Smart furniture manufacturing

a "new world" demands "new thinking"

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What is Re-manufacturing?

"returning an used product to at least its original performance with a warranty that is equivalent to or better than that of the newly manufactured product"

Current project initiatives in BSR region

- Manufacturing + Design:
  - comfort in living (active ageing in Europe);
  - comfort at work (longer at work);

Our Project Idea:

GREEN MANUFACTURING OR RE-MANUFACTURING FOR CONTRACT FURNITURE INDUSTRY

Green manufacturing or Re-manufacturing for contract industry (I)

- Europe is the **largest tourism destination** in the world with a market share of around **50 %**
- **475 million** international arrivals every year
- People spending **over 1.5 billion** nights in hotels in the EU28

Green manufacturing or Re-manufacturing for contract industry (II)

Why the hotels need to renovate?

- Keeping up to required quality standards
- Marketing tactics
- Basic necessities

Green manufacturing or Re-manufacturing for contract industry (IV)

Cross-sectors cooperation:

Furniture + IT + Logistics

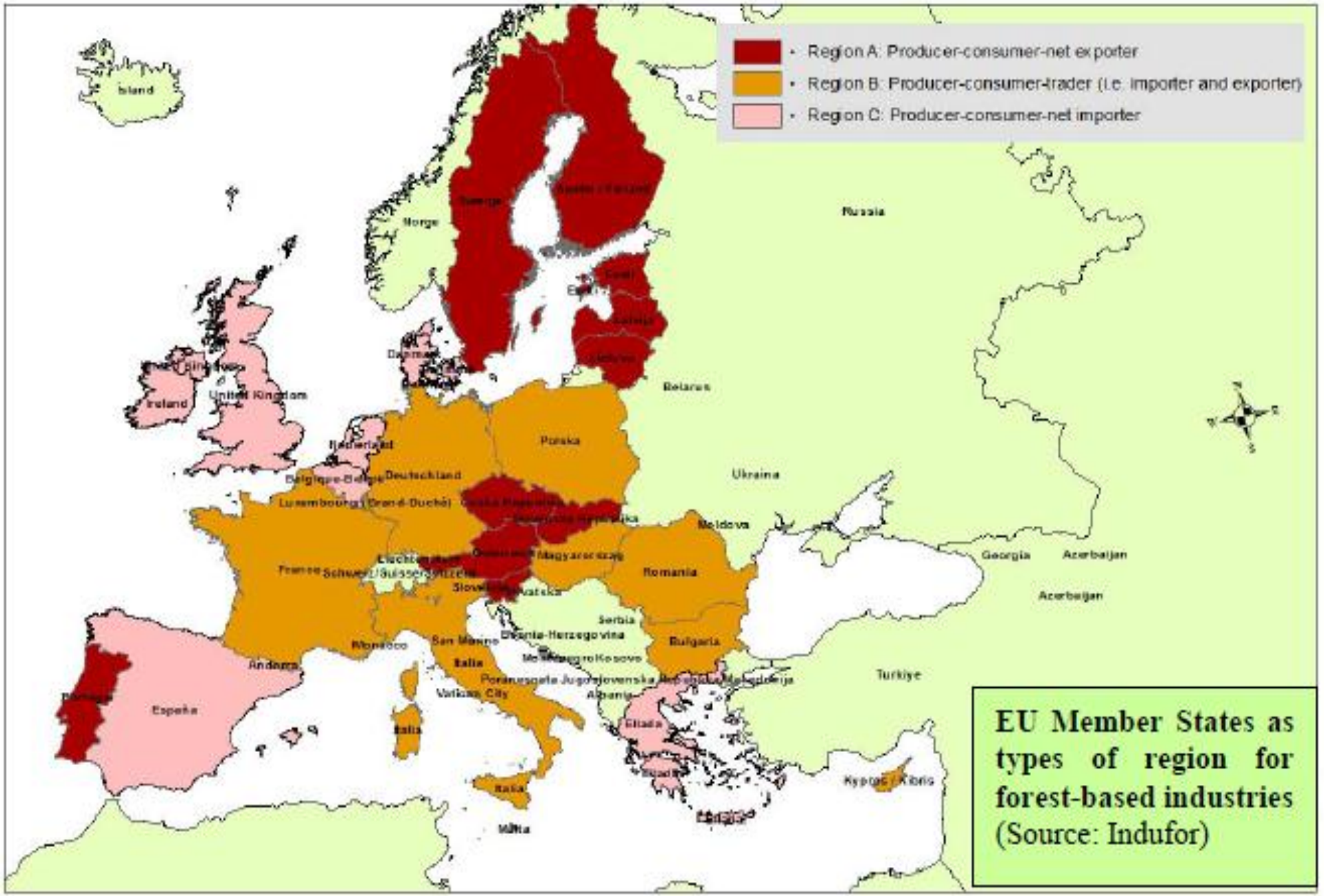
(Using the Danube river transport)

Does the Re-manufacturing fit in with the new EU strategy for WFI?

