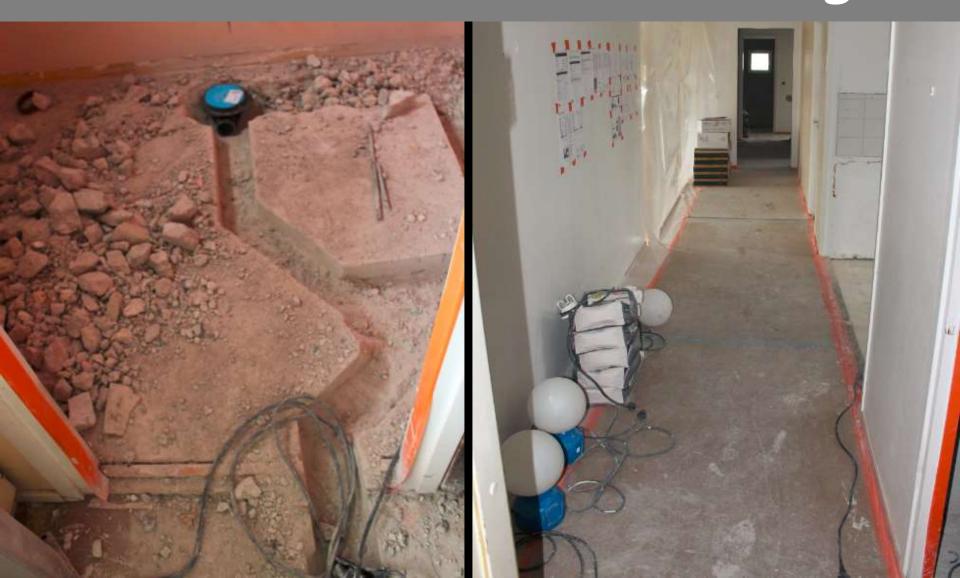


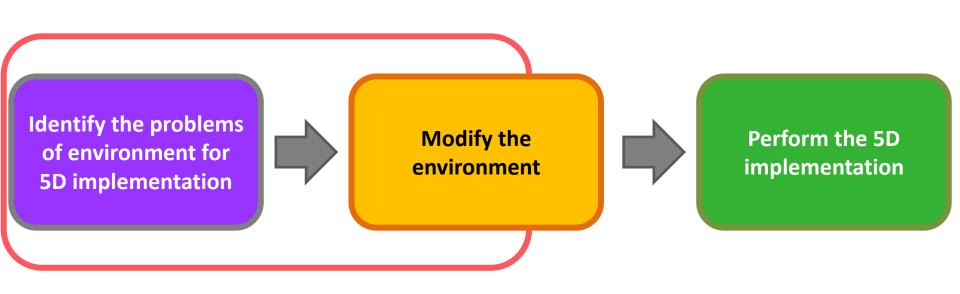
## Improving Productivity through Alliance Implementation between Contractors

M. Sc. in Technology. **H. Heikura**, Fira Palvelut Oy, Vantaa Prof. **A. Kiviniemi**, University of Liverpool, Liverpool M. Sc. in Technology. **O. Alhava**, CTO, Fira Oy, Vantaa

