






Kick-off Workshop

COST Action FP1402

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

Karlsruhe Institute of Technology
Holzbau und Baukonstruktionen

COST FP1402 Kick-off Workshop, 12-13 March 2015, Karlsruhe, Germany
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Agenda:

Thursday, March 12th 2015

08:30 - 08:45	Opening and Workshop overview, Building 10.81, Room HS 93	
08:45 - 09:15	Introduction to COST Action FP1402	
09:15 - 10:00	Keynote session, Part 1	
	WG3 “Connections”	Prof. Hans Joachim Blaß, KIT Karlsruhe
10:00 - 10:30	Coffee	
10:30 - 12:30	Keynote session, Part 2	
	WG1 “Basis of Design”	Prof. Sven Thelandersson, Lund University
	WG2 “CLT”	Prof. Andrea Bernasconi
	WG4 “Timber Concrete”	Prof. Heinrich Kreuzinger, TUM Munich
12:30 - 13:30	Lunch	
13:30 - 14:30	Common Workshop, Room HS 93	
	Introduction to Working Programmes by WG leaders	
14:30 - 15:30	Separate WG meetings: presentation of objectives, workplan and members	
15:30 - 16:00	Coffee	
16:00 - 18:00	Separate WG meetings: Discussion of workplan, defragmentation of topics, task groups	
18:15 - 19:15	Optional: Tour of KIT testing laboratories, meeting in room HS 93	
19:30	Common Dinner at Höpfner Burghof	

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Agenda:

Friday, March 13th 2015

08:30 - 10:00	Separate WG meetings Workplan, task-groups, timeline, STSMs (topics, institutions, candidates)
10:00 - 10:45	Coffee including presentation „Reimbursement by COST“, Room HS 93
10:45 - 12:00	Common Workshop, Room HS 93 Presentation of results from WG meetings
12:00 - 13:30	Lunch
13:30 - 15:00	2 nd MC meeting

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Welcome to Karlsruhe!

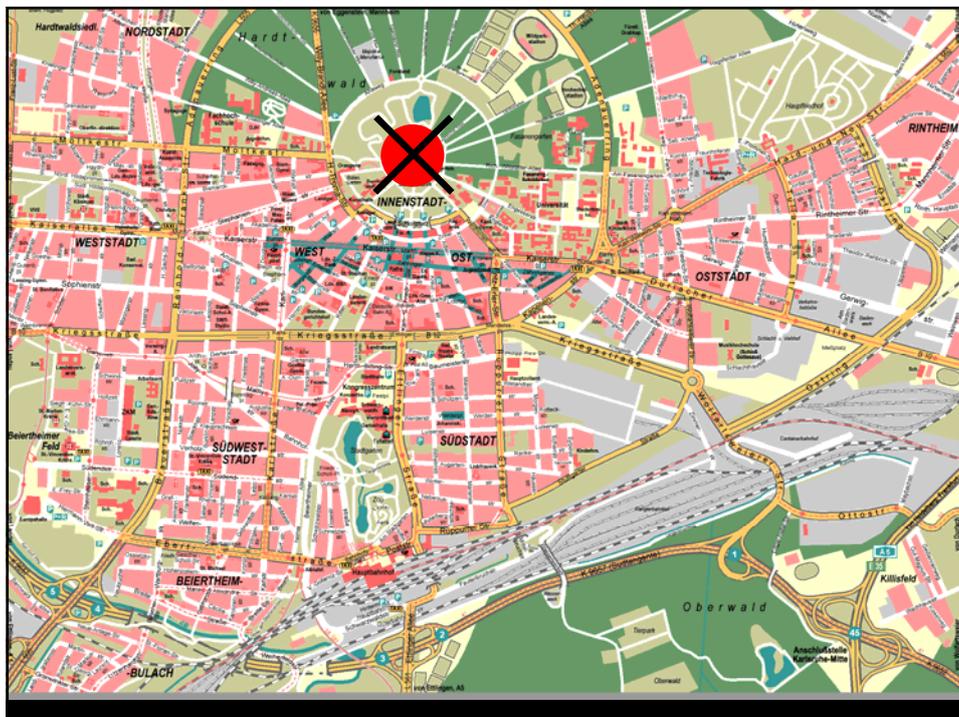
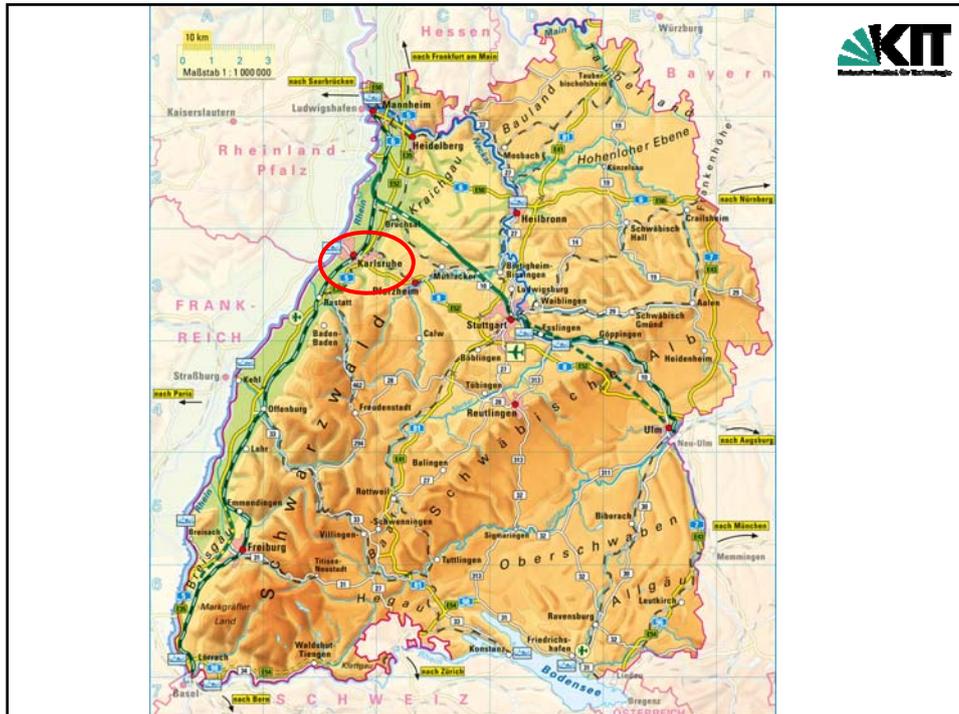
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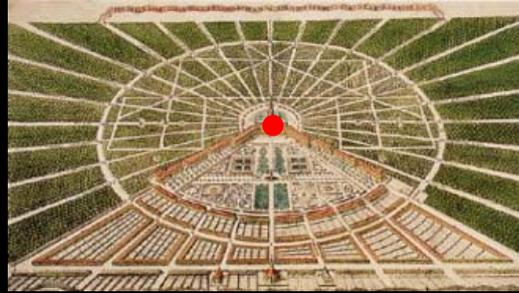