The new ID card for furniture?

Re-manufacturing & EU strategy for WFI (I)

F-BI sub-sector/ Parameter	Woodworking	Furniture	Pulp & paper manufacturing & converting	Printing	Total
N° firms	184 000	130 000	21 000	120 000	455 000
N° jobs	1 093 000	*1 000 000*	647 500	*770 000*	*3 510 500*
Production value (M€)	115 702	92 000	168 000	85 535	461 237
Turnover (M€)	122 264	96 000	180 000	88 009	486 273
Added value (M€)	31 200	30 000	41 000	32 477	134 677



EU Member States as types of region for forest-based industries (Source: Indufor)

Re-manufacturing & EU strategy for WFI (III)

NACE activities	Change 2000-2011 (%)
TOTAL - All manufacturing activities	- 14%
C16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	- 20%
C17 - Manufacture of paper and paper products	- 23%
C18 - Printing and reproduction of recorded media	- 29% (estimate)
C31-C32 - Manufacture of furniture; other manufacturing	- 30% (estimate)

Re-manufacturing & EU strategy for WFI (IV)

Year Sub-sector	2003	2010	Change (%)
Woodworking	200 144	184 000	- 16 144 (-8%)
Furniture	149 772	130 000	- 19 772 (-13%)
Pulp & paper	19 516	21 000	+ 1 484 (+8%)
Printing	131 434	120 000	- 11 434 (-9%)
Total	**500 773**	**455 000**	**- 45 773 (-9%)**

Re-manufacturing & EU strategy for WFI (V)

The main technological challenges for the EU F-BI are:

- How to innovate and develop new products and services to meet rapidly changing societal needs, including up to 2020, 2030 and 2050?
- How to design and develop new production processes that use less wood, other raw materials and energy, while minimising waste, and are capable of manufacturing completely new groups of products?

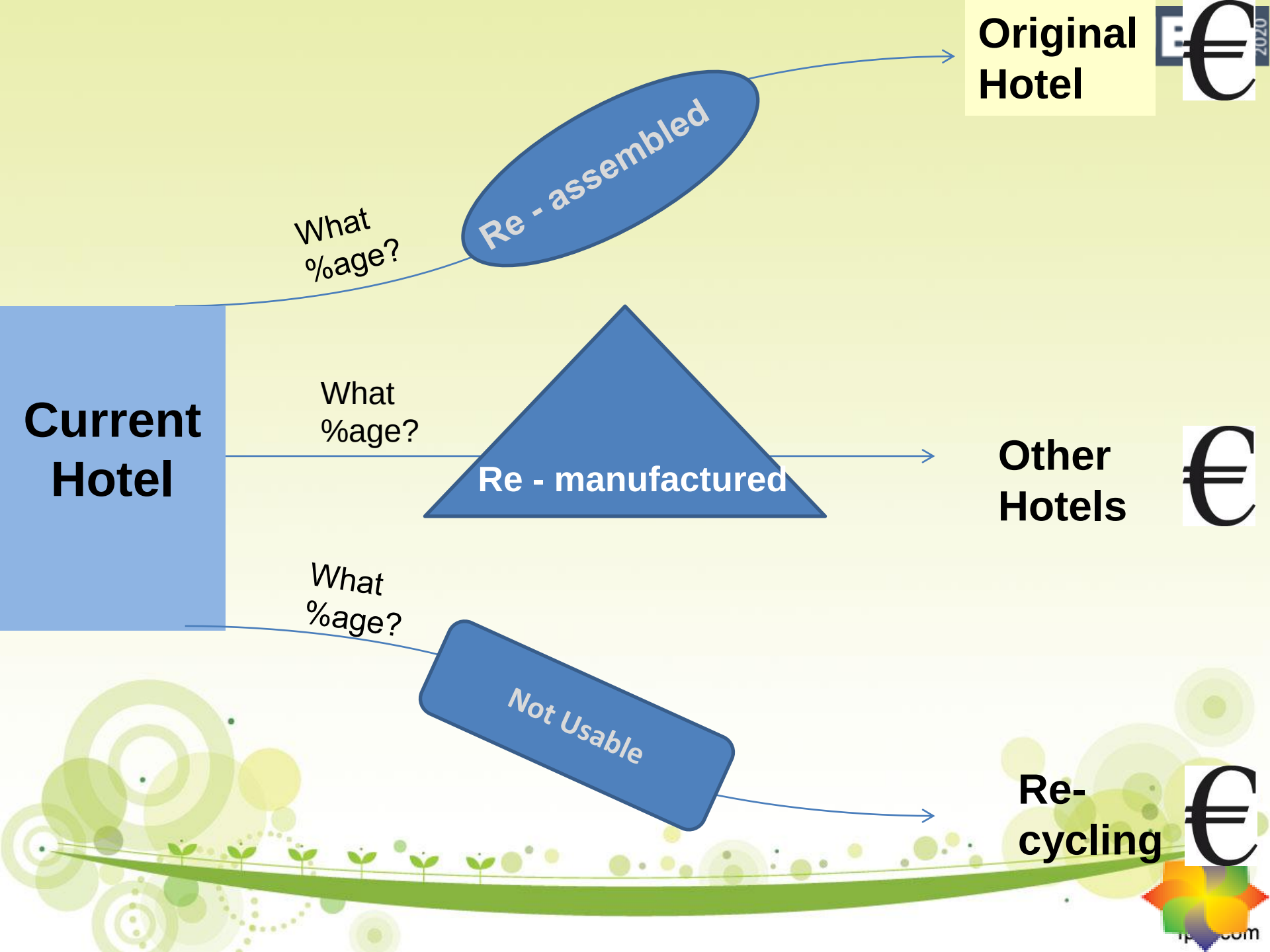
Re-manufacturing & EU strategy for WFI (VI)