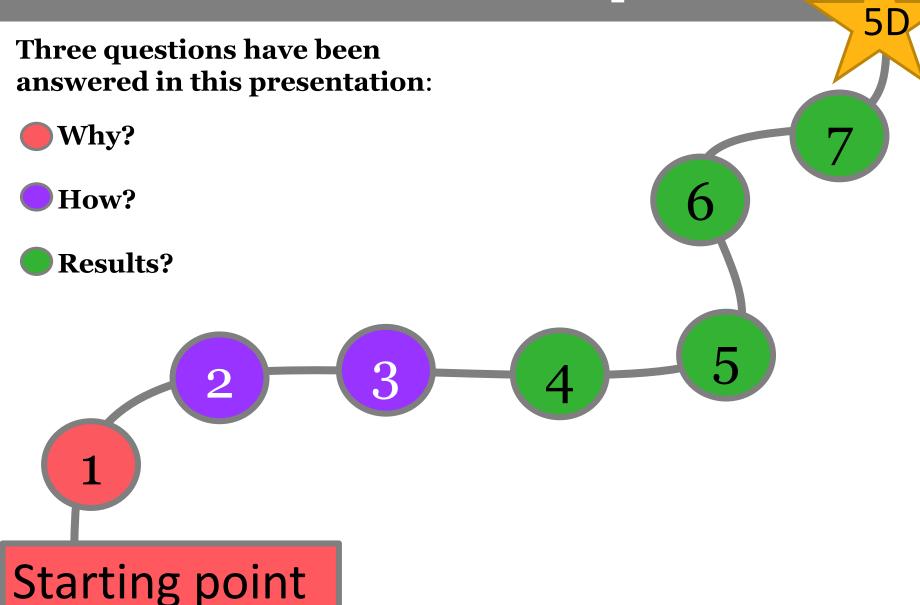
## A house department renovation = the time travel back to Middle Ages

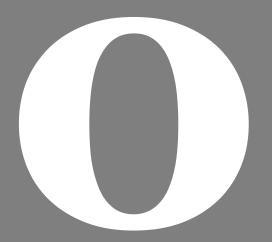


# At the field of renovating, BEFORE true 5D implementation we need to create the environment for enabling the 5D implementation



## We have a plan





## WHO ARE WE AND WHAT DO WE SUGGEST?





### Fira 2009 - 2015

Domestic service (and construction) company

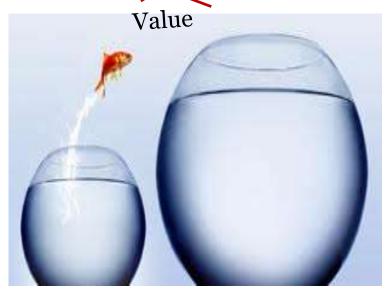


## What is our vision?

2025

FIRA 2000:

European service and construction company, revenue 1 MRD EUR







## ...with Fira, the customer and subs are in same team at same journey





## Let's begin the journey toward the environment of 5D

To develop conservative environment we have a key statement today:

PRODUCTION

# The alliance model initiates growth of productivity

## PLUS: Our statement is proved in usual environment



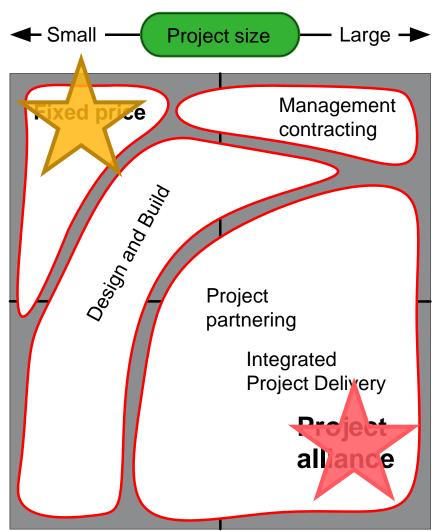
The unusual environment: the small house department renovation

More

Limitations

of project

=>
PRODUCTION
ALLIANCE



The usual environment of project alliance: the hospitals



Jani Saarinen, Vison Oy 29.8.2013

## WE BELIEVE THAT THE SILOS IN CONTRACTING NEEDS TO BE DEMOLISHED





## **HARD FACTS:**

- Construction projects are unique and not repeatable, because each unique construction is constructed in unique environment with unique organization
- Best profitability can be achieved by tendering and lowest price bidding
- Specialised companies and professional teams can provide best price as subcontractors for certain task







