

step

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# ADOPTION OF TECHNICAL INNOVATIONS

## EXPERIENCES OF LATIN AMERICA TIMBER SECTOR

2010 ITTO Market Discussions  
Yokohama, Japan

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**“DEVELOPMENT OF PRODUCTS AND INTRODUCTION OF INOVATIONS  
ARE A CONTINOUS PROCESS”**

**— NEW AND OLD TECHNOLOGIES ARE APPLIED TO DEVELOP  
ALTERNATIVES AND:**

**i) OTHER TIMBERS AND MATERIALS ARE COMPETING WITH TROPICAL  
TIMBERS**

**ii) NEW TROPICAL TIMBER PRODUCTS ARE OFFERED TO THE MARKET**

**IMPORTANT: CHANGES INVOLVES ALL MATERIALS AND PRODUCTS**



## CLASSICAL EXAMPLES OF ‘NEW WOOD PRODUCTS’ COMPETING WITH ‘PRIMARY TIMBER PRODUCTS’:

- **OSB/ ENGINEERED COMPONENTS**

- REPLACING PLYWOOD AND ALSO SAWNWOOD IN STRUCTURAL APPLICATIONS

- **MDF**

- REPLACING SAWNWOOD AND OTHER SOLID WOOD PANELS IN THE FURNITURE AND MOULDING INDUSTRY

- **RESULT: OSB AND MDF ARE GROWING 10-15% (OR MORE) PER YEAR.**



## **CHANGES IN THE RAW MATERIAL SOURCE HAS INFLUENCED:**

- **SECONDARY FOREST LOGS**
- **PLANTATION LOGS**

## **NEW RAW MATERIAL:**

- **SMALLER DIAMETERS**
- **LOWER DENSITY WOOD**
- **LESS DECORATIVE**
- **MORE TECHNOLOGY ARE APPLIED IN PROCESSING**



## EXAMPLE OF COMPETING PRODUCTS

- REPLACING VENEER AND TROPICAL DECORATIVE PLYWOOD
  - PAPER OVERLAY
  - HPL (HIGH PRESSURE LAMINATES)
  - COMPOSITE VENEERS
  - DIRECT PRINTING IN MDF AND MDP PANELS
  - OTHER TECHNOLOGIES
    - MAINLY APPLIED IN MDF / PARTICLEBOARD PANELS
    - USED IN THE FURNITURE AND FLOORING INDUSTRY
- **ALONG THE LAST DECADE DECORATIVE VENEER BUSINESS IN BRAZIL WAS REDUCED BY MORE THAN 50%**



## COMPETING PRODUCTS

### — DECORATIVE OVERLAYS



**PRINTED WOOD PANELS**



**PAPER FACED FURNITURE**



**MELAMINIC FLOORS**



## NEW TECHNOLOGIES APPLIED FOR TROPICAL TIMBERS

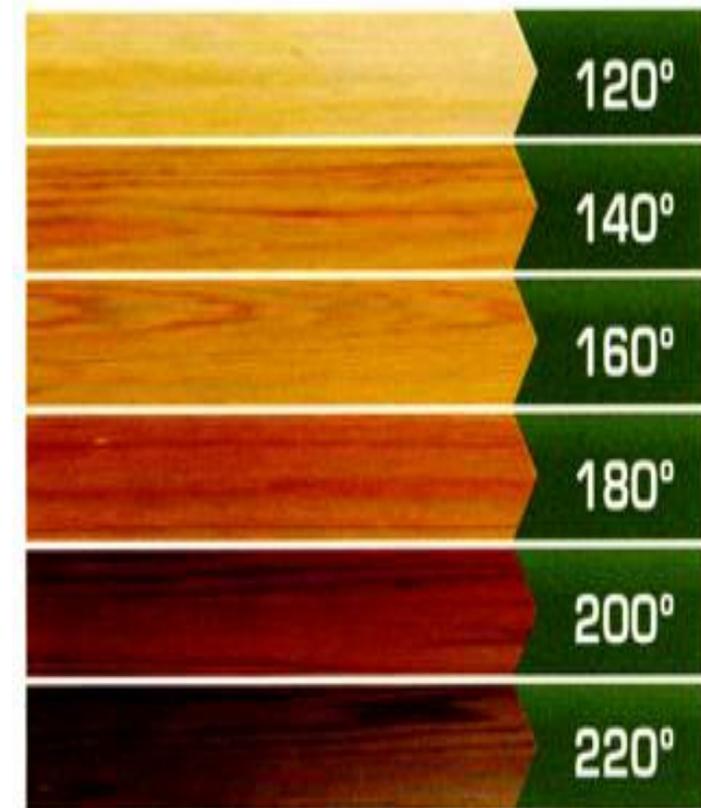
- THERMAL TREATED WOOD

- MAINLY APPLIED FOR PLANTATION WOOD

- TWO OPTIONS

- i) SAME SPECIES: DIFFERENT COLOURS

- ii) UNIFORMIZE COLOURS: FOR AND HIGH SAPWOOD





## NEW TECHNOLOGIES APPLIED FOR TROPICAL TIMBERS

- COMPOSITE PRODUCTS
  - LOW DENSITY CORE
  - HIGH DENSITY WOOD AT SURFACE
  - OTHER MATERIALS APPLIED TO THE SURFACE
    - Example: Aluminium Sheets



