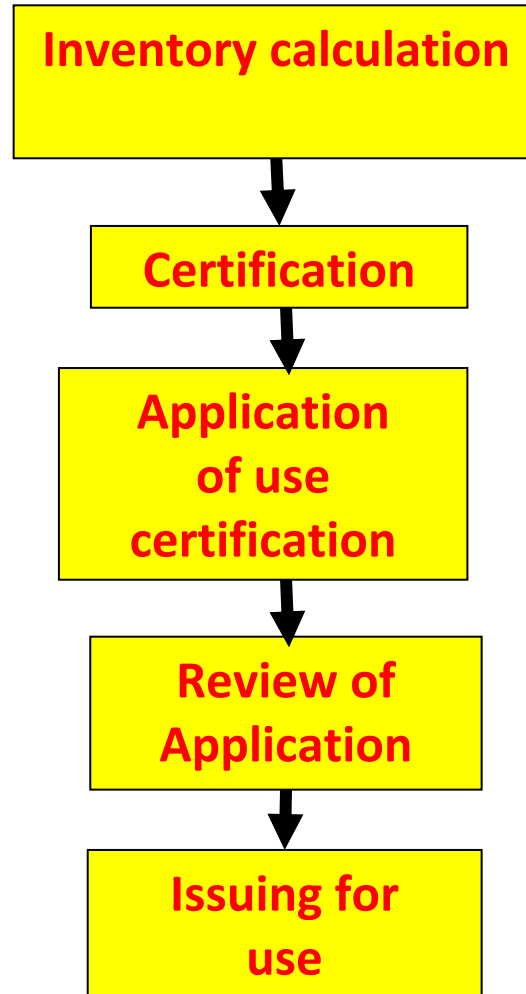


III: Agree 84%



Questionnaire made : Aug – Sep 2009,

# The calculation of product carbon footprint and the carbon label review process



# Guide of carbon label number

- Units: g,kg, t , Rule: listed in table below

(CO2e/Functional unit)	Labeled number
>10g, <=20g	1g
>20g, <=40g	2g
>40g, <=100g	5g
>100g, <=200g	10g
>200g, <=400g	20g
>400g, <=1000g	50g
>1.0kg, <=2.0kg	0.1kg
>2.0kg, <=4.0kg	0.2kg
>4.0kg, <=10kg	0.5kg

Note : >10kg , use the same rule for labelled numbers



# Demonstration for products carbon footprints



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- In addition to the 7 products of 5 companies that have been issued with the Taiwan carbon labels, there are notebooks, ADSL routers that are issued with Taiwan carbon labels recently ◦
- Taiwan EPA is working with 10 industrial associations on the development of product category rules (PCR) and carbon footprint.
- Taiwan EPA selecte 11 products for the demonstration of products carbon footprint. , they will complete the verification, review and obtain the Taiwan Carbon Footprint Label by the end of 2010.

# Promotion of Product Carbon Label with Internet

- Setting up “Taiwan Product Carbon Footprint Information Clearing house” (<http://cfp.epa.gov.tw>)

Starting on May 10, 2010

- X Axis and Y axis :
  - Y axis: provision of news and other ten categories of information on product carbon labels
  - X Axis: for six categories of users in accessing carbon foot print information

