

# Proposal for FP 1303 – Performance Round Robin test

**M. Humar<sup>1</sup>, C. Brischke<sup>2</sup>, L. Meyer<sup>2</sup>, D. Jones<sup>3</sup>**

<sup>1</sup> University Ljubljana, Biotechnical Faculty

<sup>2</sup> Leibniz University Hannover, Faculty for Architecture and Landscape Sciences

<sup>3</sup> SP Technical Research Institute of Sweden, Stockholm

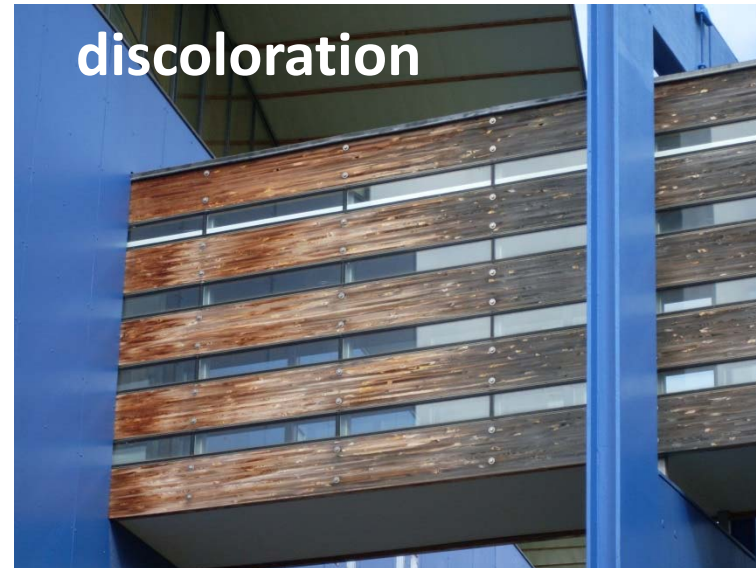


Leibniz  
Universität  
Hannover

***COST FP 1303 Workshop  
Paris [France]  
27-28 January 2014***

# Performance

→ Aesthetics



# Performnace

→ Moisture performance



# Performnace

→ Durability / Functional performance



Fungal decay

Termite damage

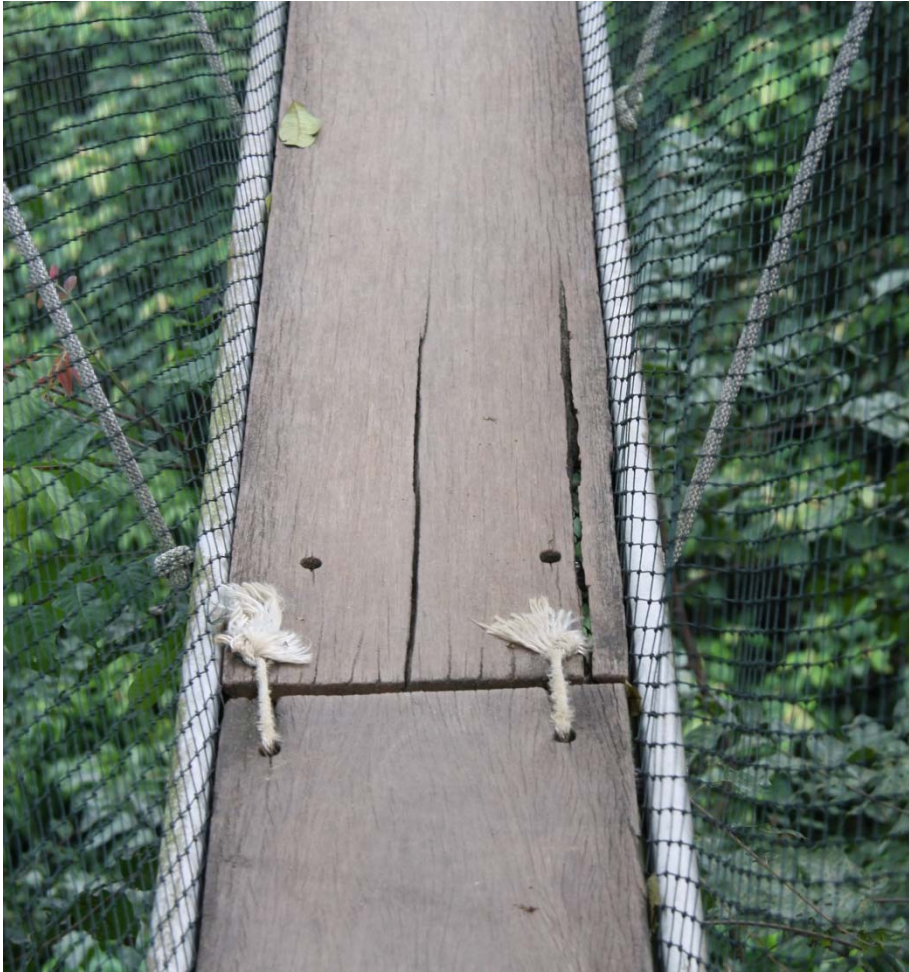


