



Safety in Design - OSH Construction Coordination in Europe

ISHCCO

Dr. Reinhard Obermaier - President

International Safety & Health Construction Co-ordinator's Organisation

www.ishcco.org

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VISION ZERO



ISHCCO Members

ISHCCO
International Safety and Health Construction Co-ordinators Organisation

Founded in 2002

European Umbrella Association of
Coordinators for Safety and Health Matters



Member Countries – Member Associations

AT: BAUKO, BE: VC-CS, CH: Lobsiger & P. GmbH,
CY: CYACE (SPOLMIK), CZ: CSSK, DE: VSDI & VSGK,
DK: IDA, ES: ACSYS, FR: GOK SPS,
IT: AIAS, LU: ACSL, PT: OET, SK: BOZPO

Representing

60.000 SHCC

(Safety and Health Construction Co-ordinator)



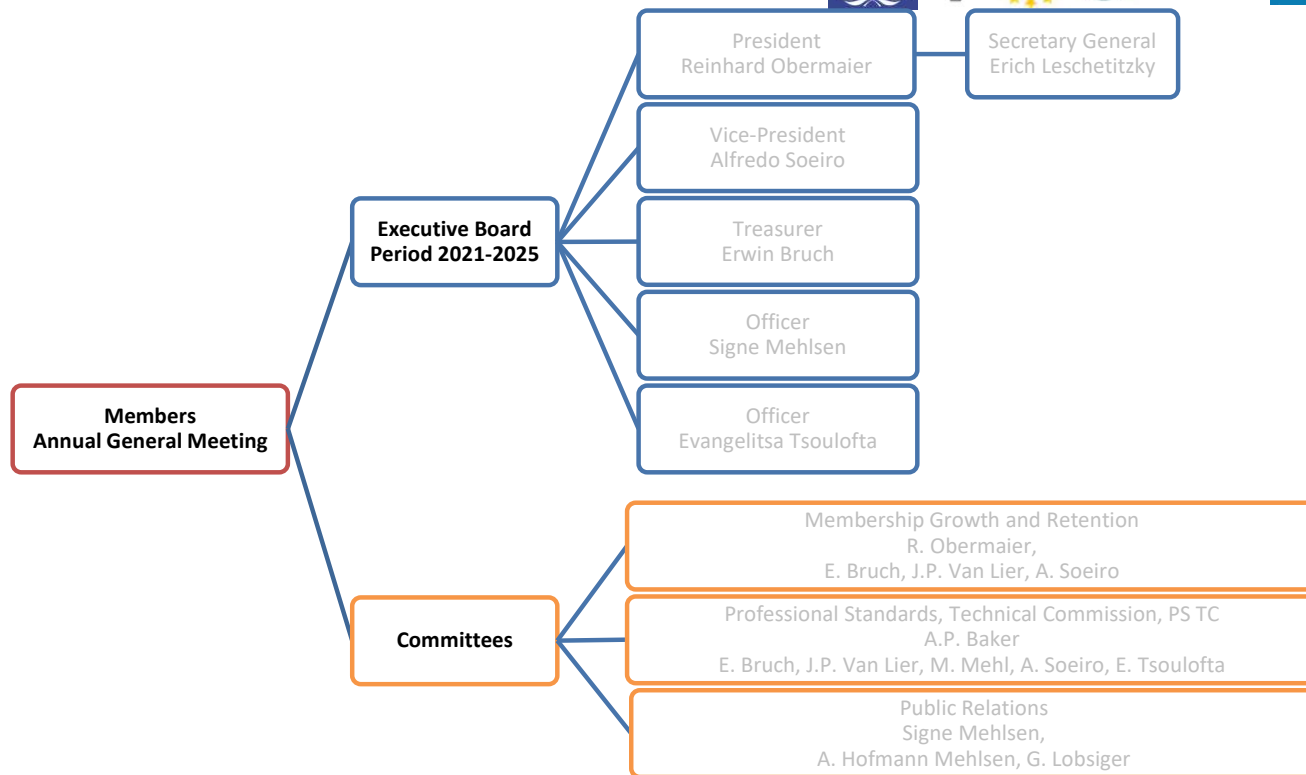
VISION ZERO

IQEMS - Safety in Design - OSH Construction Coordination in Europe

12.09.2023

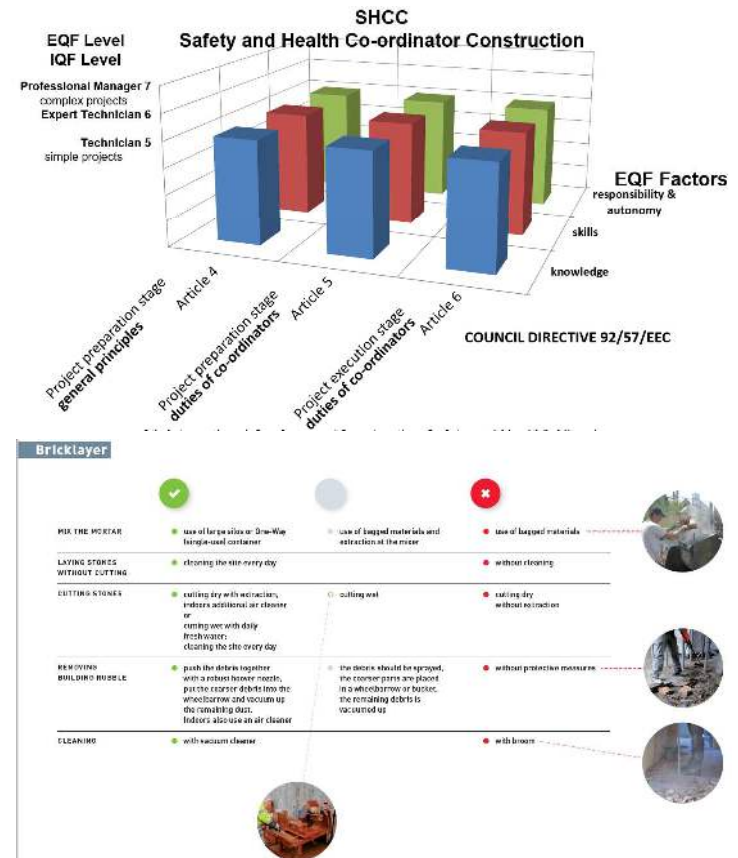


ISHCCO Mission



Publications of ISHCCO

- Recurrent reports on the implementation of GL 92/57 in Europe
- ISHCCO Qualification Framework (IQF)
- Reducing Respirable Crystalline Silica Dust Effectively (RCSD) mapping of good practise
32 craft / 12 EU languages
by EFBWW & FIEC www.fiec.eu RCSD)



RCSD Mapping - Bricklayer

Bricklayer



MIX THE MORTAR

- use of large silos or One-Way (single-use) container

- use of bagged materials and extraction at the mixer

- use of bagged materials



LAYING STONES WITHOUT CUTTING

- cleaning the site every day

- without cleaning

CUTTING STONES

- cutting dry with extraction, indoors additional air cleaner or cutting wet with daily fresh water; cleaning the site every day

- cutting wet

- cutting dry without extraction

REMOVING BUILDING RUBBLE

- push the debris together with a robust Hoover nozzle, put the coarser debris into the wheelbarrow and vacuum up the remaining dust. Indoors also use an air cleaner

- the debris should be sprayed, the coarser parts are placed in a wheelbarrow or bucket, the remaining debris is vacuumed up