KIT – Universität des Landes Baden-Württemberg und
nationales Forschungszentrum in der Helmholtz-Gemeinschaft

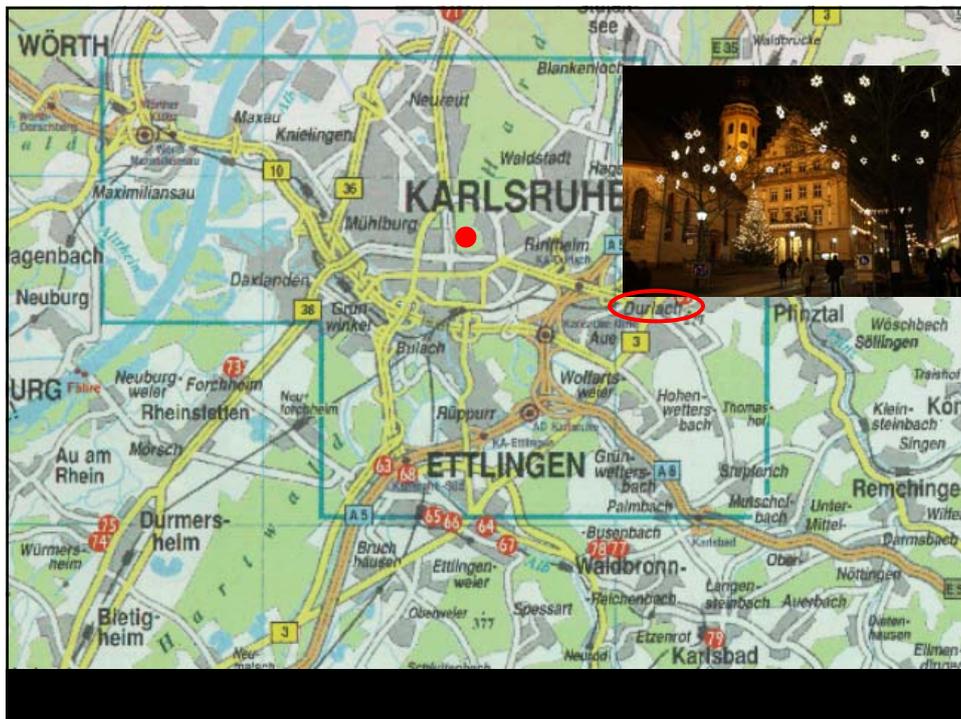
www.kit.edu

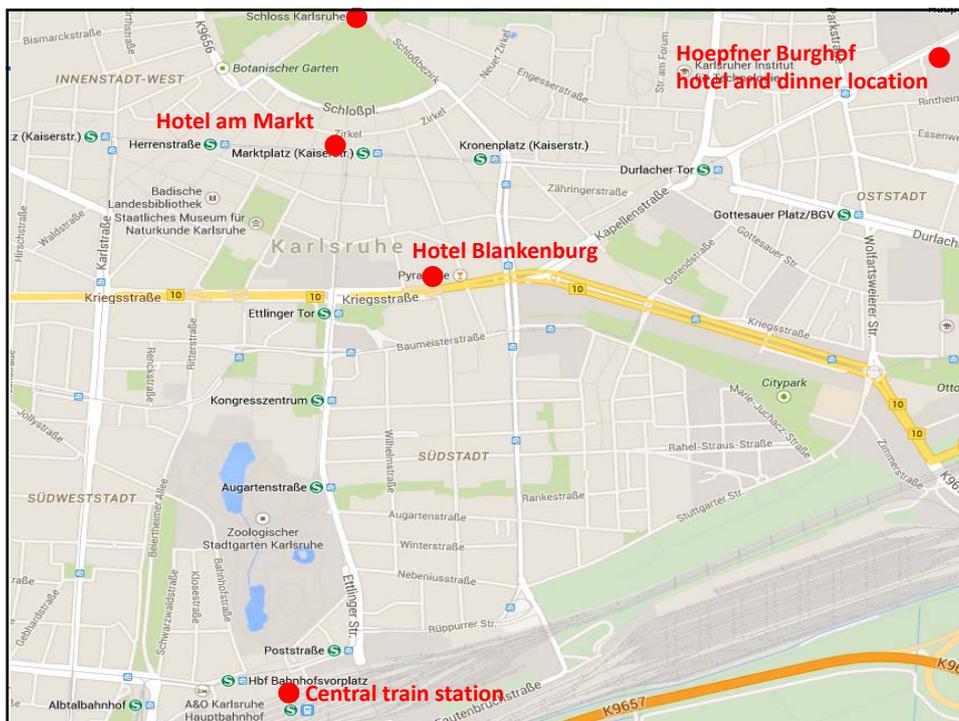
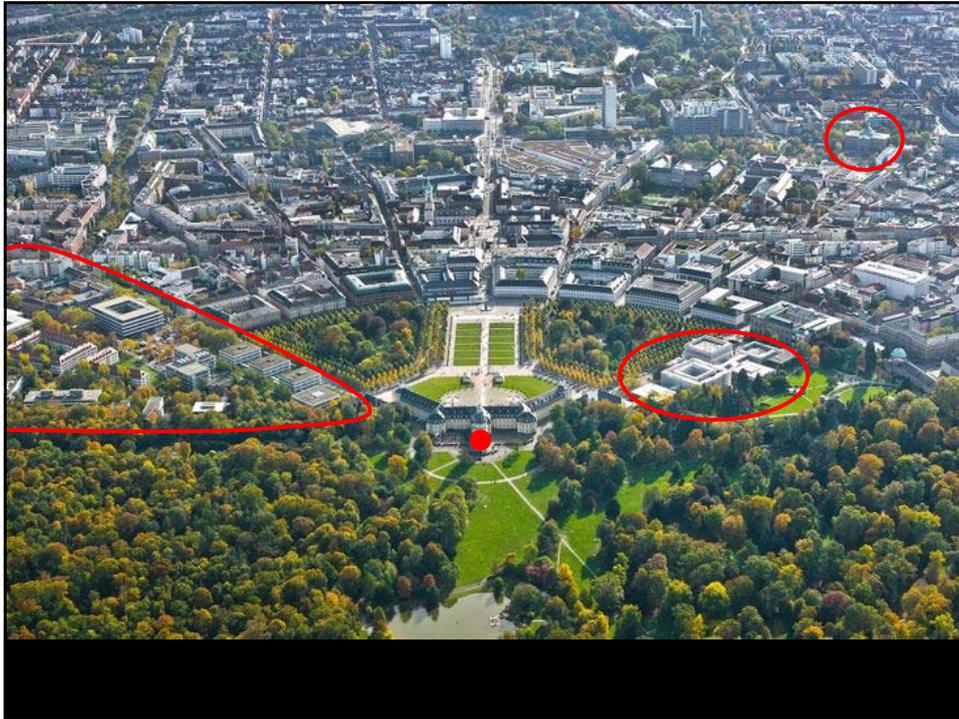


