



COST Action FP1402

“Basis of structural timber design – from research to standards”

Roberto Tomasi, Uni Trento (Co-leader WG2 „CLT“)

Philipp Dietsch, TUM Munich (Chair COST FP1402)

COST Action FP1004 Final Meeting

LNEC, Lisbon, Portugal

15 - 17 April 2015

Introduction / Background

R&D in Timber Construction – Massive Timber Buildings



Can
potentially
replace:

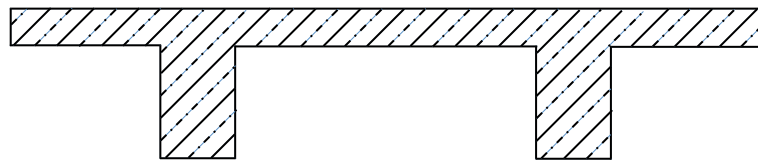


[finnforest-merk]

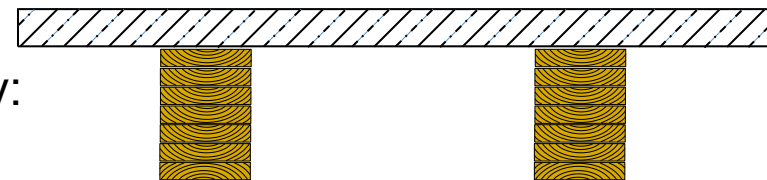
[Huber&Sohn]

Introduction / Background

R&D in Timber Construction – Hybrid Timber Structures



Can be replaced by:



[Hermann Kaufmann]



Introduction / Background

R&D in Timber Construction – Connections



[Wiehag]



Span $L = 78$ m, Load $F = 1100$ tons (60 trucks)

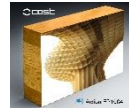


Introduction / Background

Timber Construction – Challenges

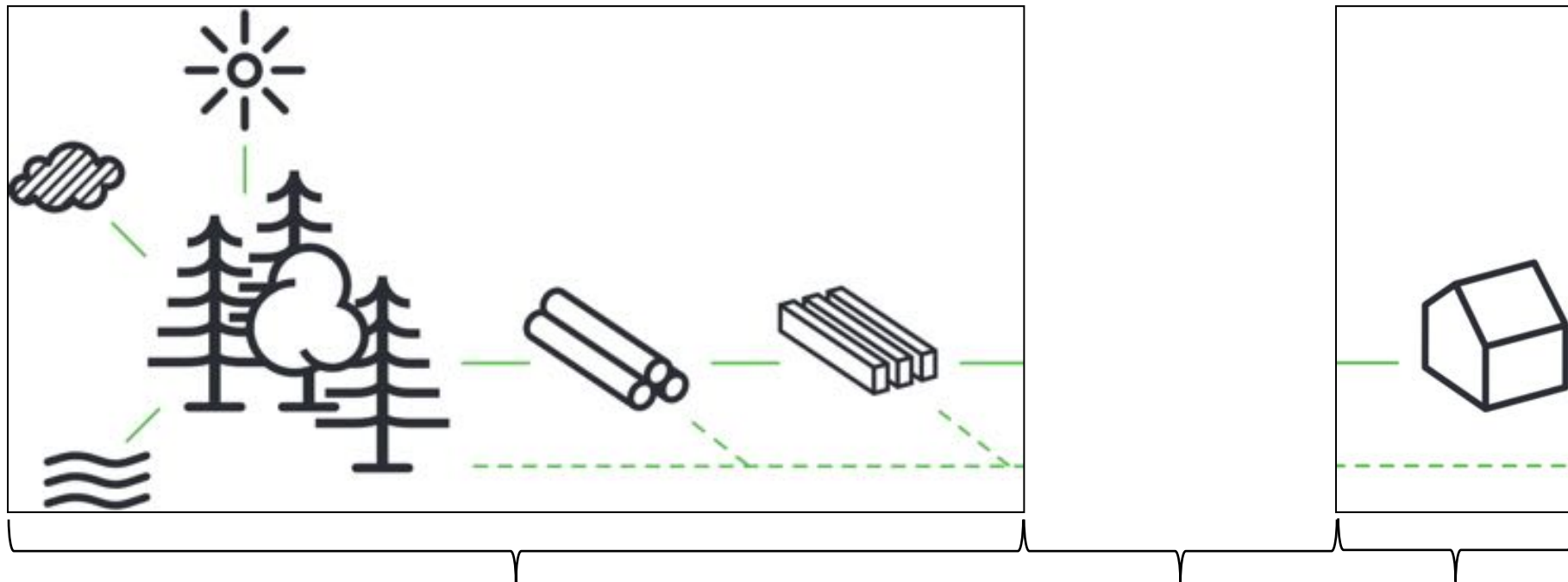
- Recent developments are lacking common design and construction rules
- variety of approaches
- lower reliability at higher cost
- constraint with respect to confidence, acceptance and use of timber in construction on European level