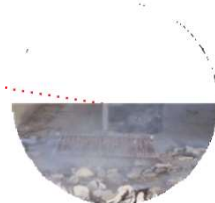
- without protective measures



CLEANING

- with vacuum cleaner

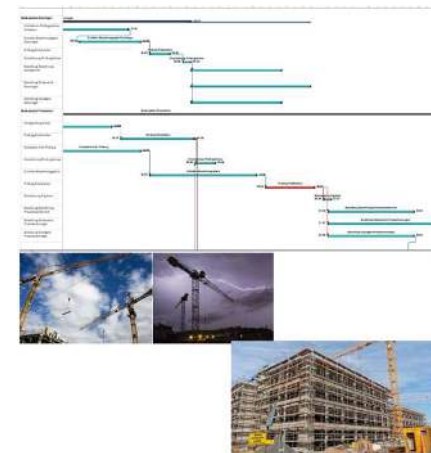
- with broom



Construction Sites

Construction Site an extraordinary workplace

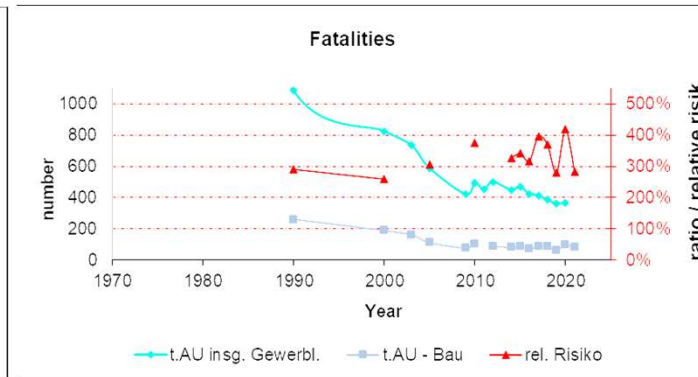
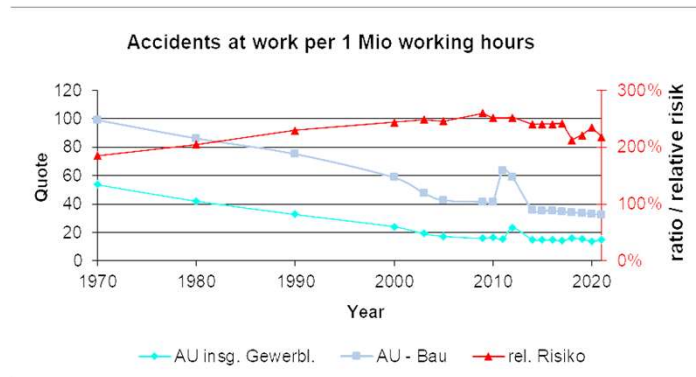
- **Temporary working place**
- **Workplaces with changing conditions**
 - Progress of the construction project
 - Building, traffic routes, infrastructure facilities, plant complexes
 - New construction, renovation, deconstruction
 - Weather
 - Unstable safety environment
 - Protective measures must be actively created
- **Several / many companies**
 - simultaneously at the same site
 - one after the other - conditions encountered
 - Different working methods, protective measures:
 - Responsibility for health and safety per company
 - Mutual hazards and risks
 - different cultures and languages:
- **time and cost pressures**



technical standards: home country v. country of the site

communication, social behaviour and manners, nutrition
wages, living expenses (at site and home)

Construction Sites



Risks

Accident:
2-times
Fatality:
3-times

Fatal: Rout Causes 60 % by decisions prior to work



Situation 2012 *
35,1 % of the of the avoidable fatal accidents originate
from causes in the planning phase

Confirms the assessment in 1992

*) PhD Thesis (2009-2013)
Bianca Vasconcelos, Universidade Pernambuco, Brasil
Prof. Alfredo Soeiro Universidade Porto, Portugal

SHCC – The Mandate

Safety and Health Construction Coordination (SHCC)

**Initiate and accompany measures to coordinate safety and health (of employees)
and to ensure their implementation**

- **Coordination in planning** (planning phase)
 - Initiating and coordinating measures
 - Information on structure and design for safe working
general principles of prevention and safety
 - Setup of the safety and health plan (S&H-Plan)
 - Prior notice
- **Coordination in execution** (construction phase)
 - Safety and health plan
 - Publication / Distribution
 - Implementation
 - Update
 - Establishment of a health and safety regime and monitoring
 - Information on mutual risks and planned protective measures
Including the adaption of changes
 - Initiating OSH control measures
 - Implementation of the Follow-up of deviations
- **Safe, subsequent work on the structure**
 - Initiate and assemble the health and safety documentation (**the File**)