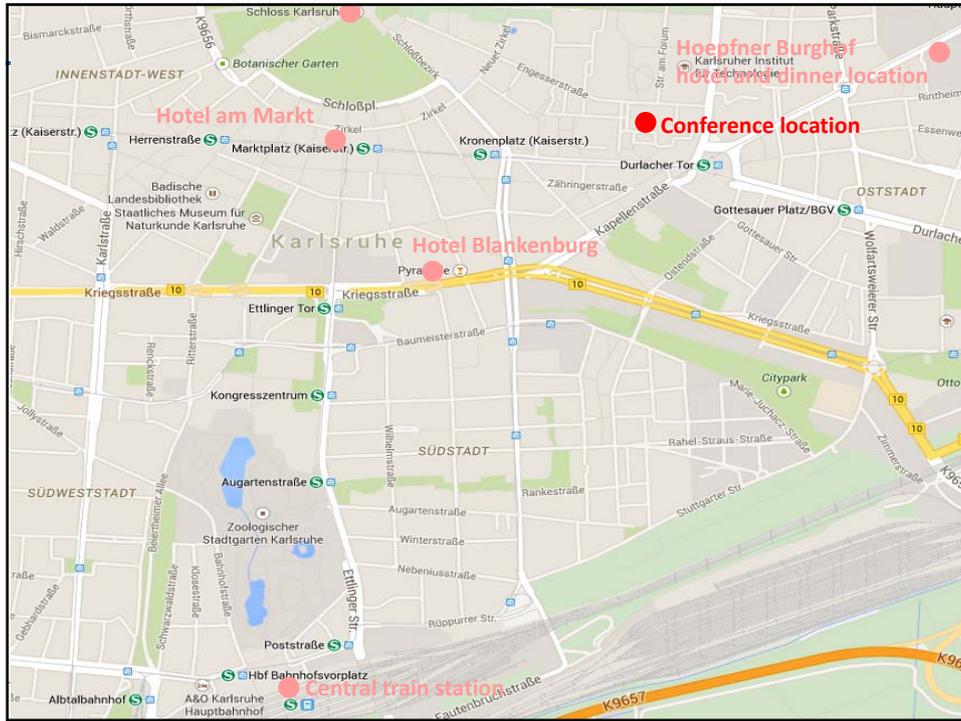




**Karlsruhe was founded on 17th of June 1715
by Markgraf Karl Wilhelm von Baden Durlach
Karlsruhe = Karl's rest**







Karlsruhe Institute of Technology KIT

Common meetings / WG 3 (connections): HS 93
WG 2 (CLT) : HS 59 **WG 1 (basis of design)**
WG 4 (TCC): Building 10.50 room 502 (elevator)



Coffee breaks and lunches

Room 219.1 opposite of HS 93 (where we are now)
During lunch, you can leave your luggage, computer
etc. in HS 93

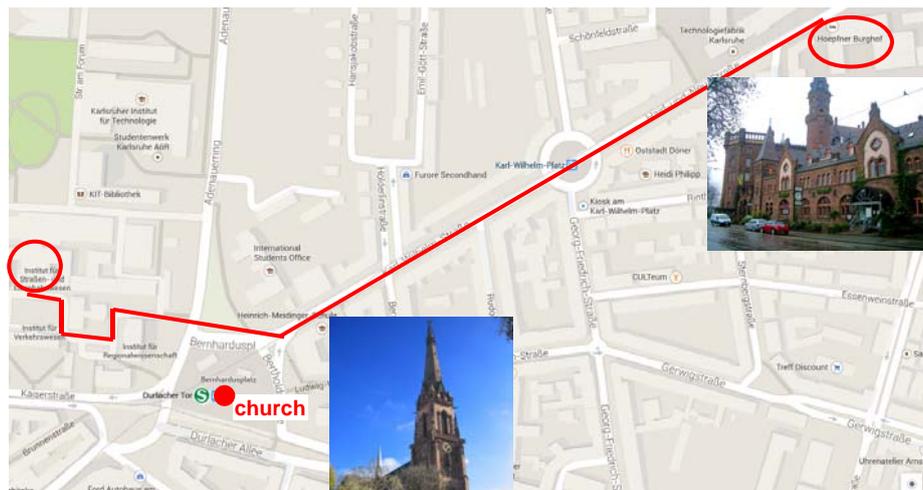
Tour through KIT lab

Meet here (HS 93) at 18.15
After the tour we will walk together to the dinner
location

WLAN

Eduroam OR info desk (room 219.1)

Dinner location, 1km walk





Friday morning

Meet directly in your WG meeting room
Take your luggage with you (lift for WG 4)