Introduction / Background

Timber Construction – Challenges



Established scientific knowledge
on wood and wood products
(e.g. CIB W-18, WCTE, COST Actions)

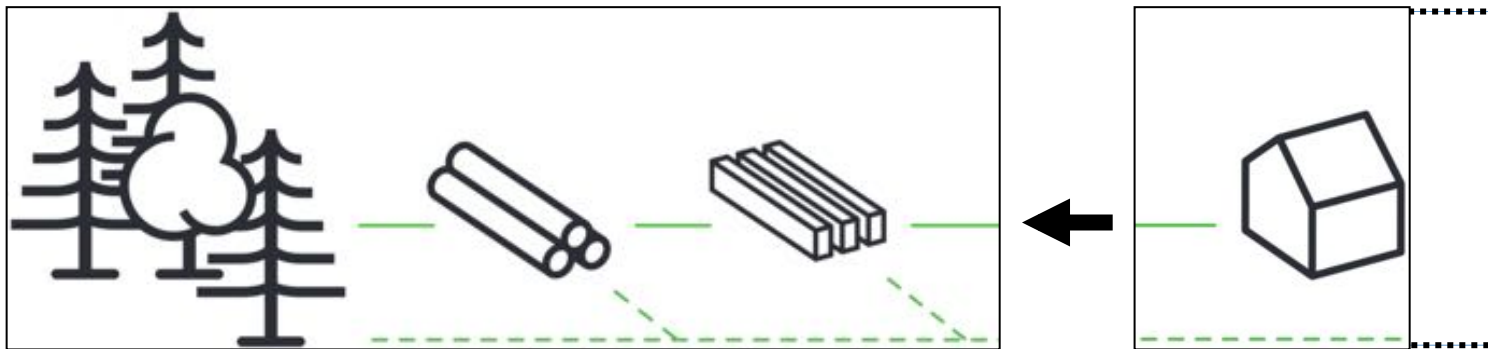
Lack of common
design and
construction
rules for recent
developments

Building
practice

Aims and Objectives

The main objective of the Action is to provide the knowledge and methods necessary to bring new developments in the area of timber construction into building practice

