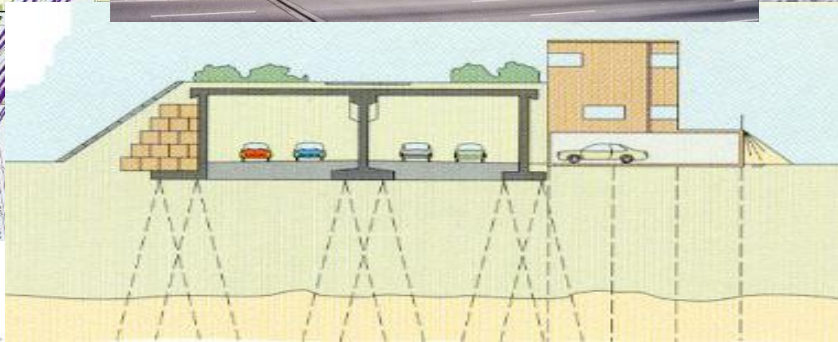
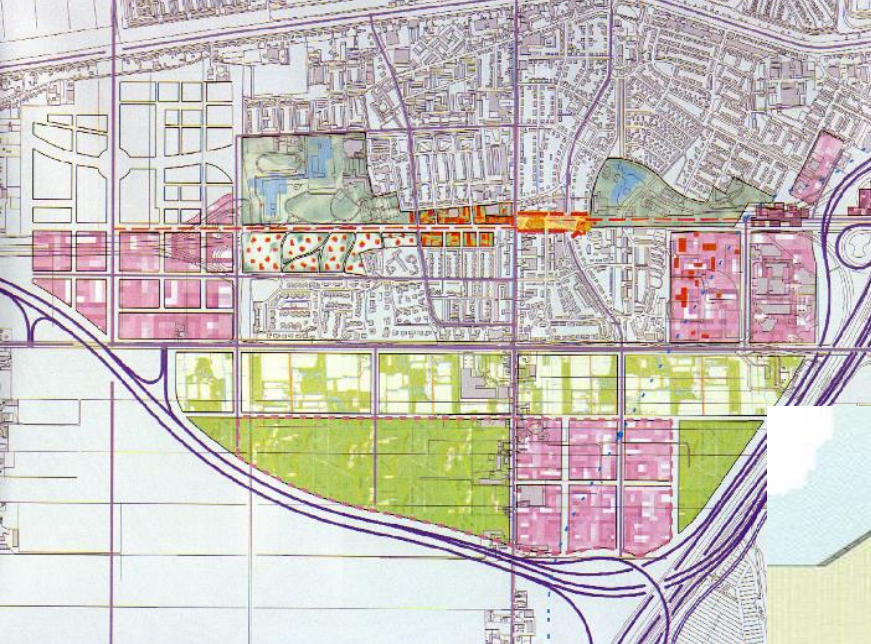