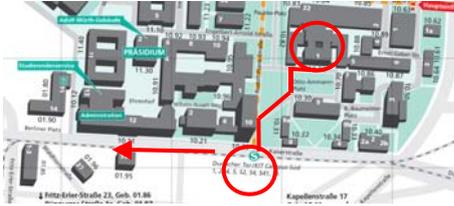
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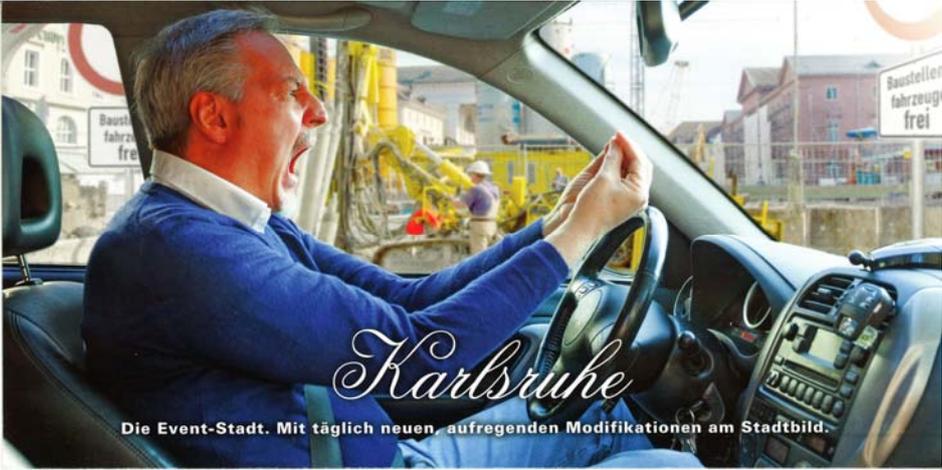
Leave it in HS 93 (here)

Departure Friday

Direct trams every 5 – 10 min
Duration: 10 min
Lines **2, S4, S41**

or 45 min walking





Karlsruhe

Die Event-Stadt. Mit täglich neuen, aufregenden Modifikationen am Stadtbild.

The city of events. With daily new and exciting changes to the cityscape.

Round call

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Commemoration of our colleague
Nikola Lustig (University of Rijeka, Croatia): July 7th 1986 – January 14th 2015

“Those of us, his family, friends and colleagues, who have known him for a long time and loved him dearly, have said our final goodbye at his funeral several weeks ago. Just a week ago we had found courage to redecorate his office at the faculty, as he is greatly missed by all of us and we still feel the void every day when we come to work, especially me, since he was my closest associate. He was an extraordinary young man, good natured, kind and very much liked. Many would not believe that he had been seriously ill since he was a child. He would never give in to the illness or have the illness limit him in any way. Two and a half years ago, he had successfully overcome a very risky transplantation and it seemed like it was a new beginning for him. But, the medication he had to use, caused a great, but unfortunately short illness, whose aggressive therapy he could not withstand. Nevertheless, he lived his life to the maximum, giving his all, sometimes even more than was expected of him. He had great scientific potential in the field of Timber Structures and was talented for Structural Mechanics. He was very much looking forward to participating in COST FP1402 and to the work on his doctoral thesis, for which we had started research and set up tests. Life's unexpected turns leave us thinking now what it sometimes is.”

Prof. Adriana Bjelanovic

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Introduction / Background
R&D in Timber Construction – Massive Timber Buildings

Can potentially replace:



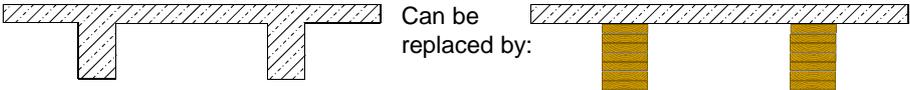
[finnforest-merk] [Huber&Sohn]

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Introduction / Background
R&D in Timber Construction – Hybrid Timber Structures

Can be replaced by:



[Hermann Kaufmann]

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cost
FP 1402

KIT **TUM**

Introduction / Background
R&D in Timber Construction – Connections



[Wiehag]



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

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cost
FP 1402

KIT **TUM**

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



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cost
FP 1402

KIT **TUM**

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

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cost
FP 1402

KIT **TUM**

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

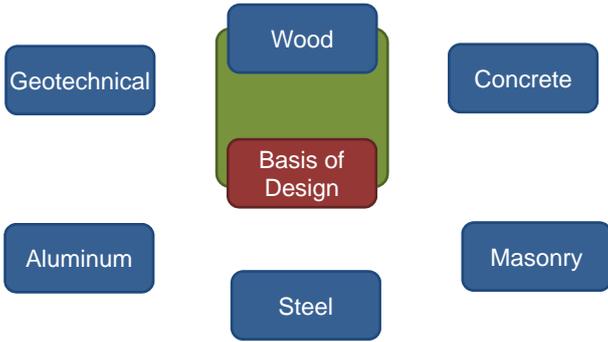
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Scientific Programme and Networking