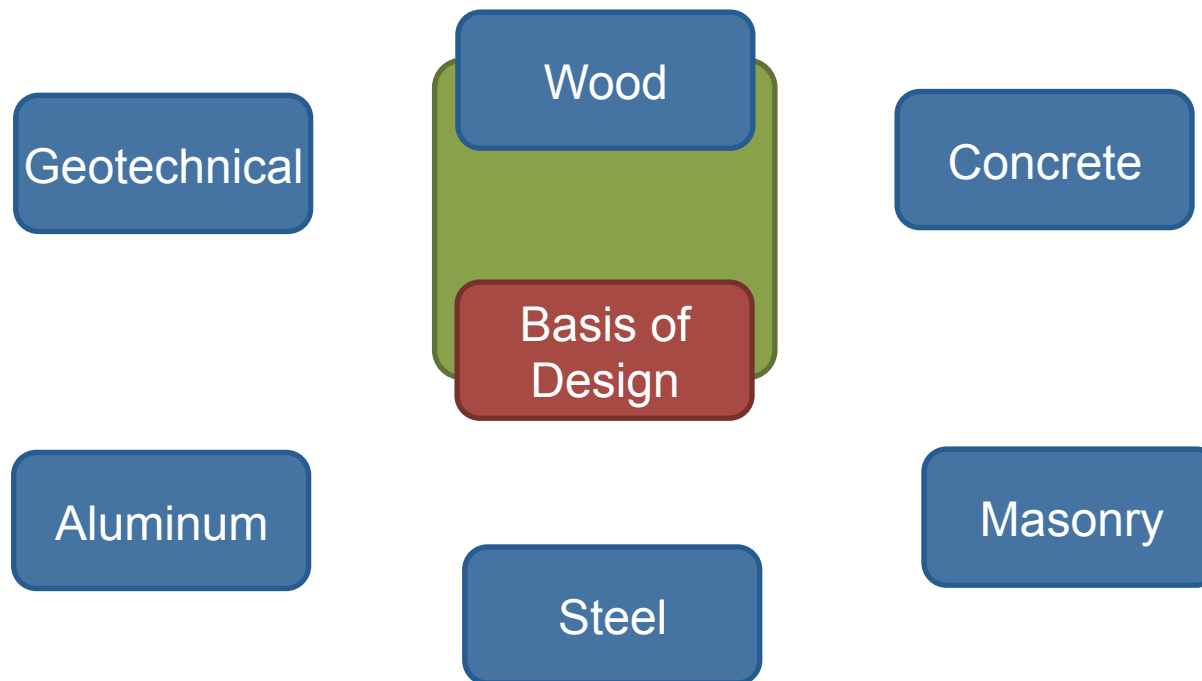
- Necessitates an expert network that links research with practice, thus technological developments with scientific background
- Necessitates consensus on European level
- Prospective participants (from research and practice) should have a background in structural engineering (Civil Engineering) or/and timber as a structural material (Science of Structural Materials).