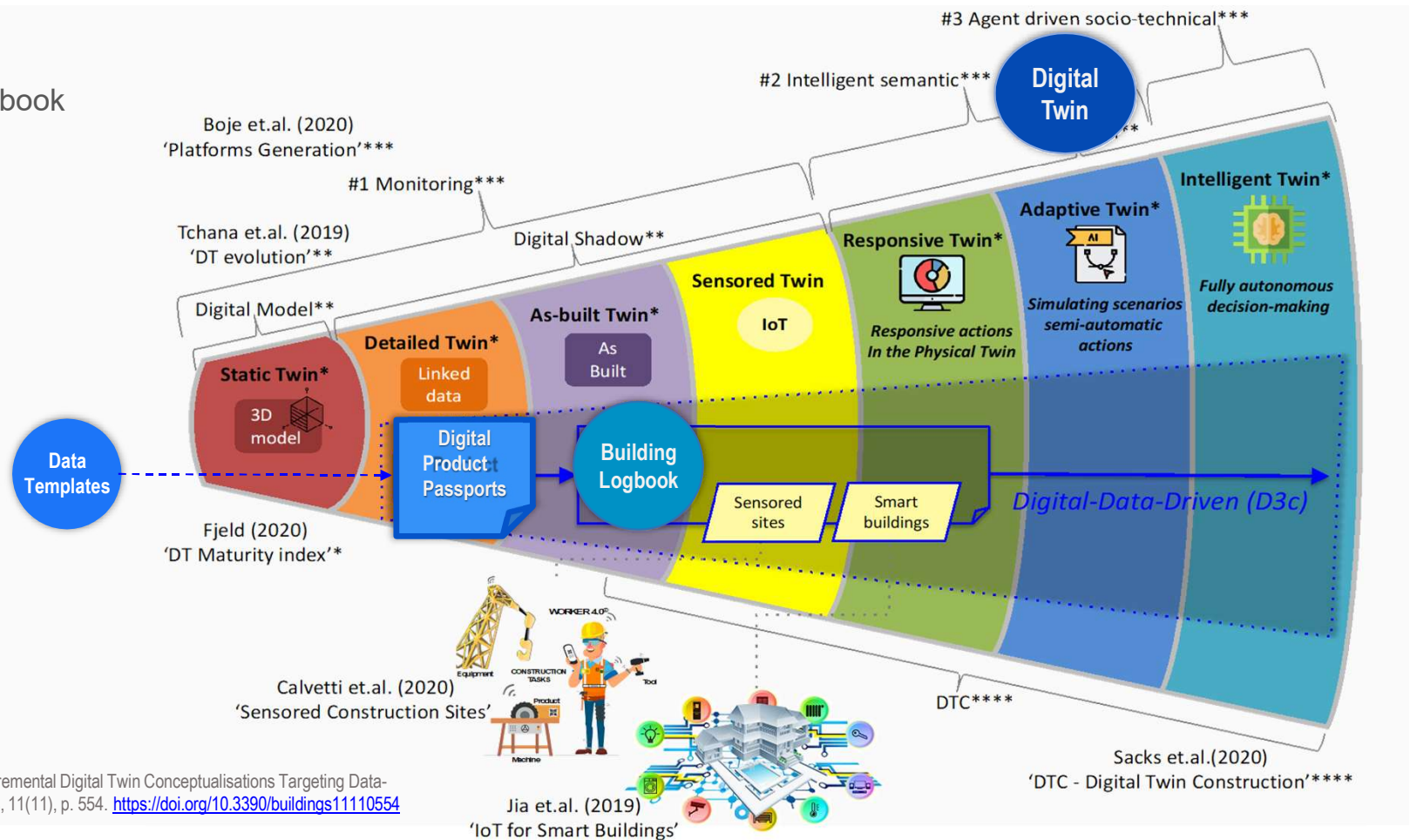
SHCC – The Mandate

Safety and Health Construction Coordination (SHCC)

- The task is: to
 - To apply the OSH regulations
 - To introduce good and approved praxis
 - To adapt the OSH measures specifically - what is needed at the particular project
 - To arrange a system enabling the contractors to provide the OSH measures in time
- The SHCC guides the client towards a safe project as
**designer of the
inherent, specific safe & healthy works at the construction project**