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



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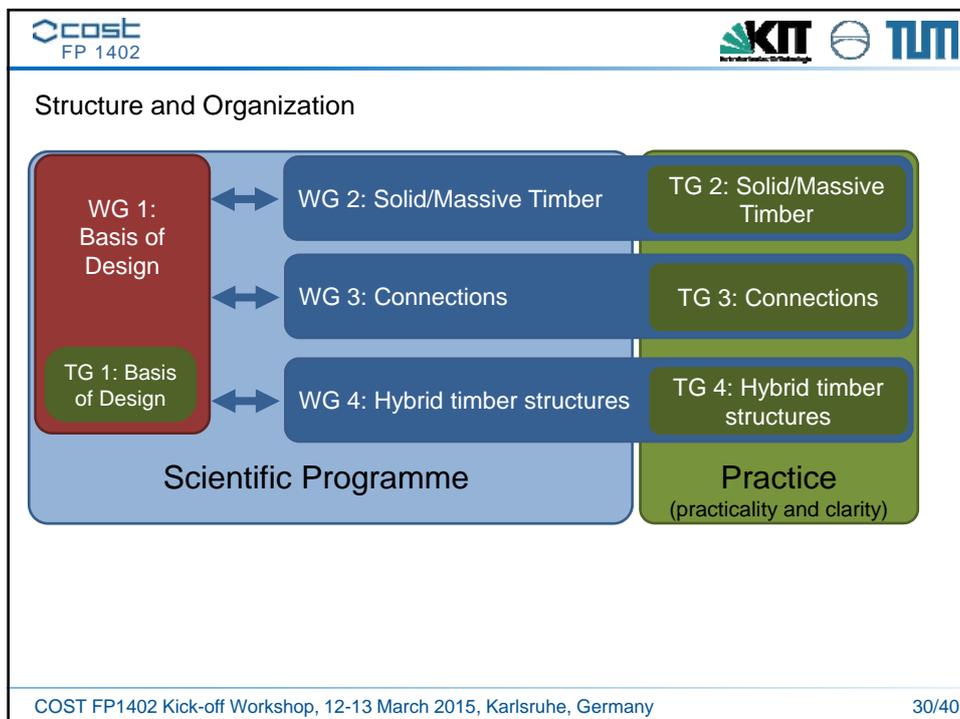
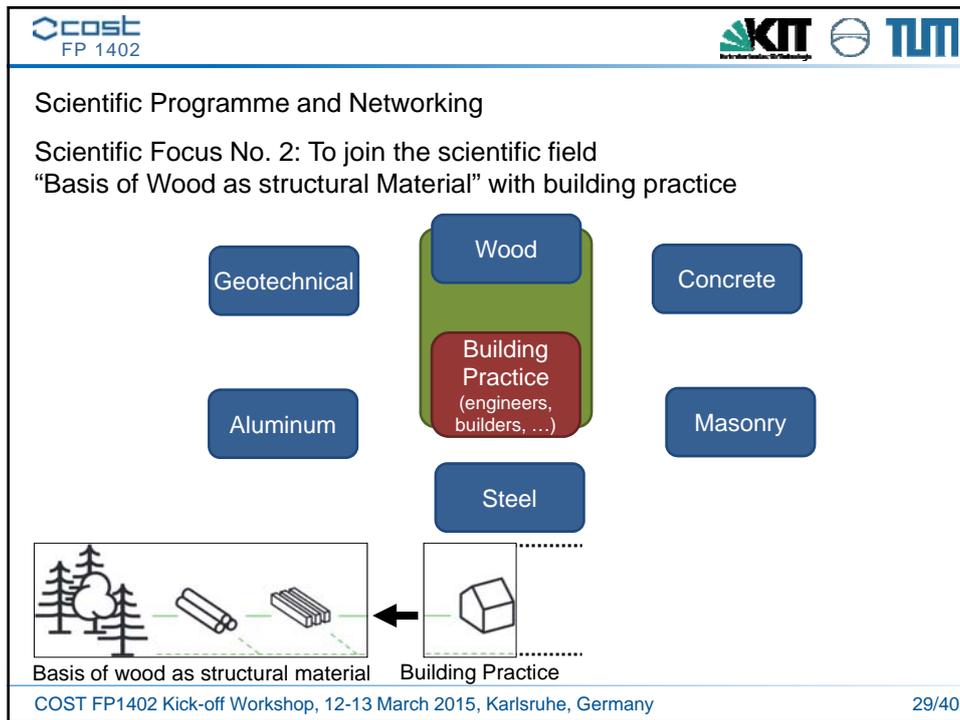
  