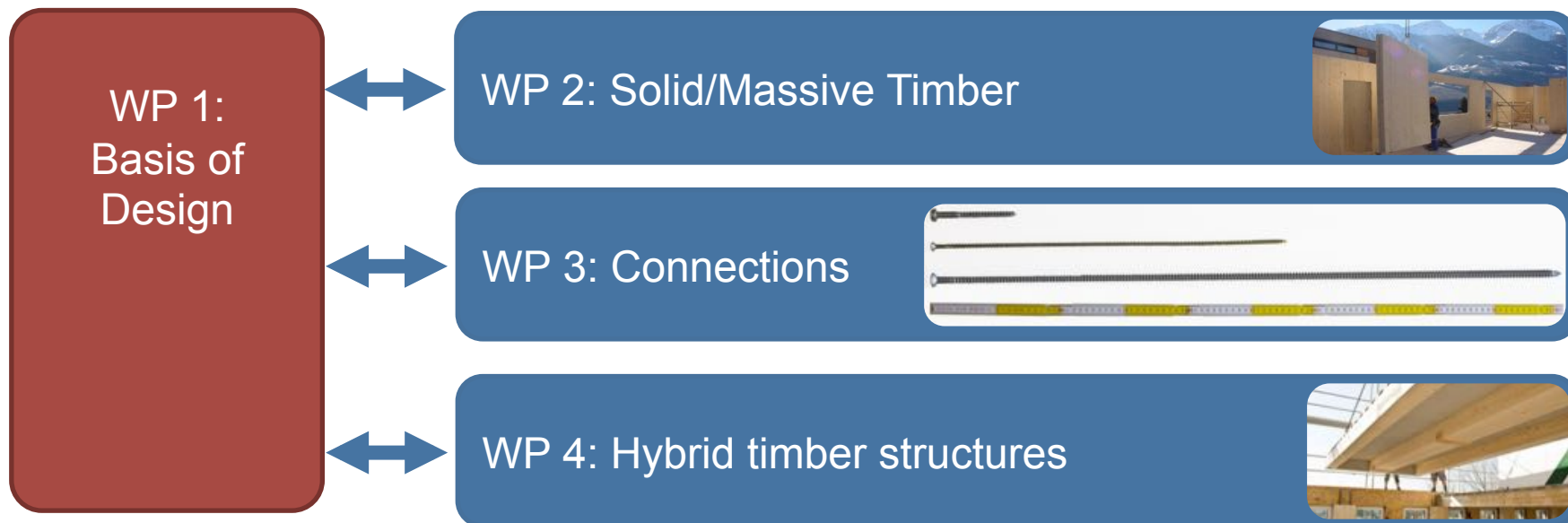
Scientific Programme and Networking

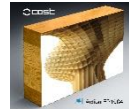
Scientific Focus No. 1: To join the two scientific fields
“Basis of Design” and “Basis of Wood as structural Material”



Scientific Programme and Networking

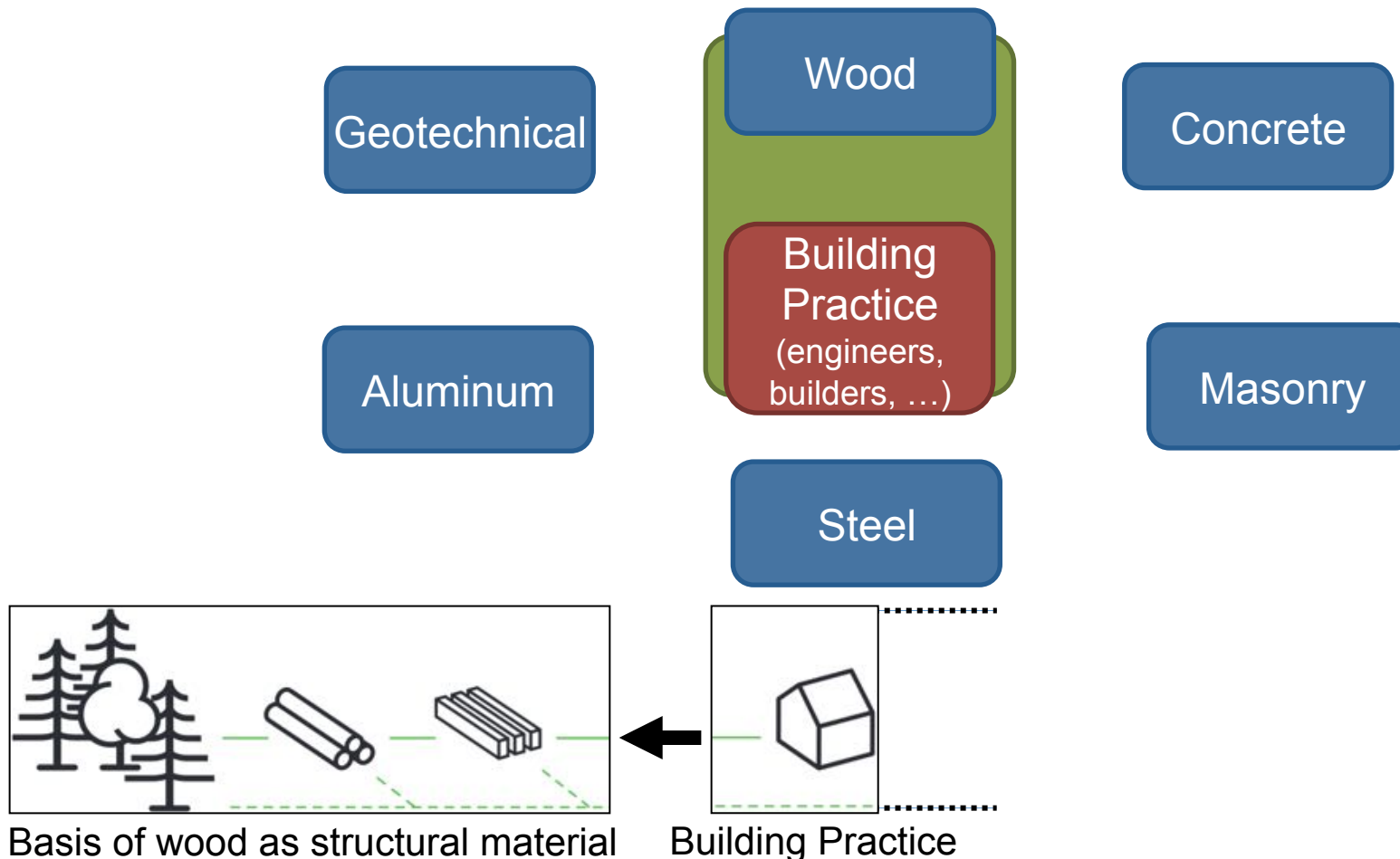
Scientific Focus No. 1: To join the two scientific fields
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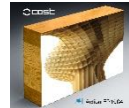




