Innovation by addition
Traditional building process

- Structure
- Envelope
- Services
- Interior
- Completion

Innovation by addition
Centre Pompidou, Paris

Lloyds building, London
Habraken en Van Randen

prof. John Habraken (1961): “We should not try to forecast what will happen, but try to make provision for what cannot be foreseen”.
Slimline Buildings

Wingvloer

Leidingvloer

FlexCasco
Slimbouwen building process (sequential process)

structure -> envelope

services

interior

completion
Purac Building
(commercial building)
Gorinchem
Van Delft Groep Building,  
(commercial building)  
Nieuwkuijk
IW&V building, Eindhoven
La Fenêtre
(domestic building)
Den Haag
Kraanspoor
(commercial building)
Amsterdam
Trias Energetica as an approach for energy saving

The Trias Energetica concept: the most sustainable energy is saved energy.

1. Reduce the demand for energy by avoiding waste and implementing energy-saving measures.

2. Use sustainable sources of energy instead of finite fossil fuels.

3. Produce- and use fossil energy as efficiently possible.
## Insulation of exterior walls in The Netherlands, Germany and France

<table>
<thead>
<tr>
<th>Netherlands</th>
<th>Germany</th>
<th>France</th>
</tr>
</thead>
<tbody>
<tr>
<td>outside</td>
<td>outside</td>
<td>outside</td>
</tr>
<tr>
<td>inside</td>
<td>inside</td>
<td>inside</td>
</tr>
</tbody>
</table>

**Innovation by addition**

- **The Netherlands**: Showing a section of a wall with insulation on the outside and inside.
- **Germany**: Highlighting the wall with insulation on both the outside and inside, emphasizing the dual approach.
- **France**: Illustrating the process of applying insulation on the inside, indicating a different approach compared to the other countries.

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*Energy Days / 11 February 2010 / Jos Lichtenberg*
<table>
<thead>
<tr>
<th>Netherlands</th>
<th>Passif House</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>outside</strong></td>
<td><strong>inside</strong></td>
</tr>
<tr>
<td>100 mm</td>
<td>300 mm</td>
</tr>
</tbody>
</table>

**Traditional vs. Passif level**

Innovation by addition

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