## CONCEPT OF WOOD COMPOSITE PRODUCTS

— MAINLY APPLIED IN THE WOOD PANELS INDUSTRY

— MAIN OBJECTIVE

REDUCE THE WEIGHT AND PROTECT SURFACE FROM  
DAMAGES

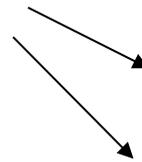
— SUFFICIENT STRENGTH FOR MOST APPLICATIONS

— EASY TO TRANSPORT AND TO ASSEMBLY



## EXAMPLE OF COMPOSITE WOOD PANEL

High Density Wood



Balsa Wood Core



- NORMAL MDF PANEL: 600 – 800 KG/M<sup>3</sup>
- COMPOSITE WOOD PANEL: 200 – 300 KG/M<sup>3</sup>



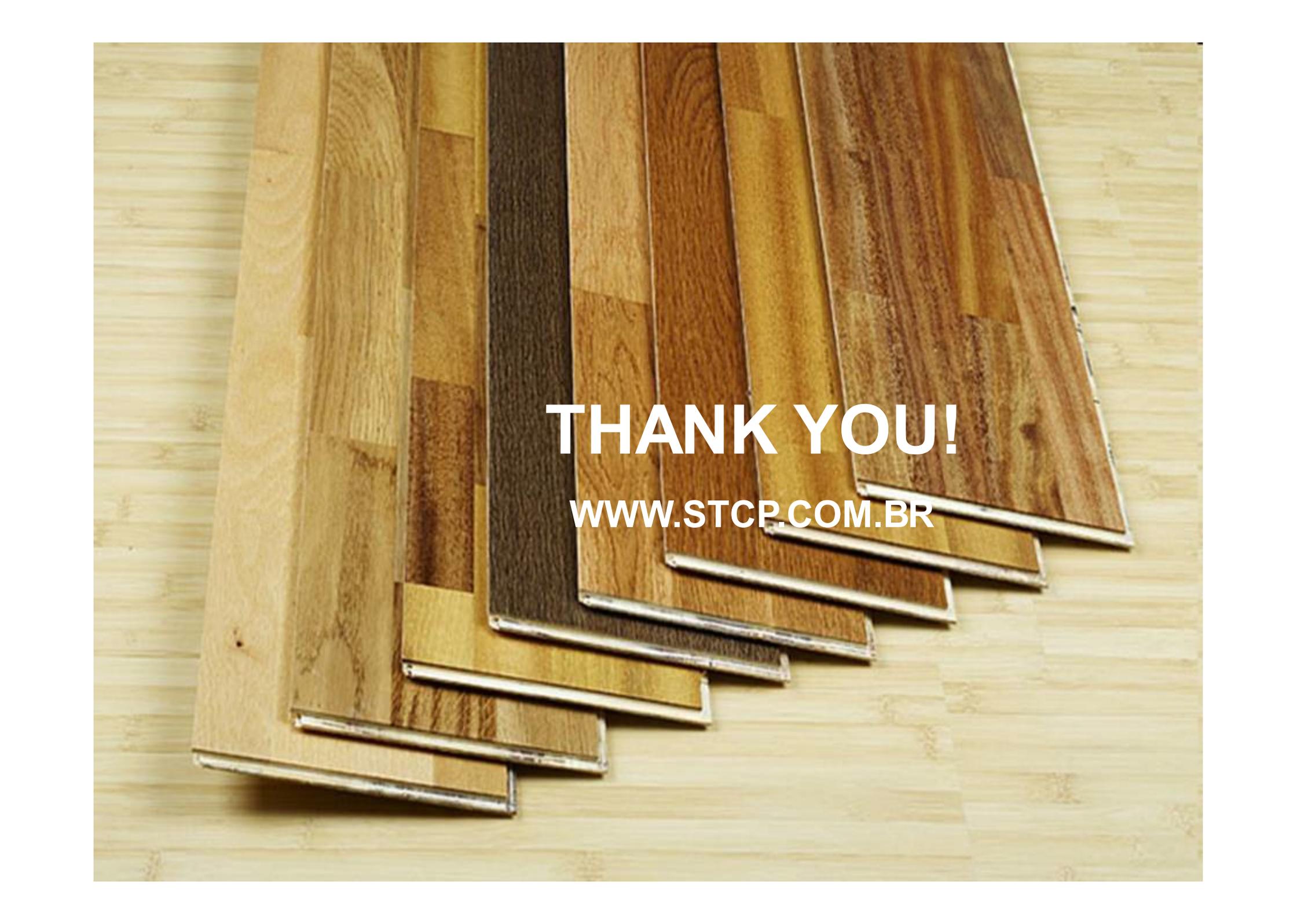
## APPLICATION OF COMPOSITE WOOD PANELS

- DECORATIVE PANELS
- BUILDINGS WALLS AND ROOFS
- FURNITURE COMPONENTS
  - DOORS
  - SIDES



## FINAL REMARKS

- INNOVATIONS FOCUS ON MARKET COMPETITIVENESS, AND ARE BASED “OLD AND NEW TECHNOLOGIES”
- IT IS A CONTINUOUS PROCESS AND APPLIES TO ALL MATERIALS AND PRODUCTS
- TIMBER PRODUCTS ARE COMPETING AMONG THEM AND ALSO WITH OTHER MATERIALS PRODUCTS
- MATERIAL SUPPLY SOURCE, ENERGY APPLIED IN PRODUCTION, EMISSIONS, IMPACT ON CLIMATE CHANGE AND OTHER FACTORS ARE BECOMING PART OF THE CONSUMERS CRITERIA FOR SELECTION OF A PRODUCT.



**THANK YOU!**

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