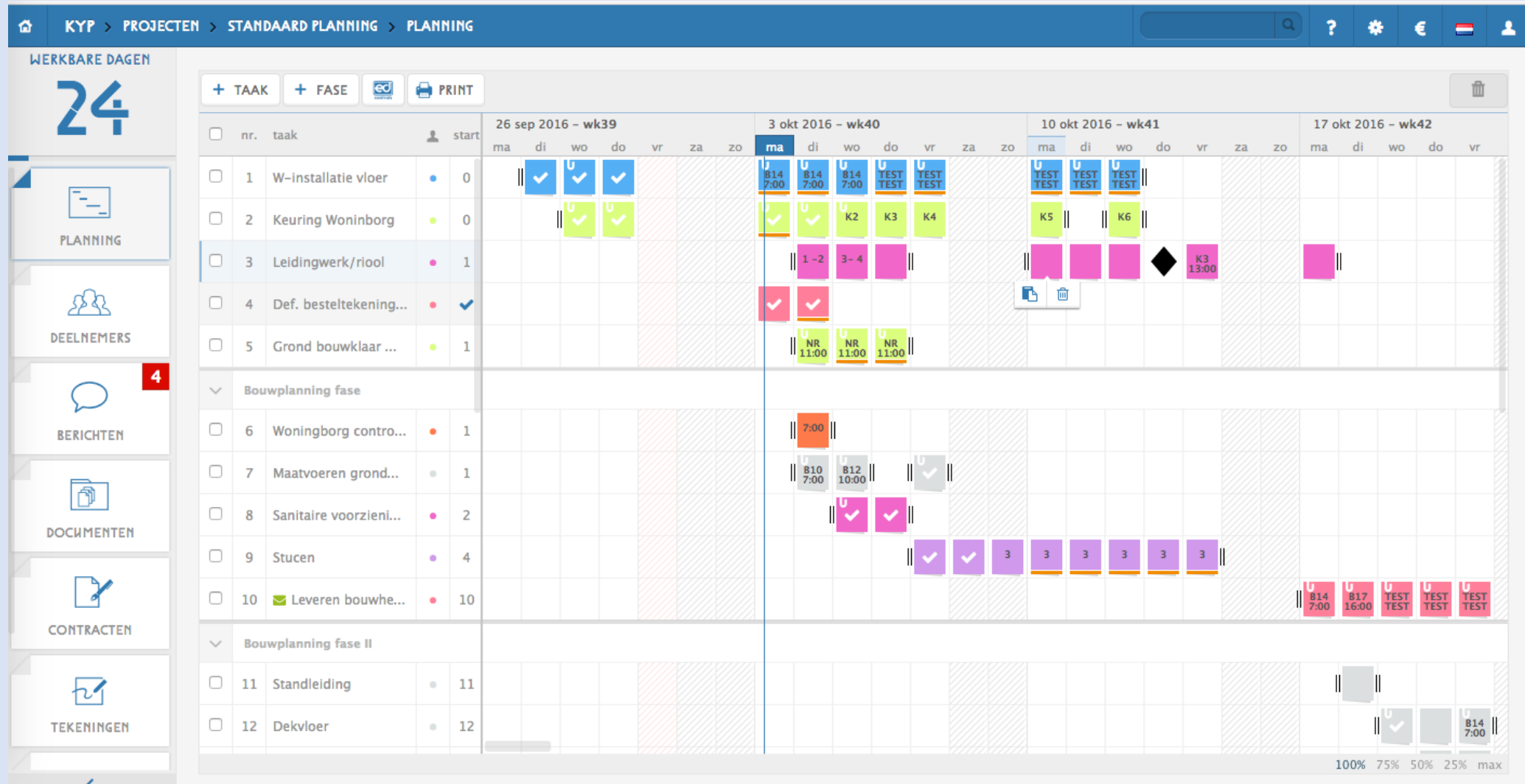
# DARE to DIGITIZE

Stan Roestenberg



# KYP PROJECT

PLAN > VERBIND > VERBETER



# More profit through digitalization

- Current average profit for construction industry is 2-3%
- Increase of profit is limited through higher prices because of the “transparency” of the market
- Increase of profit is easy by lowering costs
- Lower costs, with an equal commercial price, results in:
  - More profit => more budget for innovation
  - The cost of a project decreases => “expansive” innovation become feasible