Manifestation on projects

Randomly chosen project

## HARD FACTS of REALITY:

1. Unique projects



2. Lowest price bidding



Short time profits, lack of commitment

zero learning curve

organisation,

3. Specialised subcontractors

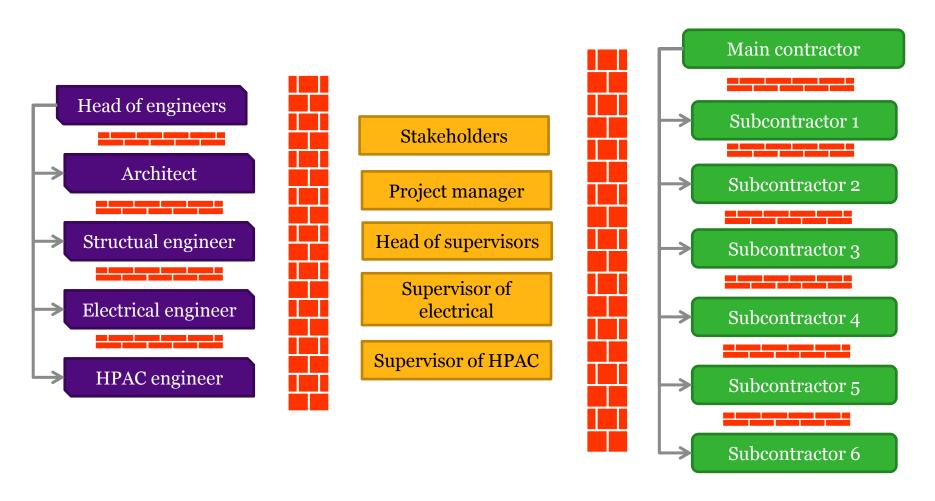


Siloed organisation, no common goal, no loyalty





### ...we are still in siloes in construction business...



Source: Will Lichtig





## ...where we have opposite interests



http://image.slidesharecdn.com/team-building-quotes-great-teamwork-weekdone-141126074034-conversion-gate02/95/15-powerful-team-building-quotes-to-inspire-successful-teamwork-3-638.jpg?cb=141719686

## As a result of low bidding syndrome, the construction industry has failed in developing the productivity





EUR in Finland.

If we would have increased productivity say 3 % per year, we would be thinking with Norwegians where to put all the money.



