3dp2
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What I learned as a designer in the building industry:

There is no product if there is no one to buy it.
Sophisticated products need a large market share
Everyone who is involved becomes better from it
The easiest way is to change nothing
Computers are not fabricated on the building site

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Can we learn from existing industrial produced building products?
At first we started to build with materials found on the building site
Everybody had the problem how to build a wall. So small scale production from bricks was possible.

Know how was necessary. The market share increased
More know how was needed. The market share is again increased.

The development of the infrastructure creates production facilities away from the building site. They produce more and better products.
Next step
A- Market growth by further innovation in functionality
   Oft innovation by regulation

B- Growth through production from new, neighboring, products.
   Widening the market share.

A step in the direction of manufacturing systems
Problem is the lack of system knowledge.
This is on the building site and not in the production facility
Can we learn from existing industrial produced building products?

Examples of today
KISS: a consumer oriented electrical system
KISS structure

From measure unit through the concrete floor to the skirting connector

Mounted while building the residence structure

distribution in skirting to sockets

mounted in accordance to customer when residence is finished
Fast to assemble
Sockets are there where you want them
No interference with building logistics
Sockets can always be changed
Infrastructure can always be changed
More functionality (data and home automation)
More expensive (cheap to assemble)
What where some of the difficulties:

The electrician wants to spend more hours on the building site in stead of selling more products (more sockets, colors, home automation).

Its too expensive according the electrician.

The consumer is not aware of the existence of this system.
Reaction in the market

The branch organization with their partners introduced a system with two times the same traditional infrastructure with 230v, television and data
Manufacturer of ventilation units noticed that the units and infrastructure did not deliver the performance as they did aspect.

Many complaints from inhabitants

They started to develop a system for ventilation on demand.
Fast to assemble (flexible hoses)
Easy to clean
No noise
Automatic valves located central in the system
Low energy
Platform for innovations
What are some of the difficulties:

Many hoses in the concrete floors

The pipefitter wants to create a system from cheap products

The consumer is not aware of the existence of this system
Brink: sells a system with the possibility to ventilate the living room or the sleeping rooms (day/night)

Itho: sells a system with provides fresh air through the ventilation vents in the windows. The used air is leaving the house through a system of pipes with automatic valves

Reaction in the market
Annex 44

How to get an idea into production?
First step- find a standard for RBE’s concepts
Concepts can be developed.
Small scale production can be achieved
What about industrial production?
Is the (consumer) market ready for large scale industrialization of environmental friendly solutions?
Who is the problem owner? The government of myself?

The Dutch government signed the Kyoto agreements
So she became the problem owner
She has to subsidize initiatives
She creates a artificial market - innovation by regulation

This alone will hardly result in the large market with is necessary for mass produced, intelligent, products.
Again: can we learn from existing industrial produced building products?
Technology is not the (main) problem

Develop a innovators culture in the building industry

Create a (consumer) demand

Create awareness
More Al Gore’s needed!