# Performnace

→ Moisture performance/Durability



# Functional performance!!!



# RR - principle

- Cover different aspects of „performance“
  - Functional performance
  - Aesthetic performance
  - Moisture performance
  - Durability
- Cover different climatic conditions
- Cover Europe

# RR - requirements

- Early start → results within the FP 1303 period
- Simple set-up
- Reflecting outdoor above ground conditions
- Easy to handle / ship
- Moderate price
  - Two options / two prices
- **High cost-benefit ratio**



# „Performance table“



# „Performance table“

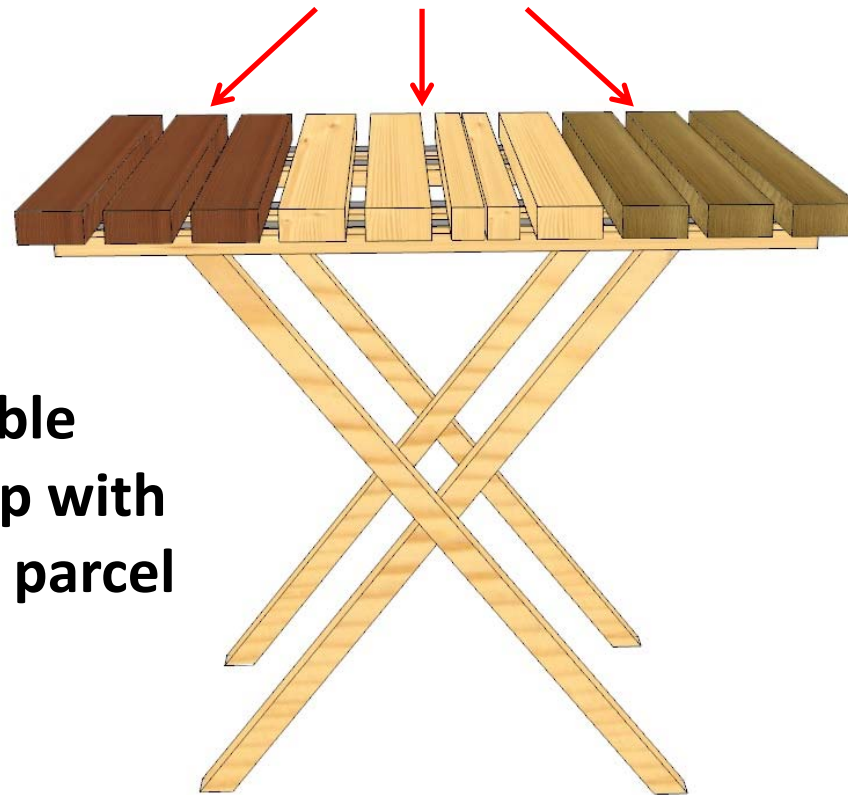


# „Performance table“



# „Performance table“

3 materials  
3 replicates



EN 252 – stakes  
(25x50x500 mm<sup>3</sup>)