## WE BELIEVE THAT CONTRACTING NEEDS CONTINUITY AND MORE INTERACTION

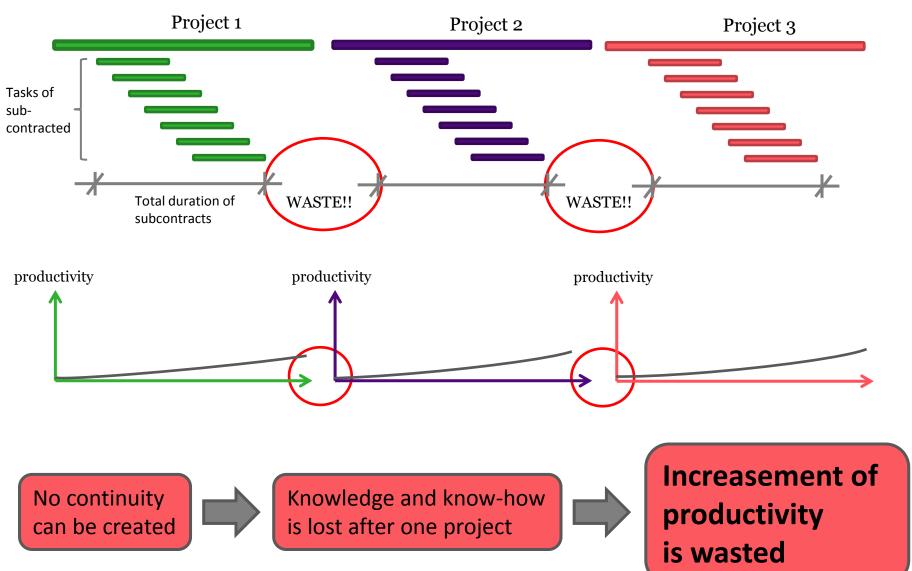


## Step 1 – Let's focus over boundaries of one project



## Main contractor is the creator of waste when scheduling projects at traditional way

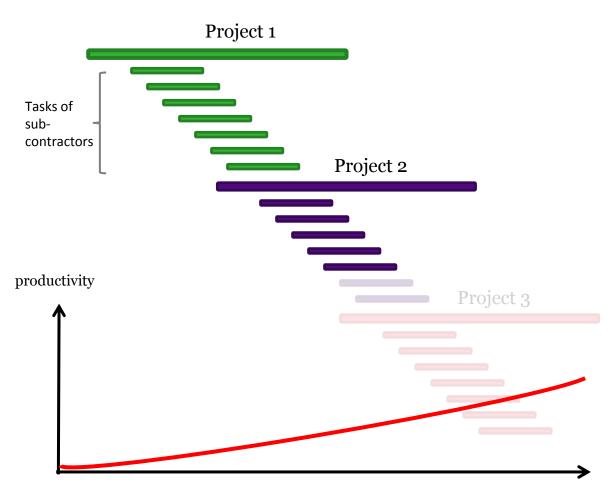






## Let's optimise the subcontractors business environment





#### **Benefits:**

- Balanced production also for subcontractors
  - ⇒ Possibility to sustain organization
  - ⇒ Possibility to gather know-how and knowledge
  - ⇒ Possibility to improve productivity

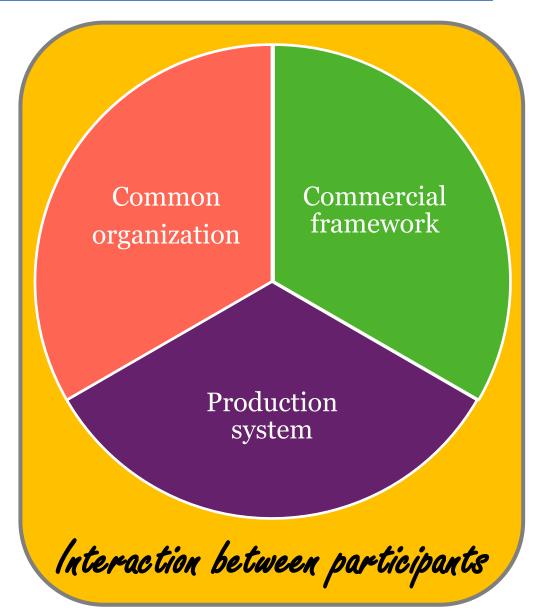


## Step 2 – Increase collaboration in a project





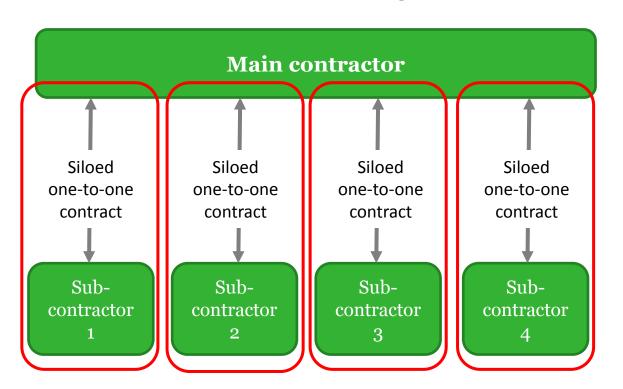
## What do we need to manage succesfully a project?

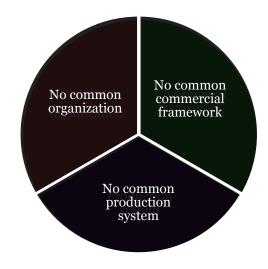






## Which are the benefits of the traditional contracting model?





## There are NO benefits.

In siloed organization no interaction between participants can not be created naturally.