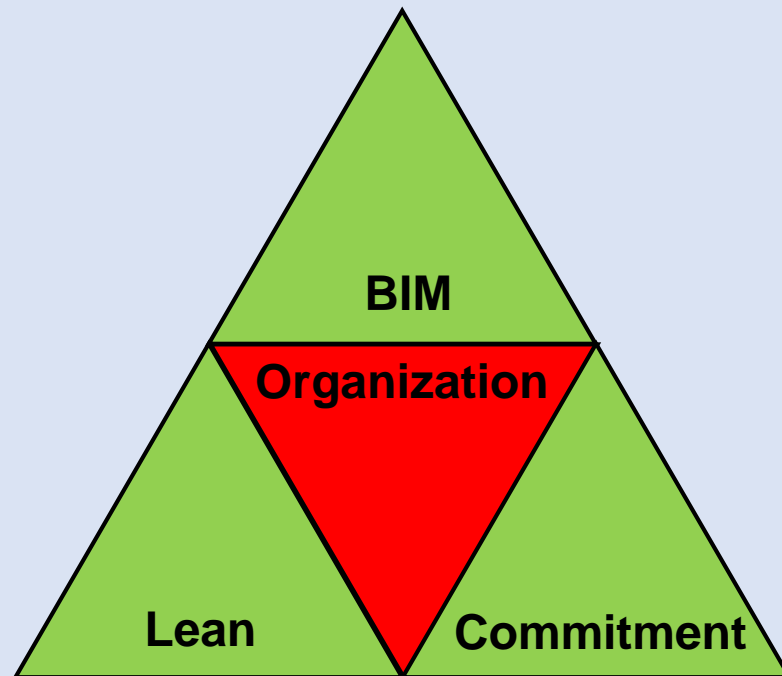
# DARE to DIGITIZE

- Current industry 80-90% of subcontractors are not able to work with BIM (contrary to what they say/pretend)
- LEAN is about “putting post-it’s on a wall” just before start of construction
- Low profit is caused by the “purchasing department” because building partners are selected on price not on added value or level of digitalization

# DARE to DIGITIZE

- Place BIM and the digital planning in the hart of the project (communication)
- LEAN needs a digital follow up to facilitate “Keep Your Promise”
- Select building partners based on their capabilities (product and digital information/process)

# DARE to DIGITIZE



**ENBLOC**

# OLYMPUS

Your Vision, Our Future

3.000 m<sup>2</sup> office  
Construction time 5,5 month  
5 building partners

15% cost reduction

# ENBLOC





**BIM,**

**LEAN,**

**Organise  
Commitment**

- without General Contractor,
- without Superintendent,
- without Technical Specification Document
- **with** building partners
- **with** 15% cost reduction
- **with** use of existing technology

**ENBLOC**

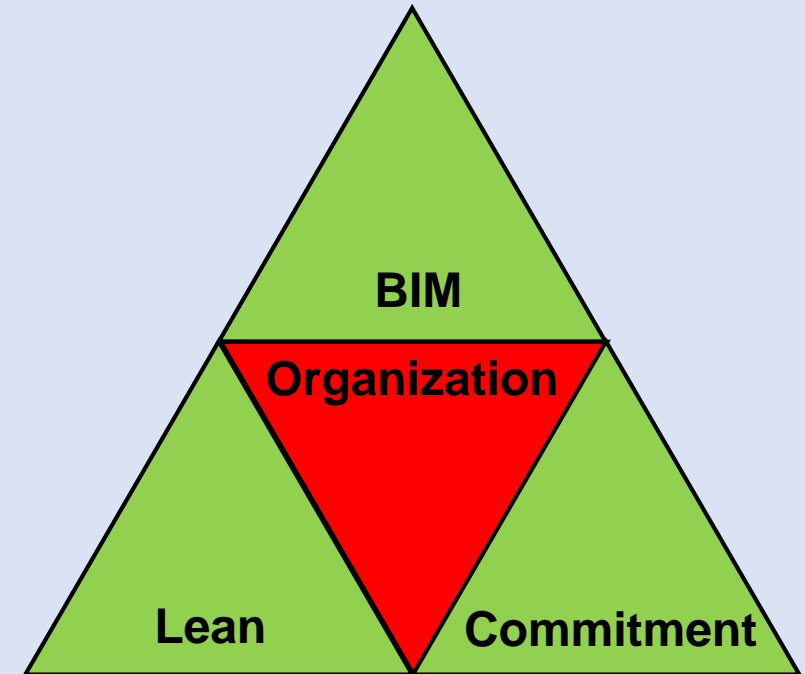
# HOW ?

