

Construction of a Prototype of an **I**ndustrial, **F**lexible and **D**emountable Apartment Building System

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Presentation topics:

- **IFD technology**
- **IFD today**
- **Construction prototype DUB Park**

IFD technology

Important aspects of IFD technology are:

- industrial construction: prefabrication, which means also less waste with the actual production, often production recycling is feasible;
- no waste on the building site, which is a boundary condition;
- construction becomes assembling: completely dry building method, which is also a boundary condition;
- flexible also means “changeable” during the course of life of the building, so there is also less waste;
- ...

IFD technology

Important aspects of IFD technology are:

- ...
- flexible in the design phase means for example that the developer of the building can wait until the last moment with final decisions about the lay-out of floors;
- demountable also means that reuse or at least recycling is possible;
- perhaps IFD technology can mean: less construction (in general).

Integration and independency of disciplines:

- supporting structure
- installations
- building envelope
- interior finishing

Completely dry construction method, which means:

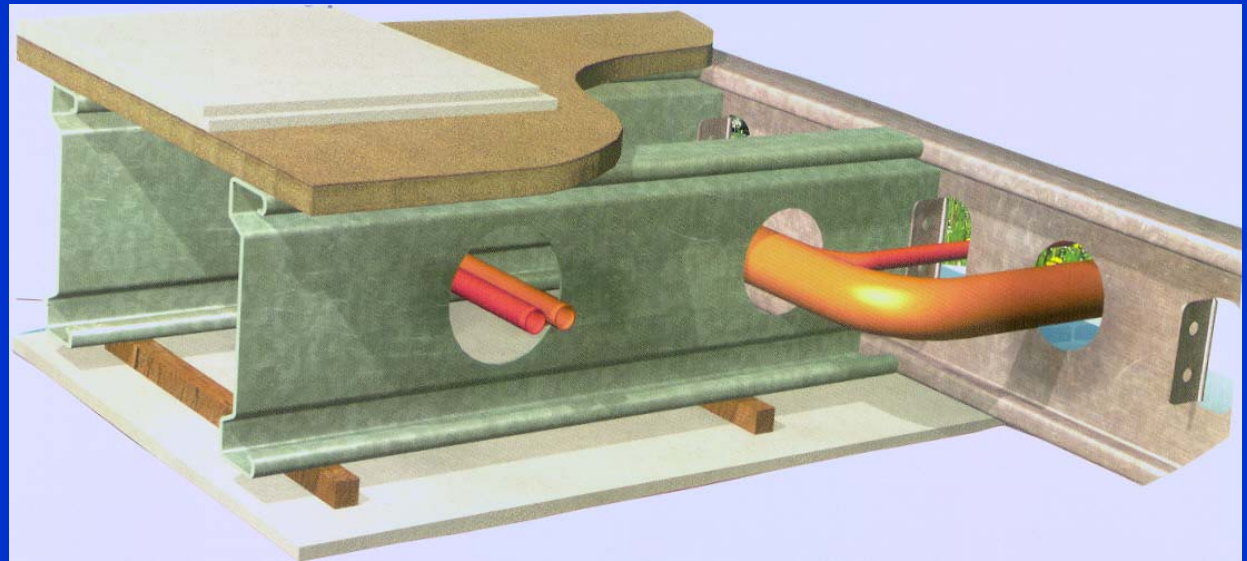
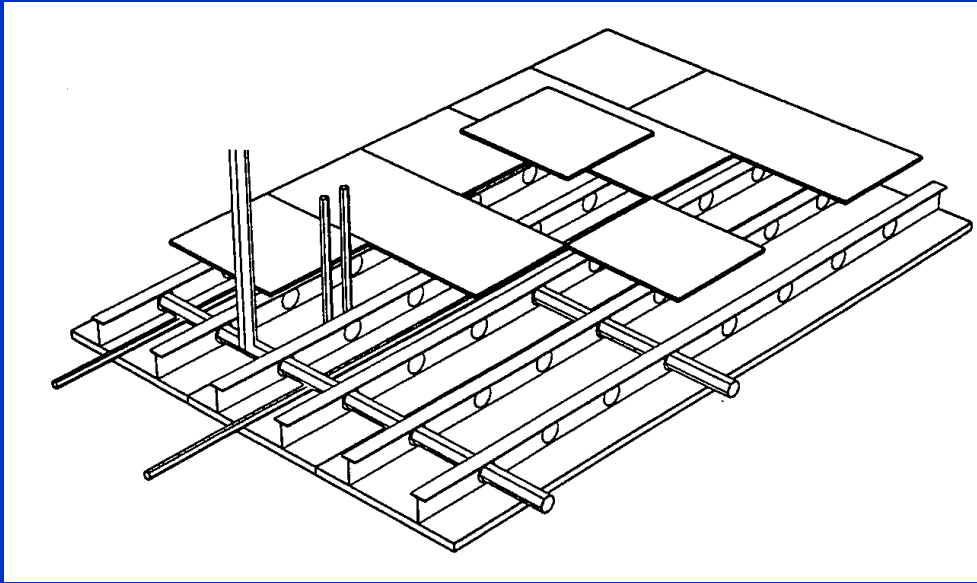
- no in situ concrete
- no mortar joints
- no screed floors
- no plaster
- no sealant
- no in situ polyurethane