Scientific Programme and Networking

Scientific Focus No. 2: To join the scientific field
“Basis of Wood as structural Material” with building practice





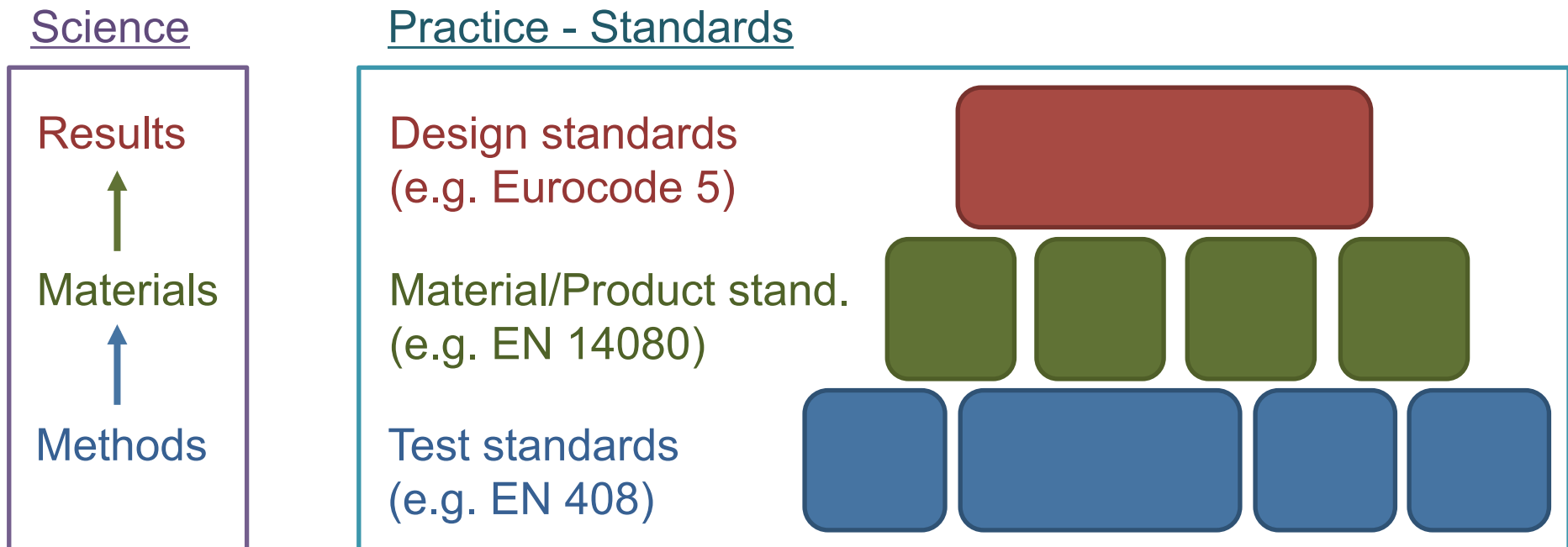
Structure and Organization





Scientific Programme - Challenge

Scientific Foci: To join the two scientific fields “Basis of Design” and “Basis of Wood as structural Material” with building practice





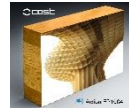
Organisation and Timeplan

Event	2015				2016				2017				2018			
MC meetings	x						x				x				x	
CG meetings	x		x		x		x		x		x		x		x	
WG meetings	x		x		x		x		x		x		x			
Workshops	x		x				x		x				x			
STSMs	min. 6				min. 6				min. 6				min. 6			
Training schools							x				x			x		
Conference					x											x
STAR (draft)												x				
STAR (publication)																x
Journal p. (draft)												x				
