Slide 1

Demonstrating Excellence Through Client Engagement

Case Studies in Innovation

Professor Dennis Lenard

Elizabeth Whatmore

Don Ward

Presented by Adrian Blumenthal

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Slide 2

Opportunities for Improvement in the Global Construction sector

- Adversarial relationships/CCT
- Complacency
- NIMBYism
- Lack of Competition, Competitiveness
- Overbudget, Overtime
- Defects, lack of project control
- Little value add to the community
- Climate Change
- Skills deficit, not shortage

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Slide 3

Opportunities for Client Driven Innovation

The good news, 99% of the time someone somewhere has solved your problem, the trick is problem definition!!!

Generic Problem → Generic Solution

Specific Problem → Specific Solution

$I+BP=K$

$K+ S= Im$

$Im=$ productivity improvement

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Slide 4
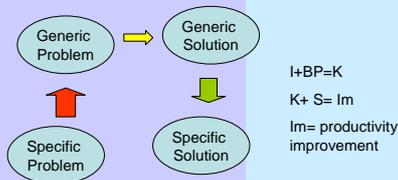
The World of Solutions

- Our Problems
  - 1% Breakthrough
  - 18% Fundamental (new industries)
  - 45% Improvement (existing industry transfer)
  - 32%Relevant (company knowledge)

  - How many of you actually look inside your company for the answer?
  - Someone somewhere has solved your problem and there are only 40 Attributes for Technical and Business solutions- Triz

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Slide 5

Communicating this innovation to others and Improvement activities in the UK construction sectors and what we do

- Constructing Excellence
- Knowledge centres
- Demonstration projects
- Business innovation clusters

share

Test

Construction Industry

learn

evaluate

Other Industries

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Slide 6
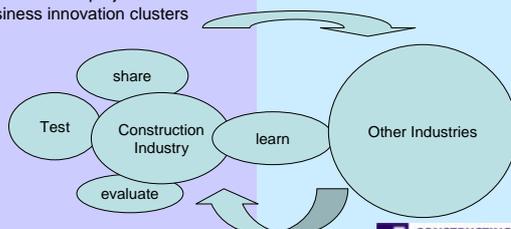
1990's Solution- Partnering

This requires changing traditional relationships to a shared culture without regard to organisational boundaries. The relationship is based upon trust, dedication to common goals, and an understanding of each other's individual expectations and values. "Expected benefits include improved efficiency and cost effectiveness, increased opportunity for innovation, and the continuous improvement of quality products and services."

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1

Slide 1

Client Driven Innovation case history one-concept

- Partnering
  - QBS
  - Target Costing Risk/Rewards
  - Risk allocation
  - Effective planning
  - Right people
  - Quality Driven a...
  - VE and VM
  - KPI's
  - Project reviews

retirement   Egan

Project reviews

KPI's

VE and VM

Effective planning

Conflict resolution

Risk allocation

QBS

conception

Industry sourced innovation= £438 million saved, £120 million extra earned, twice as safe, three times as productive

Trouble is though whilst this is a cracking start, performance plateaus after several iterations why ??

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Slide 2

Knowledge base

- A major breakthrough can be achieved by using innovation that is common place in other industries.
- Who else might have this sort of problem?
- Who would be the best at ……?
- "Steal" with Pride

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Slide 3

" Late 90's Egan Experience of other industries stolen with pride from Toyota"

Drivers for Change	Improving the Project Process	Targets for Improvement	
Committed leadership	Design Prod DEV / Procurement	Capital cost	10%
Focus on the customer		Construction time	10%
Product team integration		Predictability	+20%
Quality driven agenda	Construct Own maintain / Manufacturing in the supply chain	Defects	20%
Commitment to people		Accidents	20%
		Productivity	+10%
		Turnover & profits	+10%

Innovation (n): a new idea, method,etc, a change.

"However to achieve the above targets the measure must be across the supply chain. At best in class observed if all 10% =value add 0.001%"- PS can only be done in a partnered supply chain

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Slide 4

Client Innovation case history two Concept

- Frameworks and Lean
  - Vision and Values
  - Policy deployment
  - Value stream management
  - Continuous Improvement
  - Production Control
  - Supply development
  - Integration
  - Synchronisation
  - KM

retirement   Community wealth

Knowledge

Synchronisation

Integration

Supplier Development

Production Control

Continuous Improvement

Value stream management

Policy Deployment

Vision and Values

Lean and frameworks

conception

= 20% Saved and 20%quicker and, twice as safe, 6 times as productive Innovation as an ongoing process

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Slide 5

" Late 90's Egan Experience of other industries and improving value add

To improve the project process you need to... stand it

Design   Procurement   ...   ...

63 days   20 days   ...   384.1 days
          3 days   0.1 day   6.4 days

98% of the time the information and objects flowing through this process are non value add and are considered waste!!!!

The Concrete Value stream, information and materials went through 300 sets of hands, went through in excess of 2000 process steps of only which 25 are value add.

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Slide 6

We did; We need

- **Current paradigm**
  - 3D industry ; dirty demanding and dangerous
  - labour intensive/low skilled
  - in situ construction
  - low cost through low wage (cost perspective)
  - for domestic consumption

- **New paradigm**
  - 3 P industry: professional, progressive and productive
  - knowledge industry
  - distributed manufacturing process/ multi-skilled
  - integrated process
  - low cost through high productivity(revenue perspective)
  - generator of wealth /quality life styles

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