Perfect modular measuring, which means:

- extreme attention to drawing work
- prototype testing on:
 - mountability
 - functionality
 - demountability
- quality system drawing work
- assembly instructions

Changeability on all aspects:

- supporting structure (limited)
- installation (practically unlimited)
- building envelope (limited and modular)
- interior finishing (practically unlimited and modular)



ifd today



Question housing corporations:

“In what way can possibilities to product differentiation's be realised in order to offer flexible possibilities for re-accommodation for inhabitants of the present apartment buildings, at the same time offering good accommodation to people with more purchasing power ?”.

The Construction of the Prototype



Conclusions:

IFD Building Technology can contribute substantially to the minimisation of waste during production of building components and the actual construction, but also during the course of life of the building and the demounting phase.

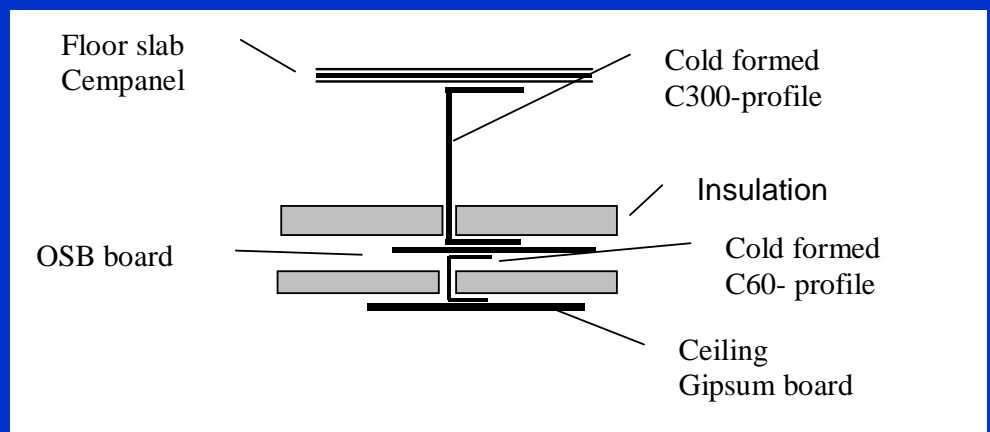
Simultaneously there is a positive effect on the environmental criteria exhaustion of raw materials and energy conservation.

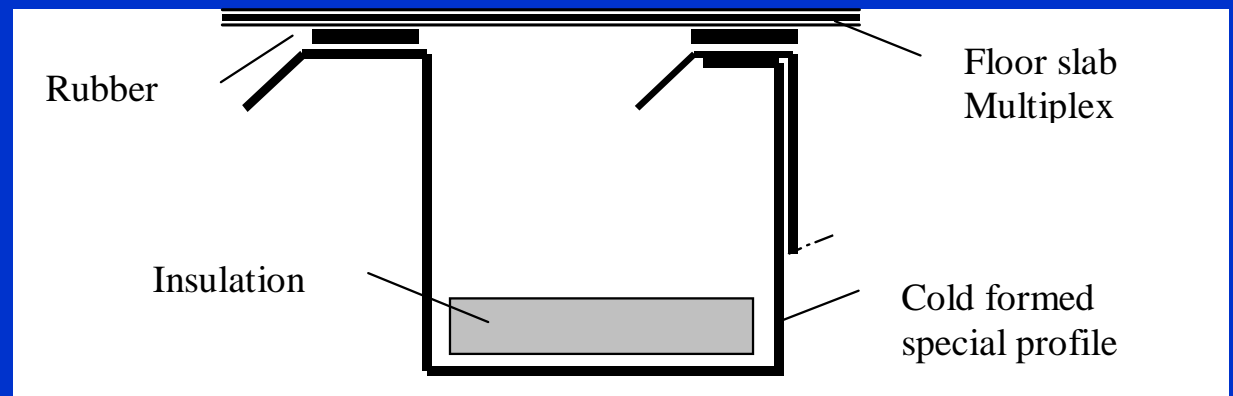
The IFD Today research program for apartment buildings will provide for detailed information to be applied on a real life pilot project.

































Onderzoek

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Further Research:

- **Measuring sound insulation, vibration floor and demountability**
- **Developing a research plan: real use by students**
- **Development a real building in co-operation with a corporation**