# WE BELIEVE ALLIANCE IMPLEMENTATION AS A HOLISTIC CHANGE IS THE ANSWER





## What the alliance offers?

#### Team culture

- Trust
- Commitment
- Intense cooperation

## **Commercial framework**

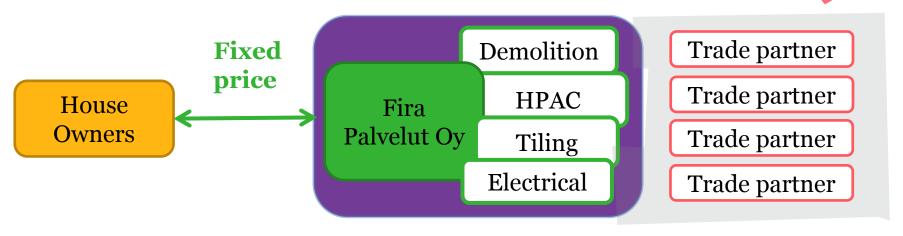
- Common contract
- Common goals
- Common pain & pain

## Lean production system

- TFV theory
- Last Planner System
- Value for Money

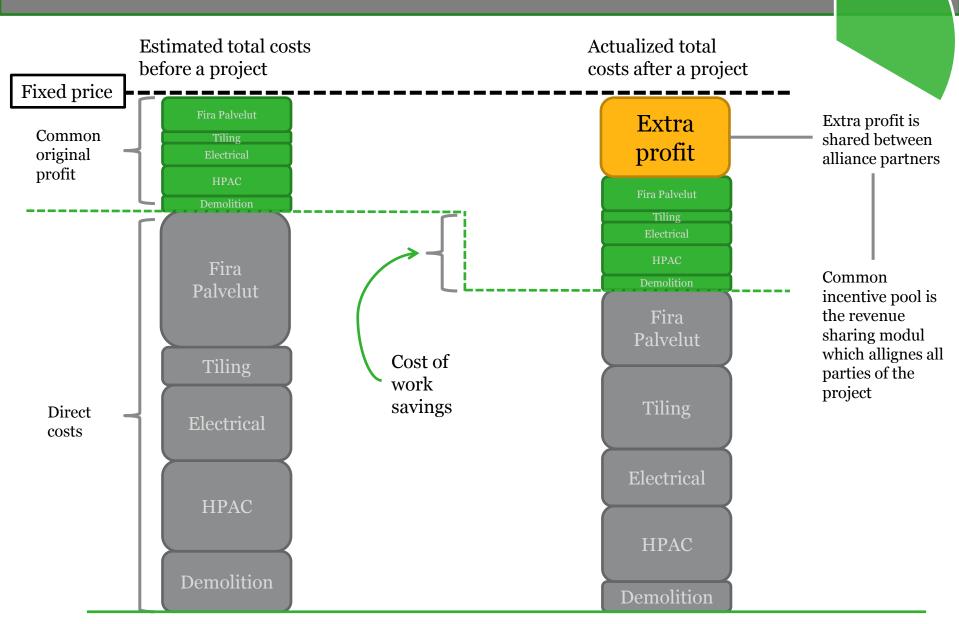
## Common organization and integrative commercial model enforce team culture

#### **PRODUCTION Alliance Contract**





## New commercial framework integrates participants via shared pain/gain



## New commercial model enables introduction of Lean methods



## Conventional vs. Alliance project

Big Room Design Master Schedule Early involment Management Value for the money Intense cooperation of Design thinking supply chain Excessive use of BIM **Built in Quality Procurement** Kaizen – Continuous Target Value Design Construction **Improvement** (TVD) Flow line Scheduling Last Planner System



# BUT CAN THE ALLIANCE IMPLEMENTATION REALLY IMPROVE PRODUCTIVITY?



## From theory to implementation



## Creation of first alliance concept 08/2014:

Our mission is to improve productivity through four cornerstones:

- 1. Excellent customer satisfaction
- 2. Development of cooperation
- 3. Innovations
- 4. Good financial outcome

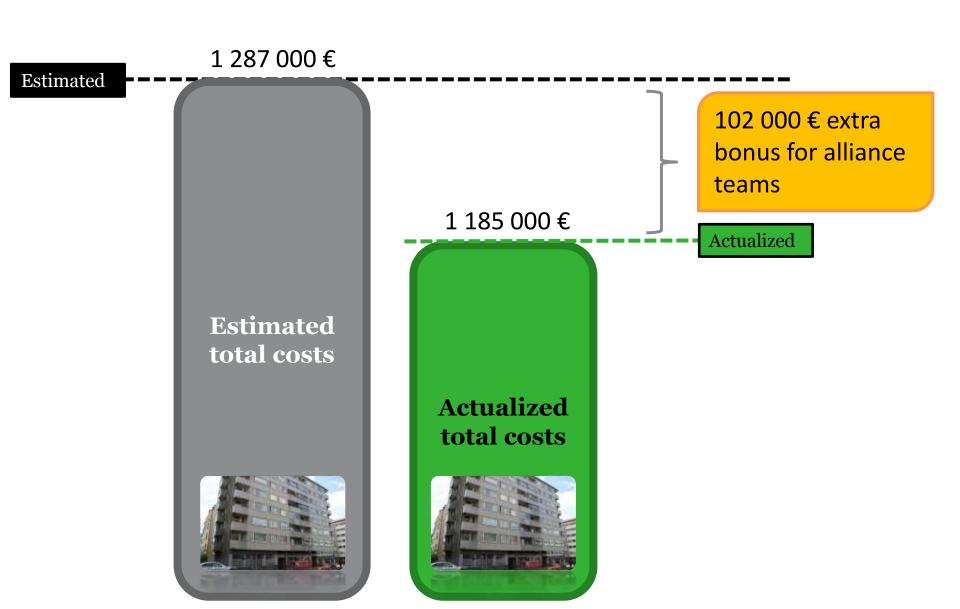
#### **Observing moment 05/2015:**

"let's observe how our first pilot projects performed **and gather the know-how and knowledge** to develop the alliance implementation better"

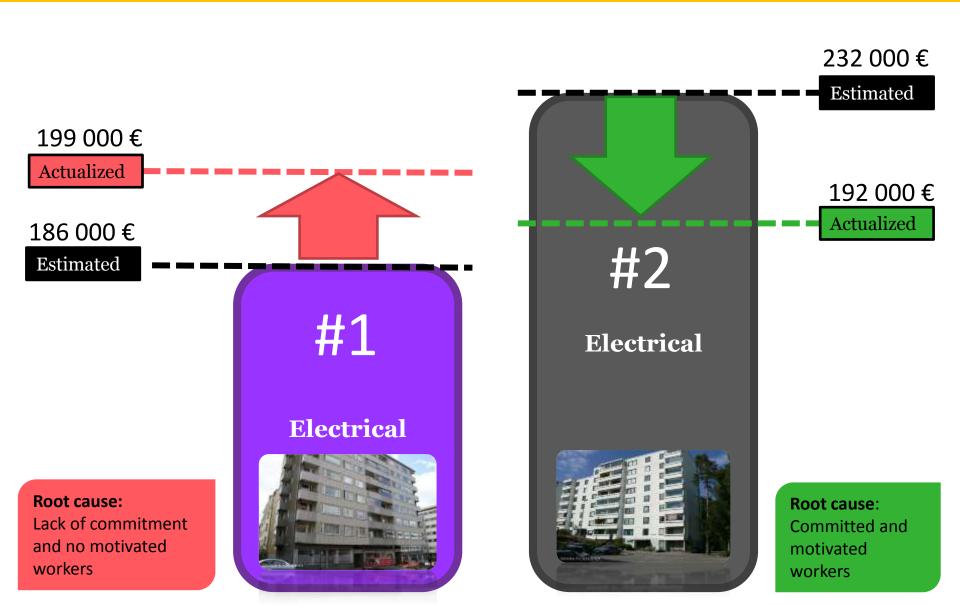
#### Starting point 01/2014:

"what if we stop project-based thinking and **create continuity** between projects with our best subcontractors?"