2 BACKGROUND – REVIEW

DBL value-chain Digital Building Logbook

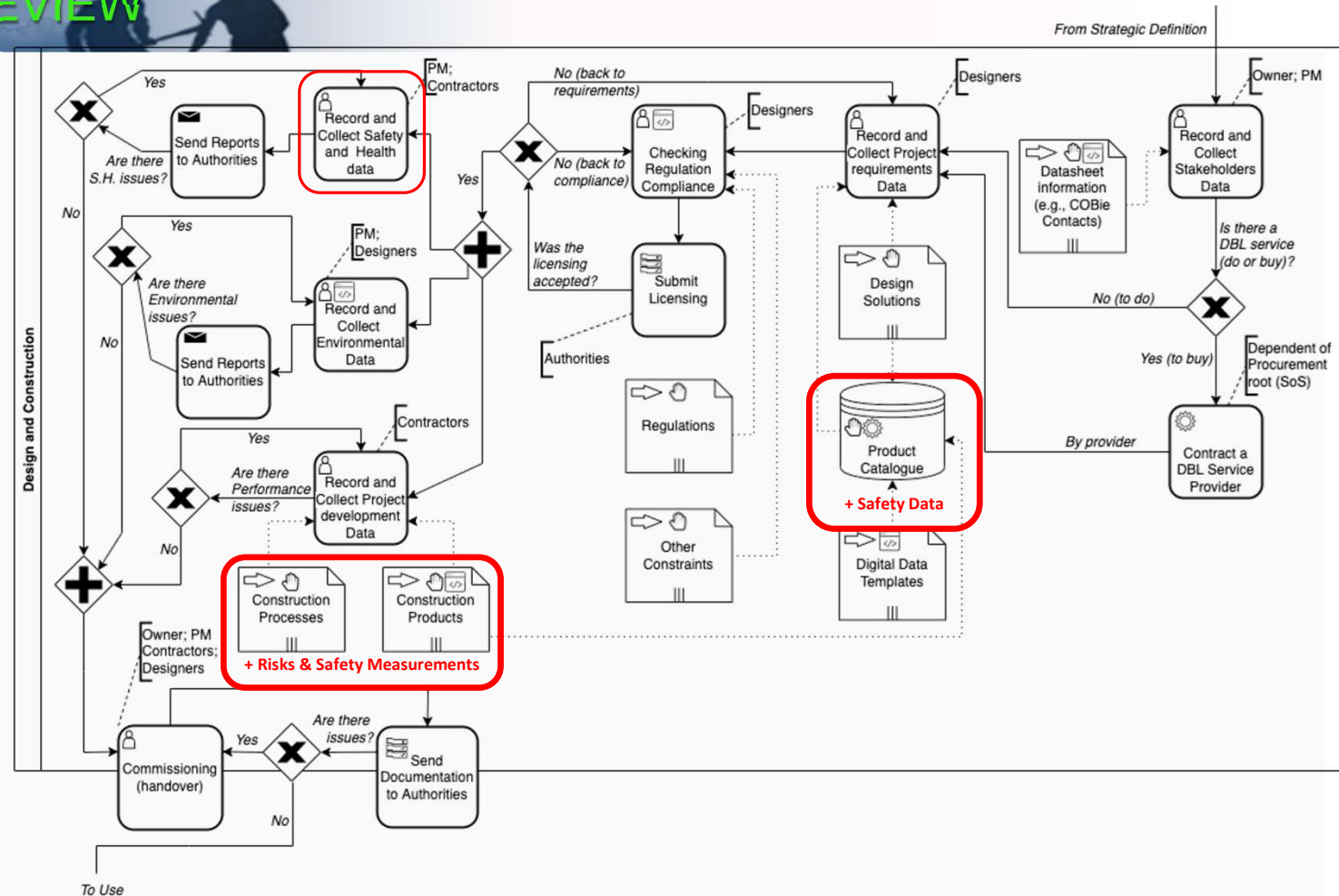


Reference:

Mêda, P., Calveti, D., et al. (2021) 'Incremental Digital Twin Conceptualisations Targeting Data-Driven Circular Construction', Buildings, 11(11), p. 554. <https://doi.org/10.3390/buildings11110554>