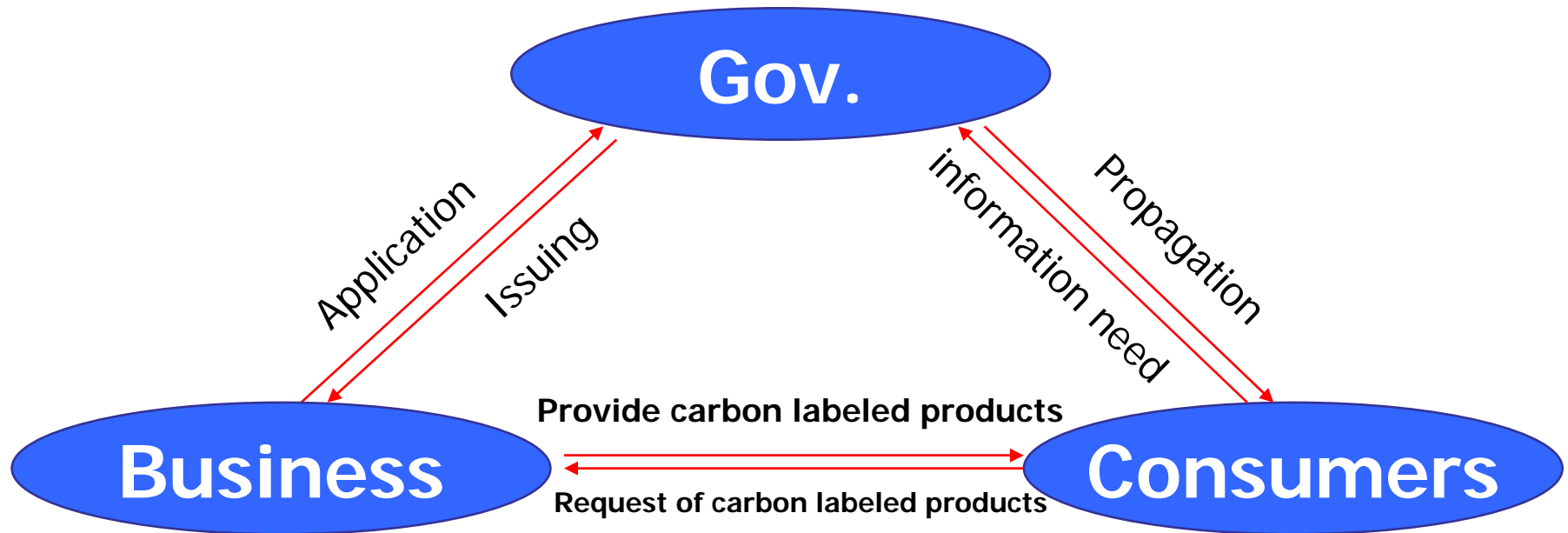


# Difficulties met by businesses and Resolving methods

**No global standard of carbon footprint calculation yet, and need to consider cost of calculation and certification**

- **Publicize “Guide of Product Carbon Calculation” and “Guide of Product Category rule” to unify calculation scope and method**
- **Build up CO2 emission data of product upstream and downstream**
- **Establish Product Carbon Footprint Calculation Center**
- **Simplify review process of the third party certification and speed the issue of the label**
- **Strengthen the training of human resource on carbon footprint calculation and certification together with Industrial Agencies and develop the training materials**

# Government, Business, Consumers Partnership



# Future Development Plan of Carbon Footprint Label

Stage	Goals	Promotional Strategy
1st	<ul style="list-style-type: none"> <li>■ Certify carbon footprint calculation criteria and method</li> <li>■ Set up carbon label system</li> </ul>	<ul style="list-style-type: none"> <li>■ Universal appearance of carbon label</li> <li>■ Set up the system, application, issuing, awarding the voluntaries</li> </ul>
2nd	<ul style="list-style-type: none"> <li>■ Make Product Carbon label the popular trend</li> <li>■ develop low carbon product label</li> </ul>	<ul style="list-style-type: none"> <li>■ link with ISO 14067</li> <li>■ set up product carbon footprint database, develop low carbon product label</li> </ul>



First stage:  
Carbon label



Second stage:  
Low carbon  
product label

TEEMA



EPA

B2C  
B2B

B2C

Carbon logo

Carbon footprint  
declaration

# Conclusion

## Forward Look

- Establish communication platform, continue to work with cross-ministries, academics and trade associations to promote product carbon footprint labeling system.
- Through different channels to promote product carbon footprinting and carbon labeling incorporate with carbon emission reduction.
- Set up public and private sector participation mechanism
  - make the carbon footprint disclosure as a compulsory requirement for Taiwan carbon footprint labels.
  - Retailers to make request to their suppliers to provide carbon labeling products.
  - Feature the low carbon products in the Government Green Procurement.
- Through international exchanges and cooperation to develop product carbon footprint labeling system, set up the mechanism for mutual authentication of product carbon footprint labels.

# Conclusion

## Future Cooperation

We believe that the visits to one another are a good way to understand how the systems of the other side is working, as well as to develop how the both of us will work in the future on issues such as the following:

- Both Parties to share the mechanism and experience for the product carbon footprinting.
- Both Parties to share the mechanism for mutual authentication of product carbon footprint labels. Including support in checking the carbon footprint of any stage of a product's life cycle.
- Both Parties will endeavor to arrange appropriate exchange visits for staff, and/or provide appropriate training programs.
- Both Parties to work together and exchange information on product carbon footprint labels system.



**Thank you for your attention!!**

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