Journal p. (pub.)																x
Final report																x



Organisation and Leaders

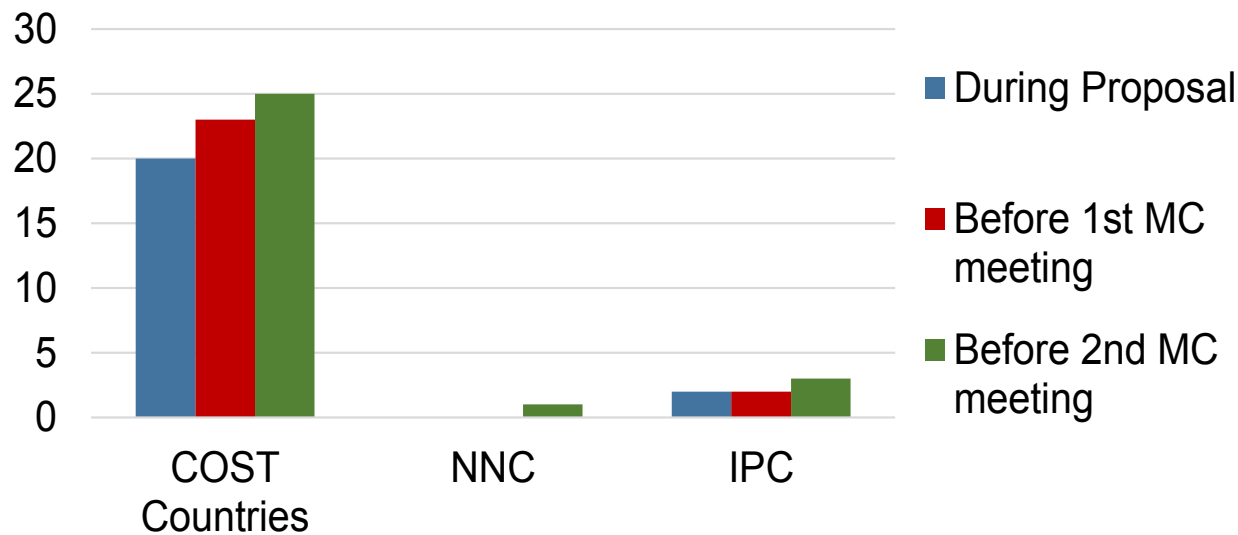
Position	Name	Institution, Country
Chair	<i>Dr. Philipp Dietsch</i>	<i>TUM, DE</i>
Vice-Chair	<i>Prof. Jochen Köhler</i>	<i>NTNU, NO</i>
WG 1: Basis of Design	<i>Prof. Jochen Köhler Dr. Gerhard Fink</i>	<i>NTNU, NO ETH/EMPA, CH</i>
WG2: Solid/Massive Timber	<i>Prof. Reinhard Brandner Prof. Roberto Tomasi</i>	<i>TU Graz, Austria Uni Trento, IT</i>
WG3: Connections	<i>Dr. Jørgen Munch-Andersen Dr. Carmen Sandhaas</i>	<i>Traeinformation, DK KIT, DE</i>
WG4: Hybrid timber structures	<i>Prof. Alfredo Dias Prof. Jörg Schänzlin</i>	<i>Uni Coimbra, PT FH Biberach, DE</i>
STSM manager	<i>Prof. Thierry Descamps</i>	<i>Uni Mons, BE</i>
Dissemination / Practical Application	<i>Prof. Richard Harris</i>	<i>Uni Bath, UK</i>