**Clear demarcation = BIM**

**LEAN in all processes**

**Commitment = product focus**

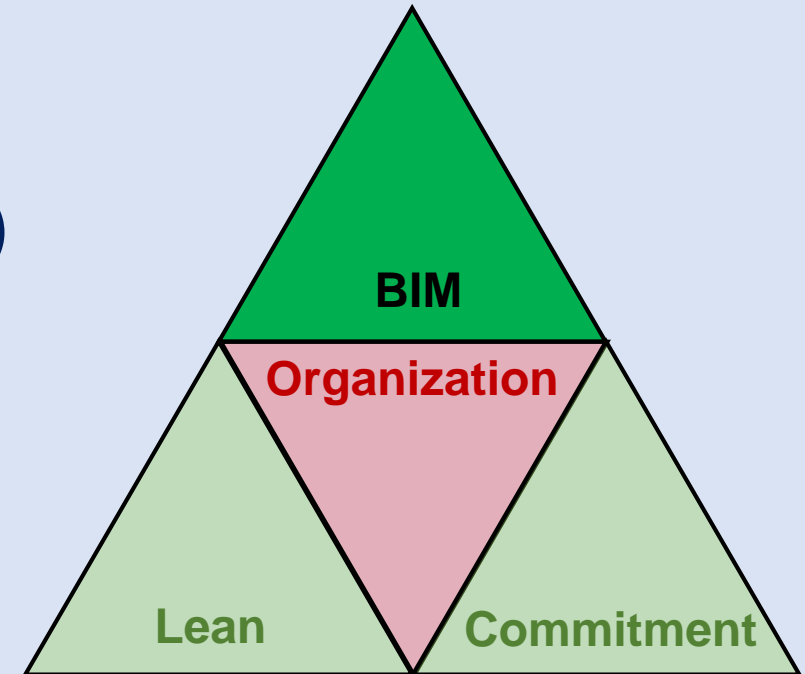
**Personal responsibility**



# HOW ?

## Clear demarcation = BIM

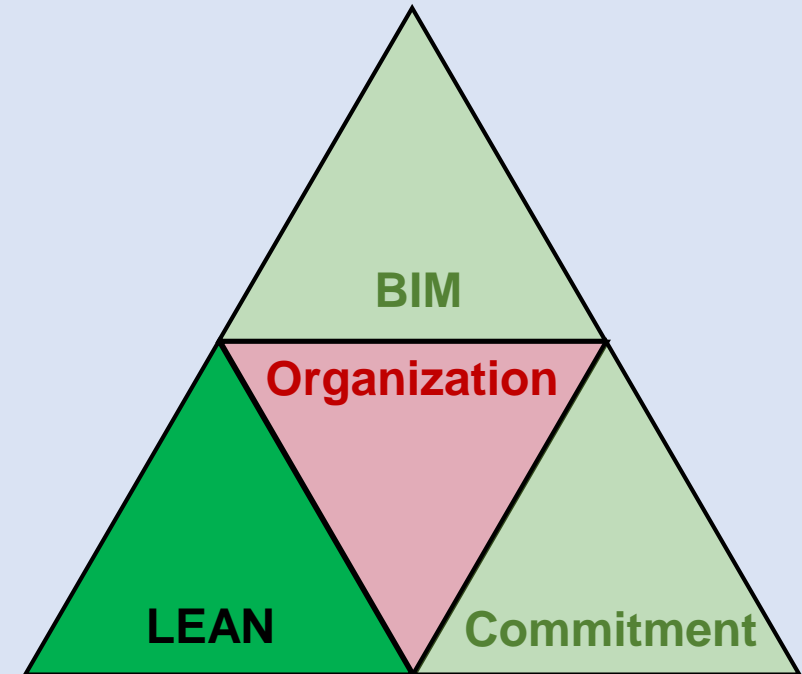
- BIM model is contract  
(no technical specification document or drawings)
- “BIM days” for information exchange
- Project engineer is BIM modeler
- Build what you BIM, and BIM what you build



# HOW ?

## LEAN in all processes

- LEAN scheduling (at start of project)
- LEAN Communication (KYP)
- LEAN engineering (BIM days)
- LEAN construction
  - Early introduction of building partners
  - Every activity after each other
  - Exclusive entrance to building site
  - Improvement by measuring time, production and “quality tickets”