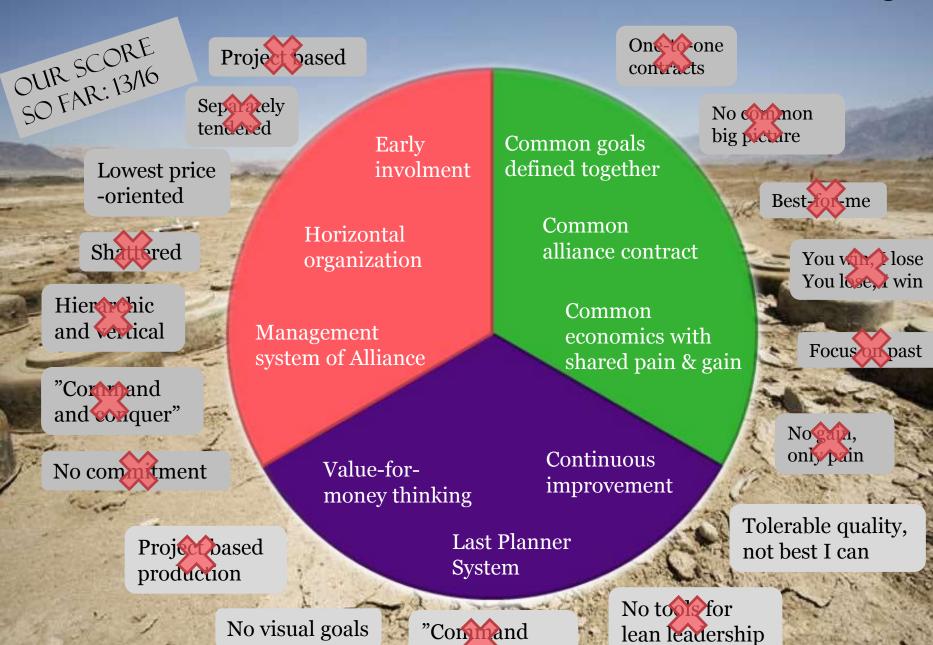
## Proof of concept!



## We have learned a lesson (or two)!



### Achievements so far at the mine field of traditional contracting



and conquer"

## CONCLUTIONS SO FAR

# Can the alliance model be implemented to unsual environment?

- renovation
- small project size
- between main contractor and subcontractors

# Does the alliance model initiate growth of productivity?

# Does the Alliance pave the way for 5D?





# WHAT NEXT? WE BELIEVE THAT THE FOCUS NEED TO BE AT CREATION OF THE TEAM CULTURE



## If we possible learing we can improve productivity



#### Creating a team culture is the key to improve productivity

- Create **continuity** over projects
- **Stable** the organization
- Create team culture where know-how and knowledge is gathered and people can learn
- **By learning** we can improve productivity

### The alliance implementation is the key for creating a team culture

- Stable organization needs common goals and commercial framework
- As a holistic relational model of contracting an alliance offers a great environment to develop the team culture

## The journey has just begun





# MOREOVER, WE BELIEVE AN ALLIANCE IS THE KEY FOR SOMETHING MUCH GREATER



## A radical change is ahead



Value

Improving productivity by increasing customer value: we will join construction to service industry

Processes of construction company

Processes of customer



Costs

## Key questions which will change the whole construction business

# Are you really creating customer value together with your customer?

**#Do you know who are your customers and how to reach them for value co-creation?** 

# Are you able to change your business model and acting accordingly?