Participation

Countries

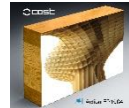
Country Participation



In proposal: AT, BE, CH, DE, DK, EE, ES, FI, FR, GR, HR, IT, MK, NL, NO, PL, PT, SE, SI, UK, [AU], [CA]

New before 1st MC meeting: CZ, HU, IE


New before 1st WG meeting: SK, TR, (UKR), [NZ]




Participation

Working Group membership

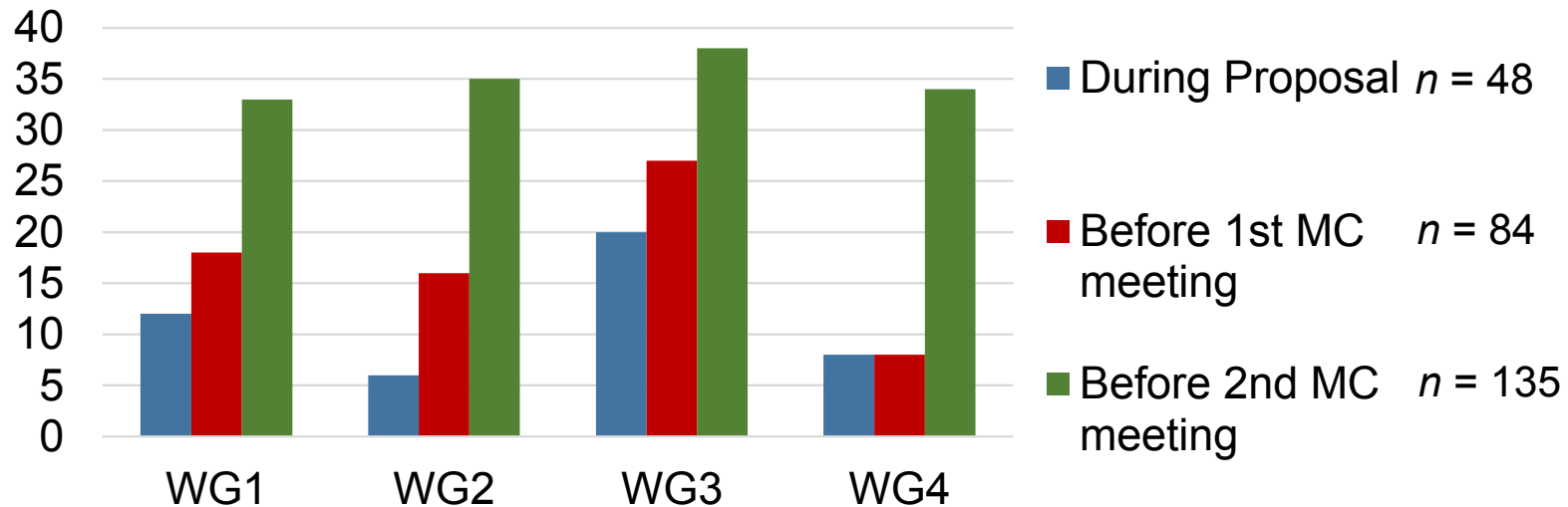