Scientific Programme and Networking

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

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

Science

Results

↑

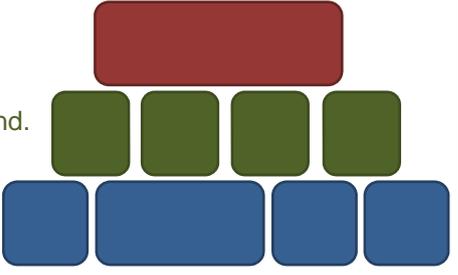
Materials

↑

Methods

Practice - Standards

Design standards
(e.g. Eurocode 5)



Material/Product stand.
(e.g. EN 14080)

Test standards
(e.g. EN 408)

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Instruments

Organisation	Management committee (MC) meetings Core Group (CG) meetings
Research	Workshops Working group (WG) meetings Short-term scientific missions
Dissemination / Education	Training schools (TS) Conferences Peer-reviewed papers Best practice guides Final report

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Instruments and Dissemination

Workshops, WG meetings, Short Term Scientific Missions (STSMs)

- analysis of current state-of-the art in practice (applicable?),
- comparison of this to recent research results (valid?)
- design proposals

Peer-reviewed articles → Background information

Best-practice guides → Proposals for standards → Link to standardization

WP 1:
Basis
Design

Best-practice-
guide (incl.
background
information)

→ STEP?

WP 2: Solid/Massive Timber

WP 3: Connections

WP 4: Hybrid timber structures

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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

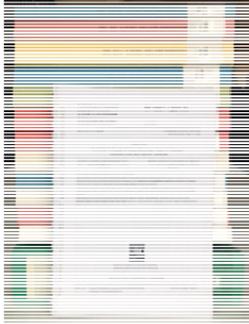
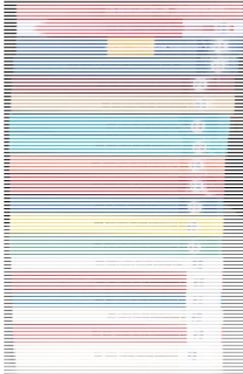
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Comparison and challenge

<p>CIB W-18 meetings Before ENV 1995-1-1</p>  <p>CIB W-18: 27 meetings → approx. 70 days of discussion → approx. 30 participants</p>	<p>CIB W-18 meetings Since ENV 1995-1-1</p>  <p>CIB W-18: 20 meetings → approx. 60 days of discussion → approx. 50 participants</p>	<p style="text-align: center;"></p> <ol style="list-style-type: none"> 1) Guideline: basis of design 2) Guide/EN section: design of CLT structures 3) Guide/Revised EN section „dowel-type connections“ 4) Guide/EN part: Timber-concrete composite struct. <p>COST FP1402 → approx. 12 – 16 days → approx. 60 participants → but: STSMs!</p>
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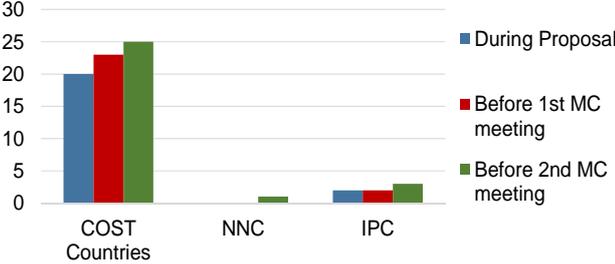