The main technological challenges for the EU F-BI are:

- How to educate and update the knowledge and skills of the F-BI's researchers and workforces to be able to develop such products and implement such processes?
- How to produce wood more cost-effectively and sustainably from existing EU forests and other wooded land in qualities and assortments better matched to manufacturing needs?

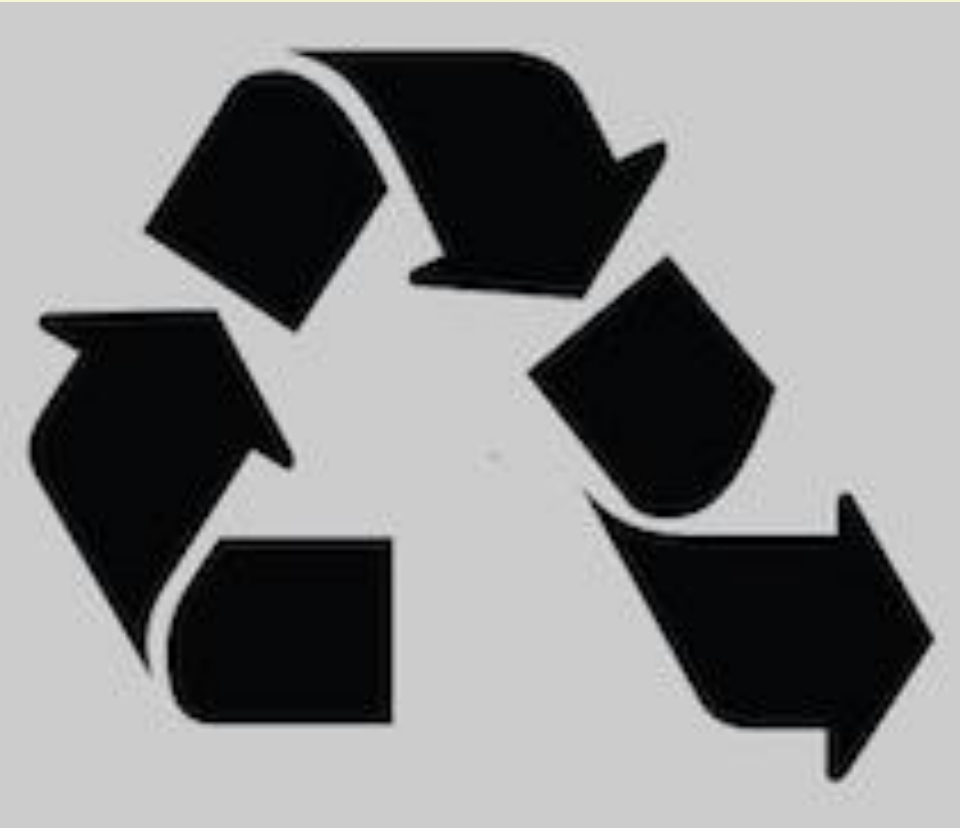
Is furniture suitable for re-manufacture?

Beneficial Features	*Detrimental Features*
High intrinsic value	Poor design for assembly/disassembly
Good durability	Proliferation of materials in construction
Low to moderate technological evolution	Status-dependent, fashionable items
Core readily available	Poor perception of standards/branding
Integrated sales/service/upgrade options	Low price of new goods
Design information available	Craft skill shortage


Original Hotel
Re - assembled
What %age?
Current Hotel
What %age?
Re - manufactured
Other Hotels
What %age?
Not Usable
Re-cycling

What does the project need to do ?

Cost benefit analysis ?



Are you ready?