



INSTITUT  
TECHNOLOGIQUE



# EU-HARDWOODS

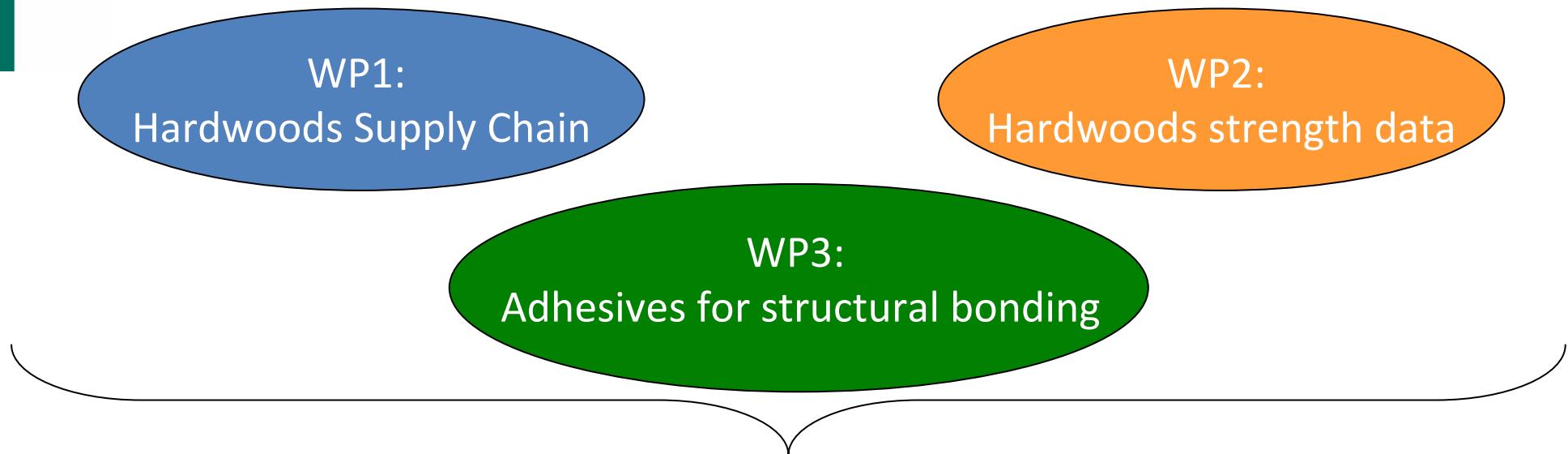
**WP4 – Glulam made of hardwoods or mixing  
hardwoods and softwoods**

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**Program update**

**Frédéric SIMON – Kick-off meeting, HFA, 13<sup>th</sup> of March, 2014**

## Aims WP4...



### WP4: Glulam made of hardwoods or hardwoods & softwoods



**To define the glulam beam build-ups, mixing simulations and experimental data  
To propose economically and technically competitive solutions**

## Aims WP4... Mechanical performances & Production process

- literature study on previous projects on hardwoods at FCBA & MPA –  
extraction on data for glulam beams:

**Chestnut (2014)**

**Oak**

**Oak (2011)**

**Beech (2014...)**

**Beech (**

**at FCBA**

**at MPA**

- simulation of mechanical beams properties from MPA model  
developed for softwoods and extended to hardwoods

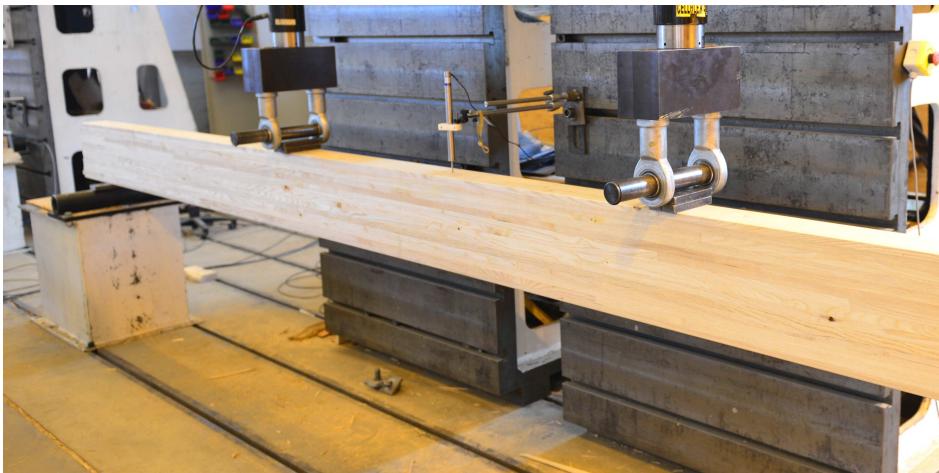
**lamella strengths (WP2)**

**FJ strengths (WP3)**

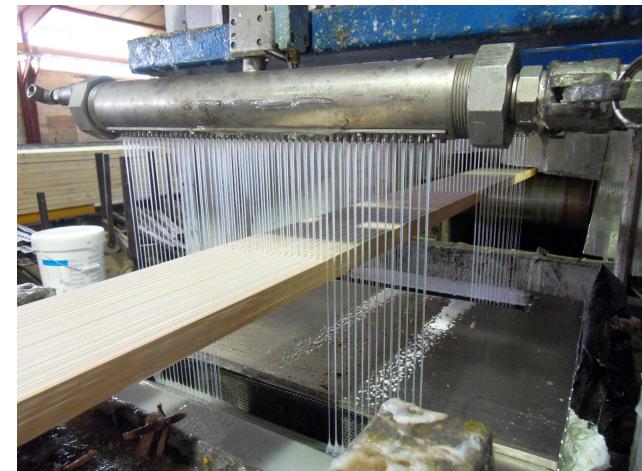
- mixing hardwoods qualities in glulam beams

- mixing wood species.... Reinforcement, aesthetic... Mixing lamellae  
or beams bonding...

## Aims WP4...



+



+ numerical simulations & FE calculations

Prototype beams production (oak) in SIMONIN SAS (France)

- 1<sup>st</sup> set for hardwoods beams
- 2<sup>nd</sup> set for hybrid beams



**To feed the new version of EN14080-2 standard for hardwoods**

# Timeschedule... mainly 2015

Task	2014				2015				2016				P1	P2	P3	P4	P5	P6	P7	P8	P9
0													X	X	X	X	X	X	X		
1.1															X	X	X	X			
1.2															X		X	X			
1.3																	X				
2.1														X			X	X			X
2.2														X			X	X			
2.3														X							
3.1															X	X					
3.2														X	X	X					
4.1															X	X	X	X			X
4.2														X	X	X					X
5.1															X				X		
5.2																					
5.3															X					X	
6														X	X	X	X	X	X	X	

HFA, MPA, FCBA, Univ. LJ & Simonin SAS

# Some proposals to discuss