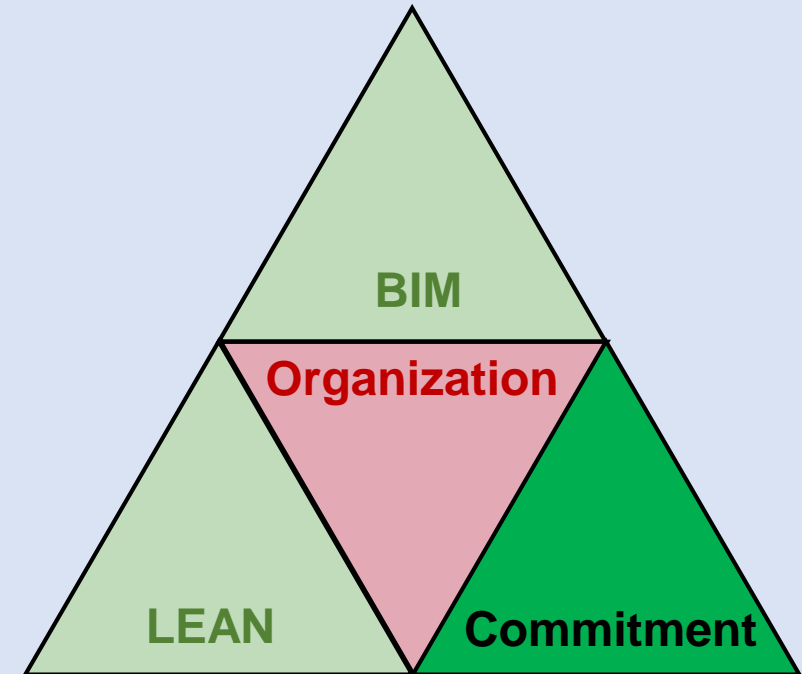


# HOW ?

- Commitment of building partners to project goals:
  - Time
  - Budget
  - Quality
- Expert building partner and committed people

**Commitment = product focus**

- Proud on their product, selected on abilities
- “Fixed” teams (no changes of persons)

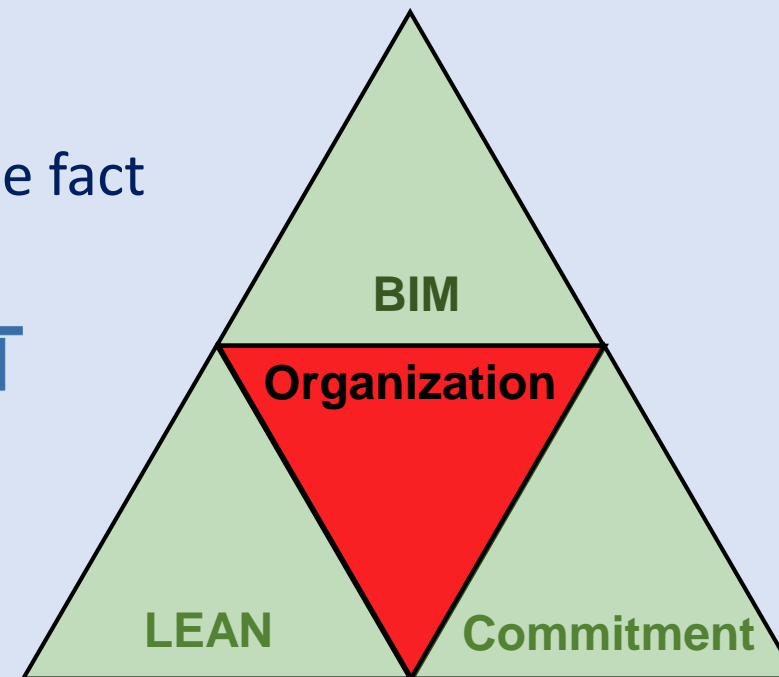


# HOW ?

- No Superintendent, focus on Quality control and progress
- Every building partners organizes its own activities and progress
- Clear contract terms
  - Client determines Right or Wrong
  - Consequences are for the party that causes the fact
- KYP communication software

**KYP PROJECT**  
PLAN ✎ VERBIND ✎ VERBETER

**Personal responsibility**



# PROJECT RESULTS

- Construction site cost: 3 %
- Unforeseen cost: 0 %
- Project failure cost: 1,5 %
  
- Construction costs 15% lower => profit + 15%
  
- Result of building partners: equal or more

# Conclusions

- Simplifying the building process leads to more margin => more innovation
- Simplifying the building process is easy through digitalization
- Increasing the level of digitalization increases the feasibility of sustainable innovations.

So.....



DARE to DIGITIZE

*ENBLOC*

KYP  PROJECT

PLAN > VERBIND > VERBETER

**BOHEMEN**

R U I M T E   I N   O N T W I K K E L I N G