

CONSTRUCTION PROCESS AND ITS HUMAN IMPACTS



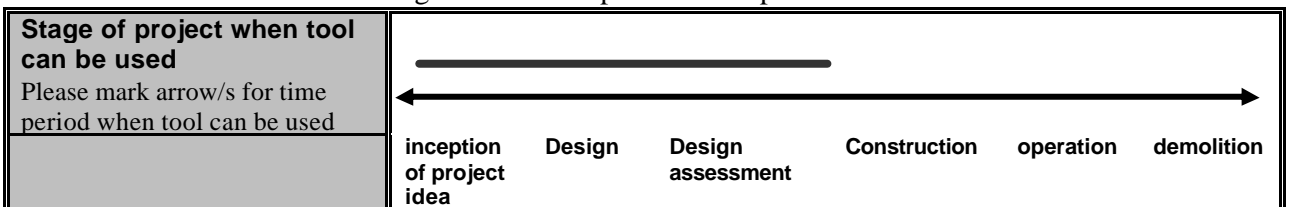
WHAT'S THE PROBLEM ?

The building sector has the highest number of fatal accidents, disabled workers and absentees. The today share of material transport in the building costs is 25%.

By moving the building construction from the building site to the workshop, safety and working conditions will improve drastically.

TIME AND SPACE SCALES' CHARACTERISTICS

The time scale concerns a building innovation implementation period.



The space scale is at building level.

Scale of project that can be investigated using the tool	Component	Building	Neighbourhood	City	Region
		X			

CONFLICTING AREAS?

Buildings manufactured industrially and sectionally will cut building waste, at present the largest contributor to waste streams.

CASE STUDIES LINK TO THIS ISSUE

The Emporium case study for example can be linked to this key-issue.

WHAT COULD BE ENHANCED TO IMPROVE SUSTAINABILITY?

Safe labour contributes to people, business, society and welfare. Material reduction contributes to biodiversity preservation.

Prefabricated buildings save accidents costs, and material and transport costs, for investments in a sustainable indoor climate.

Material reduction could decrease the today 25% transport share in building costs to a 6 to 10% share such as in industry. Industrial or prefabricated building processes had no influence as long as the building weight in the same time increased.

How?

Industrial, flexible, and detachable constructing improves the efficiency and labour conditions, delivers a higher and constant quality, reduces the raw material demand and waste production, and makes adaptations to changing requirements and wishes simple and payable.

Disassembling on system or component level avoids energy losses and unnecessary waste.

Prefabrication with small complex components instead of large heavy elements improves the reuse.