2 BACKGROUND – REVIEW

DBL – Digital Building Logbook
BPMN – Business Process Model Notation

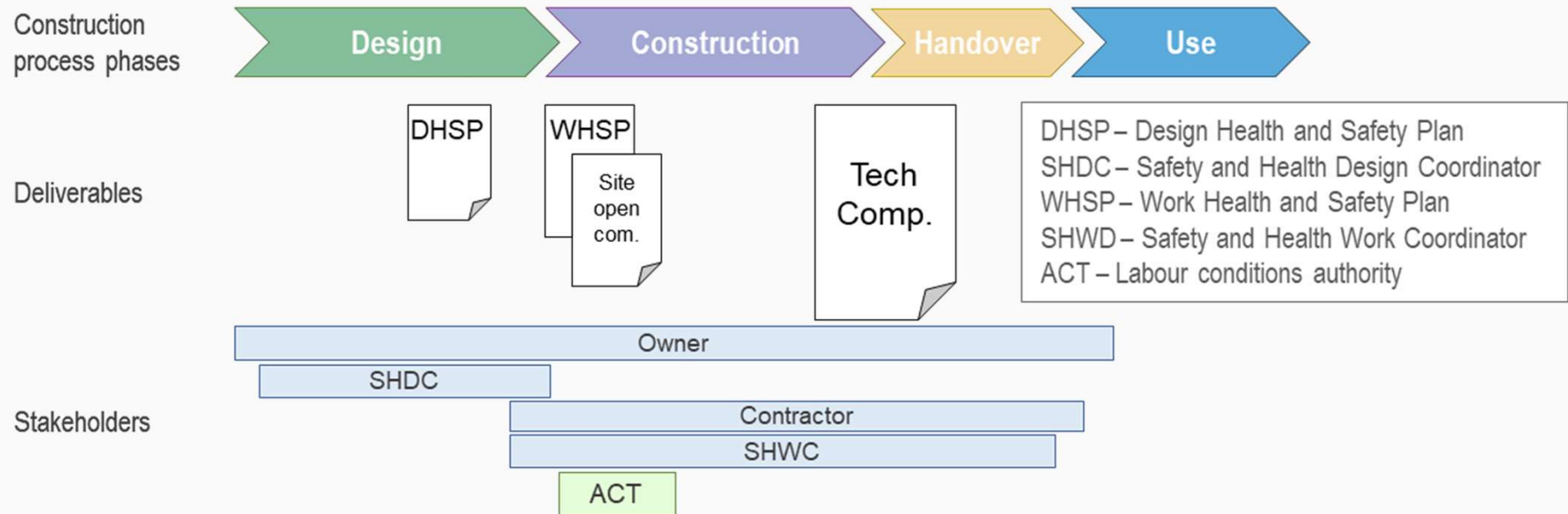


References:

Mêda, P. et al. (2022) 'A Process-Based Framework for Digital Building Logbooks', EC3 2022 European Conference on Computing in Construction. Ixia: EC3, p. 8.
<https://doi.org/10.35490/EC3.2022.183>

3 DBL USE CASE

SH Deliverables and involved Stakeholders through the construction process

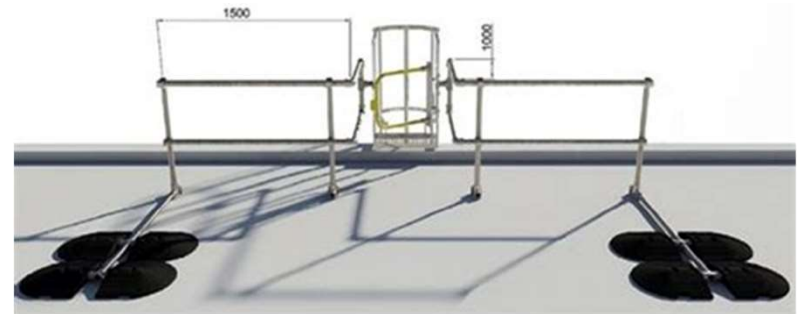




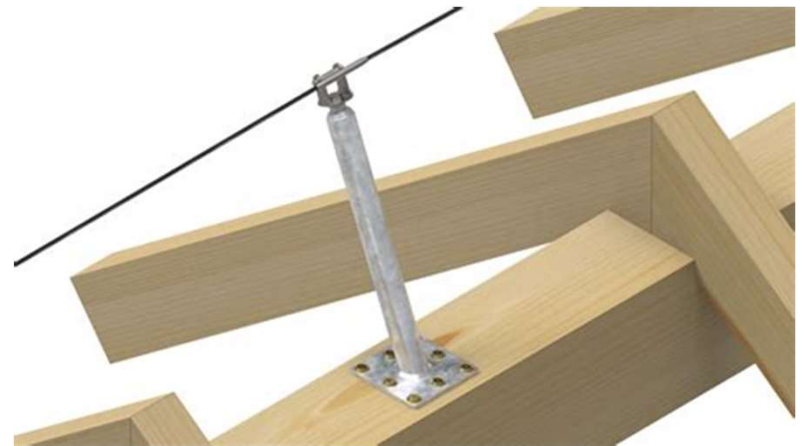
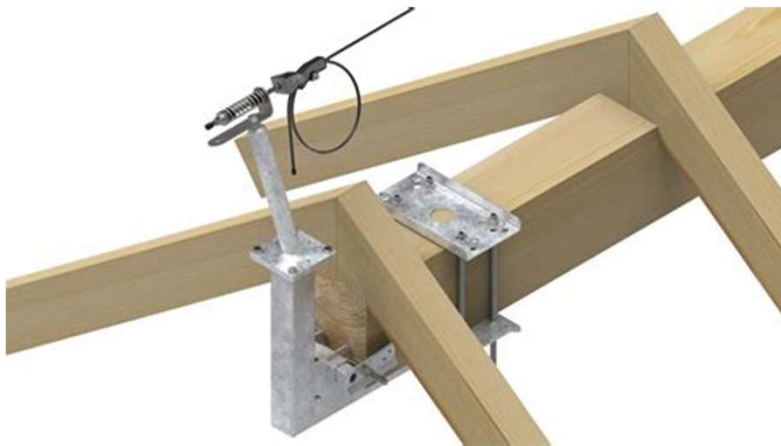
Digital planning