WG 1:
Basis of
Design

WG 2: Solid/Massive Timber 

WG 3: Connectio 

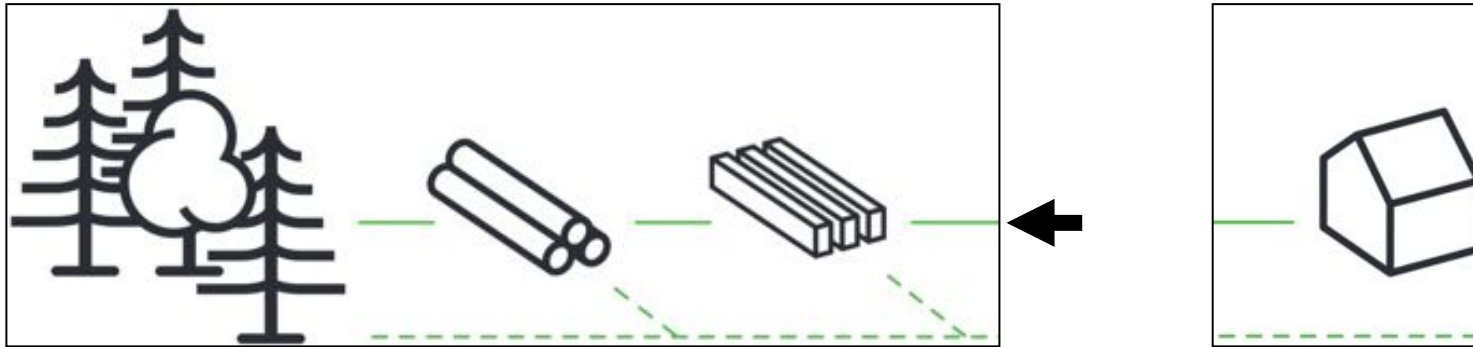
WG 4: Hybrid timber structures 

WG Membership

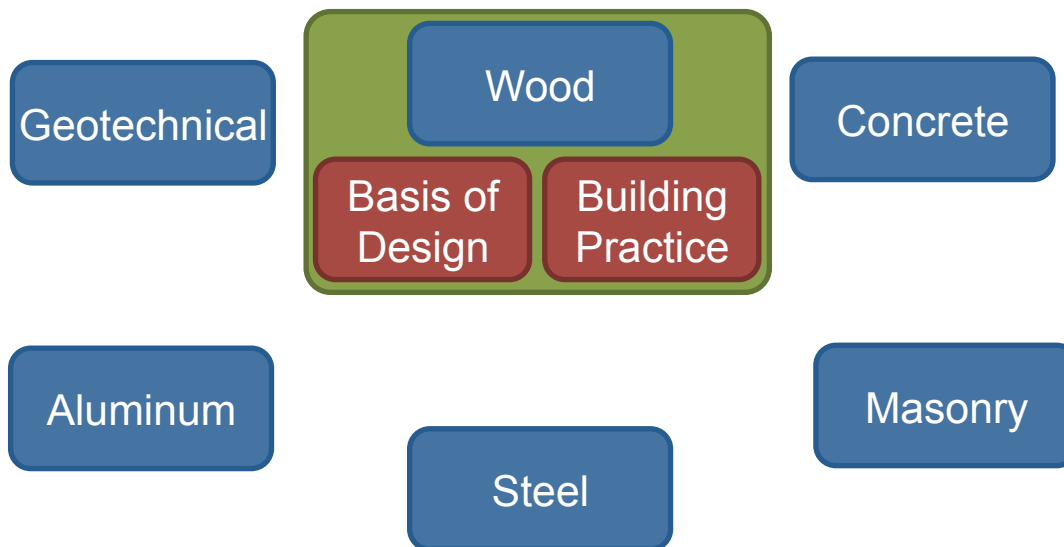




Summary



Closing the gap



Multidisciplinary approach



Cross-European network



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Thank you !