Folding table  
→ Easy to ship with  
standard mail parcel

# „Performance table“

2 types of fasteners

Polyethylene spacer

Stainless steel

Ordinary steel

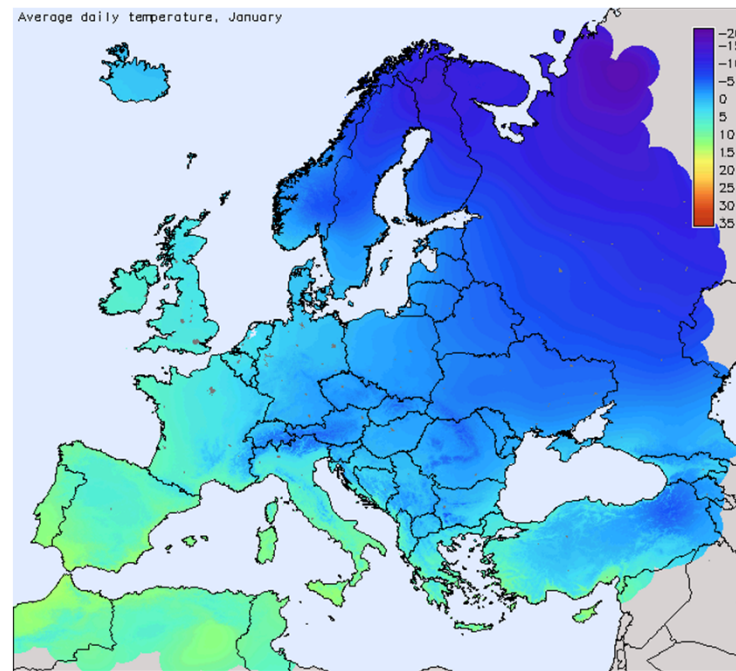


EN 252 – stakes  
(25x50x500 mm<sup>3</sup>)

# „Performance table“

## → Evaluation

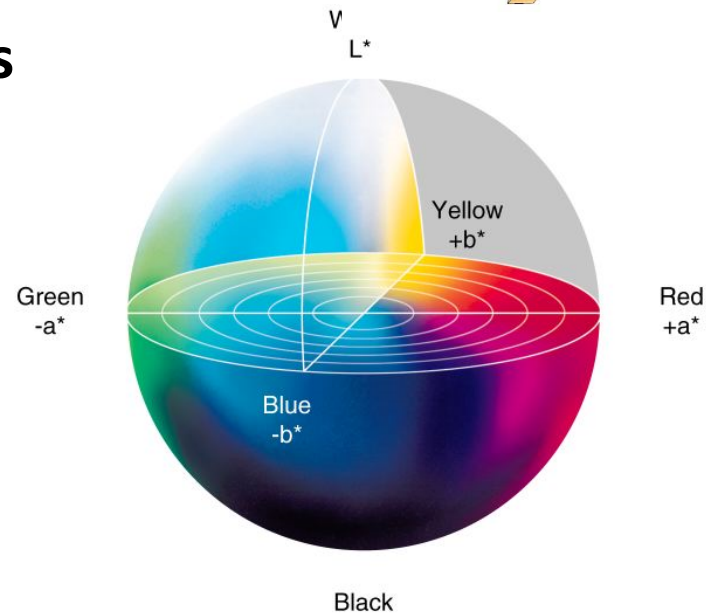
- Decay & discoloration
- Color, cracking/checking
- Corrosion
- Moisture (continuously - optional)
- **Climate data**



# „Performance table“

## → Evaluation

- Decay (once a year)
  - according to rating scheme
- Discoloration
  - according to EN 927-3
- Color
  - $L^*a^*b^*$  measurements



# „Performance table“

## → Evaluation

- **Cracking / checking**

- total length
- width
- number



- **Corrosion**

- Visual inspection (discoloration)
- Weighing of screws (before Action ends)





# „Performance table“

## → Evaluation

- Moisture recording
  - Resistance measurements
  - Data logging



# Selection of materials

## Offer 1:

by Silvaprodukt, Slovenia

**Norway spruce**

**TMT spruce**

**English oak**

## Offer 2:

by University Ljubljana,

Biotechnical Faculty

**Manufacturing the tables**



# Costs / prices

**Version A**  
**(no MC logging)**

**150 €**

**Version B**  
**(incl. MC logging)**

**950 €**

- 1 T/MC logger
- 8 channel giga ohm module logger
- batteries
- electrodes installed



**Shipping cost included**

# Thanks for your attention!



Univerza v Ljubljani