Fall protection – flat roofs

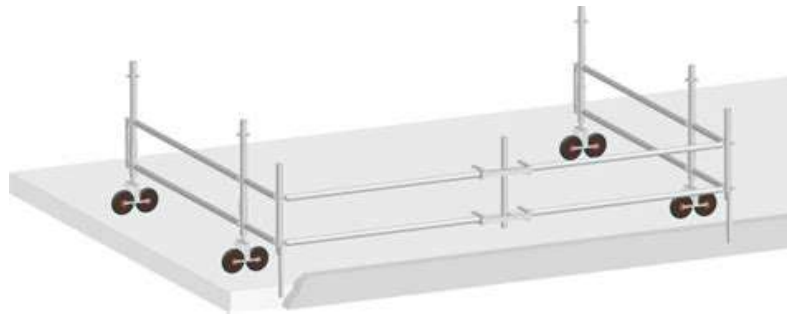


Pre-installed safety railing

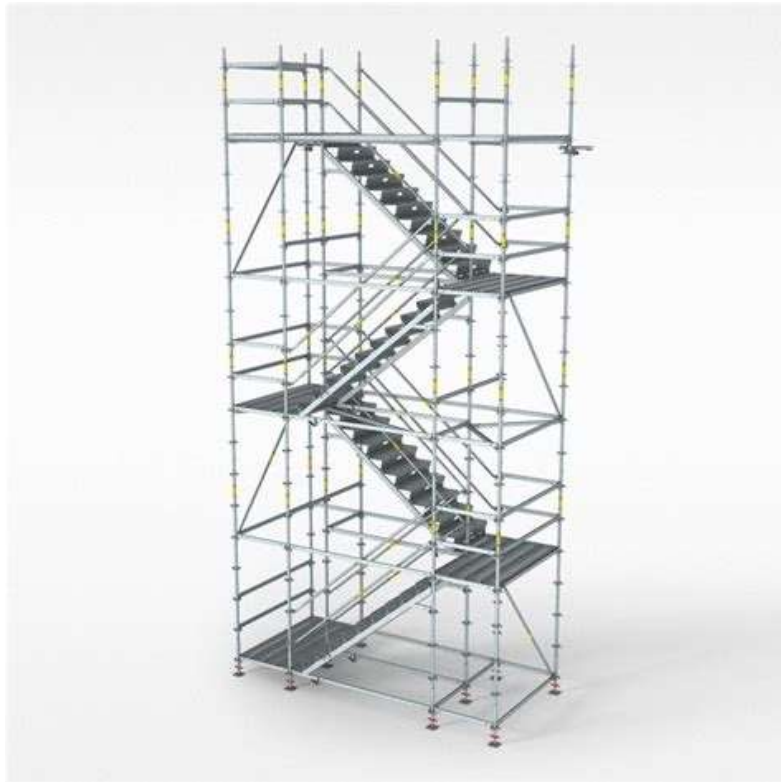




Temporarily fall protection



Temporarily access





Climbing working places





Summary SHCC

- ISHCCO European Umbrella Association for Safety and Health Coordination
- 2/3 of fatal accidents due to decisions prior to work
- Planned safety for the execution phase
- Planned safety for the use of the building
- Digital planning systems in development

**SHCC is the designer of the
inherent, specific safe & healthy works at the construction project**

Thank you for your attention.

Do you have questions?

I am looking forward to your suggestions.

Dr. R. Obermaier, President

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