Participation

Countries

Country Participation



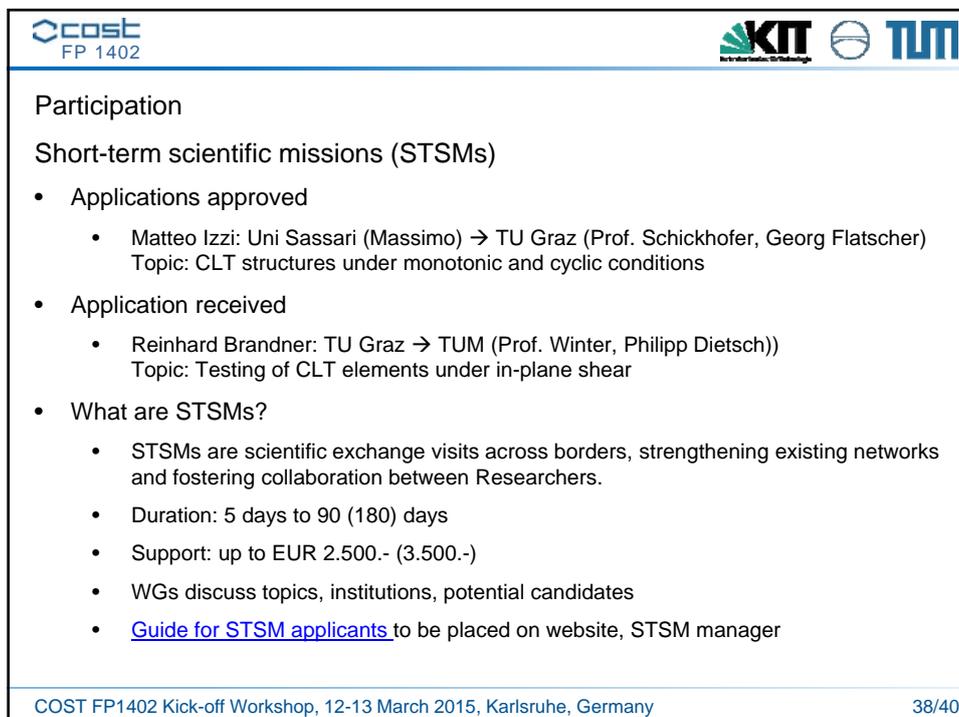
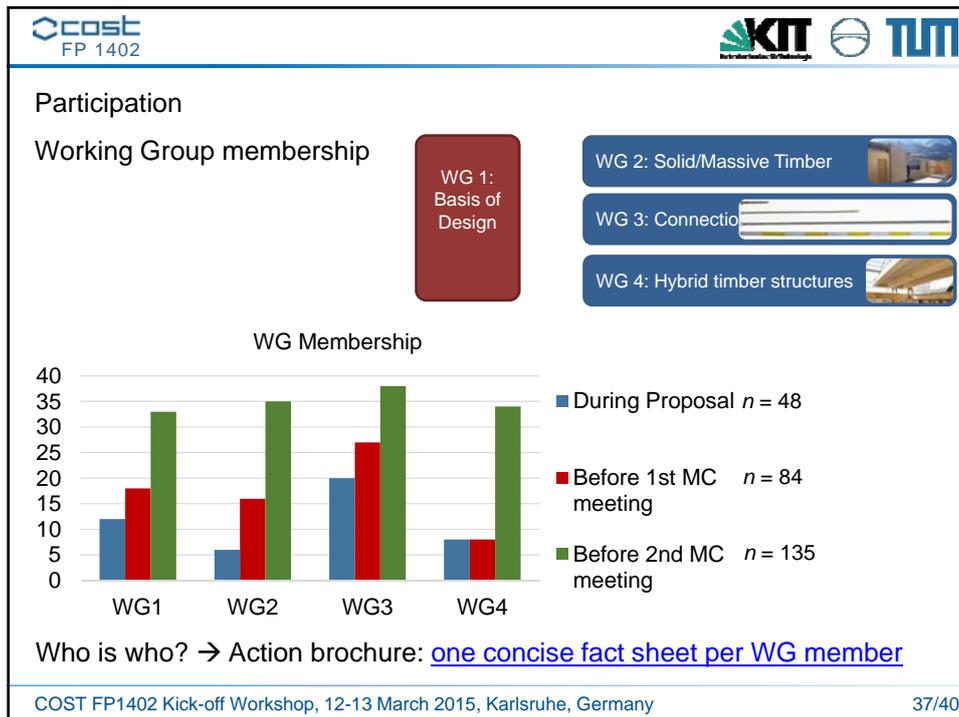
Category	During Proposal	Before 1st MC meeting	Before 2nd MC meeting
COST Countries	20	23	25
NNC	0	0	1
IPC	2	2	3



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]

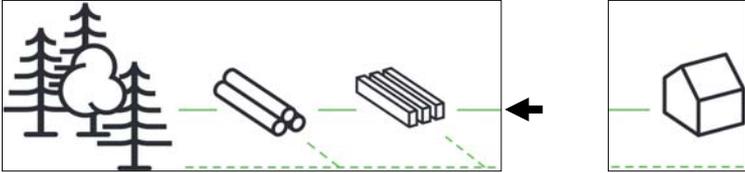
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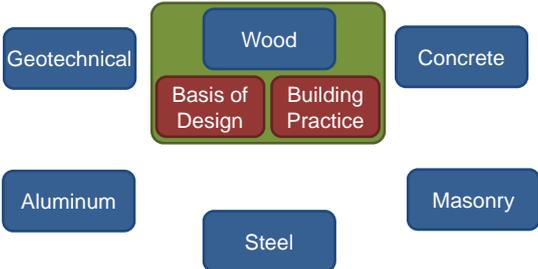


Summary



Closing the gap



Multidisciplinary approach



Cross-European network

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