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Emerging Issues

The Consulting Engineering Firm Tomorrow

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How might the average Consulting Firm look like in 2020? ➔

3 questions in focus!





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Structure of the Workshop:

Building three SCENARIOS

3 questions – 3 roundtable

10 min Introduction

20 min Roundtable 1

20 min Roundtable 2

20 min Roundtable 3

10 min Summary of findings by reporters

10 min final question and answers





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1 How are markets evolving?

- What are the future challenges to be tackled?
- What is the role of Consulting Engineering firms – required areas of expertise and services?
- Are the services of today also the services of tomorrow?



1 How are markets evolving?

Drivers / Trend	Consequences for CE	Likelihood
<ul style="list-style-type: none">▪ New financing models:	<ul style="list-style-type: none">▪ Change of classical portfolio▪ procurement expertise▪ financial engineering▪ project management▪	<ul style="list-style-type: none">▪ Very probable
<ul style="list-style-type: none">▪ Large, integrated projects that only large firms can manage▪ Continued downward price pressure	<ul style="list-style-type: none">▪ Consolidation and greater roles for large firms:▪ Global firms could merge, either through expansion of existing firms into new markets or mergers▪ Some firms will leave market▪	<ul style="list-style-type: none">▪
<ul style="list-style-type: none">▪ Climate Change	<ul style="list-style-type: none">▪ Natural Resource Management Projects▪ Disaster Relief and Warning Systems▪ Prevention and Protection Technology▪ Refocusing of environmental projects	<ul style="list-style-type: none">▪



1 How are markets evolving?

Drivers / Trend	Consequences for CE	Likelihood
▪ Growing Security Needs	▪ Conflict Management Projects ▪ Security Control systems ▪ Databases etc ▪ New technical design of infrastructure	
▪ Demographic Development ▪ Aging in western world	▪ Design social systems ▪ Social sector consultancy ▪ Social policy reform ▪ New social infrastructure	
▪ Mega Cities	...	
▪ Energy Shortage	...	
▪ Information Technology		



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2. What is the role of 'Innovation' in our industry?

Most of Consulting Engineering Firms have
no structured Innovation Management or
dedicated R&D budgets



2 .The Role of Innovation for Consulting Engineering Firms

- (1) The role of "Innovation" in Service Industries has still not been sufficiently researched
- (2) A new German PWC Study shows the importance of "Innovation" in Service Industries



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Results of PWC Study (circa 1,500 firms)

- 78% think about/believe in the growing role and innovation potential in their firms in the future
- 57% have **no** clear innovation strategy
- 80% have **no** existing Innovation Management System



What are the main "drivers" in the Innovation Process ?

	Importance
→ Market pull effects (customers demands → competitors)	high
→ Management requirements	high
→ Law (statutory provisions)	medium
→ Conferences, etc.	low
→ Literature	low



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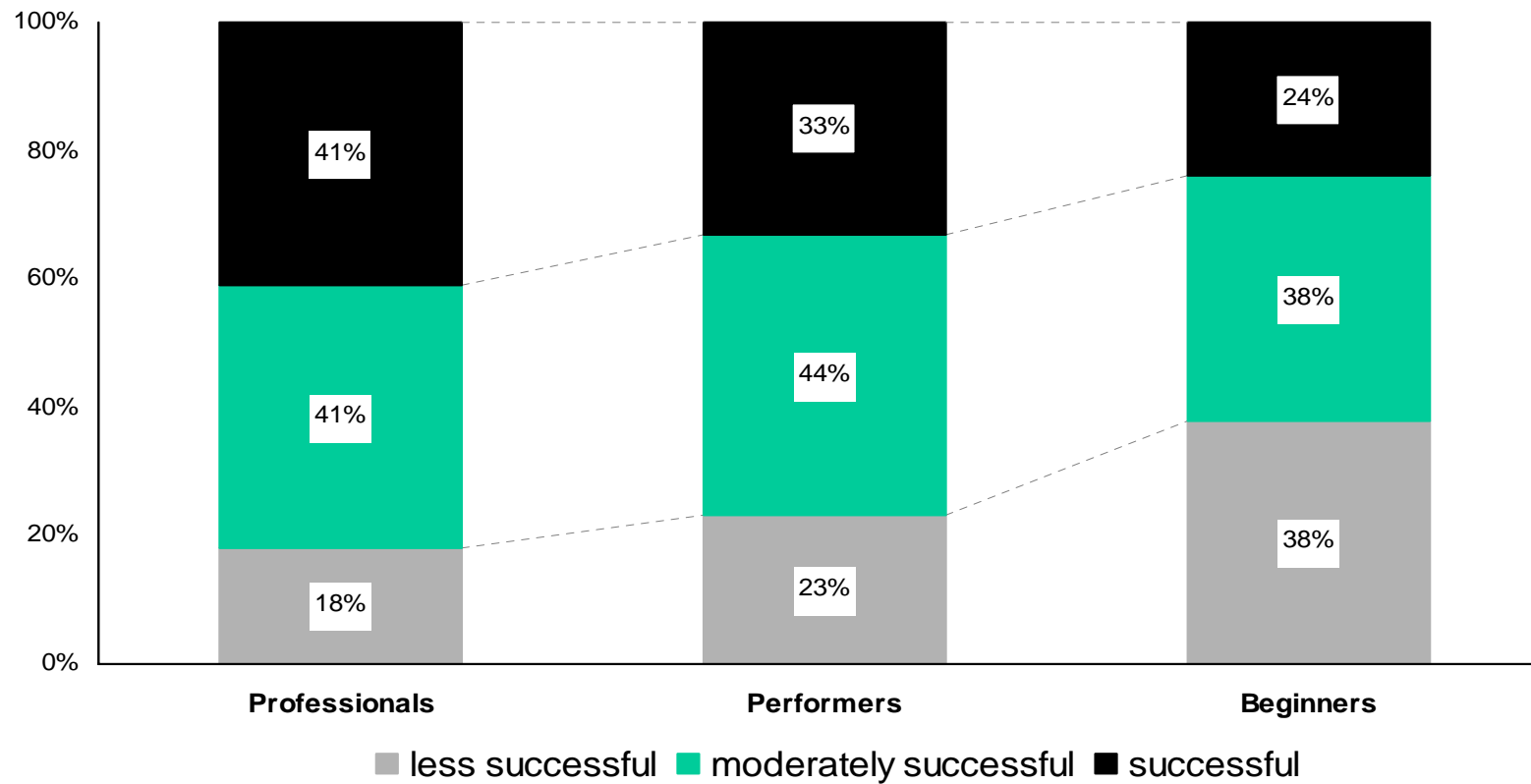


Four pillars for successful Innovation:

- ➔ Existence of an Innovation Strategy**
- ➔ Existence of an Innovation Management System**
- ➔ Existence of Corporate Innovation Culture**
- ➔ Existence of an Innovation Controlling System**



Innovation Cluster of Company Success ¹⁾



¹⁾ Turnoverprofitability, Profitability, Position against competitors



Innovation Management

Strategy

- Access to knowledge

Measures and Barriers

- cooperation with universities
- cooperation with think tanks
- ...
- ...

Importance

- Very important

- Investment
 - in human and personnel
 - in databases and systems

- Existence of Innovation Strategy
 - for products
 - for processes

- Existence of an Innovation Management



Innovation Management

Strategy

Measures and Barriers

Importance

- Existence of Corporate Innovation Culture

- Existence of an Innovation Controlling System

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3. What is the Impact of globalisation on the organisation structure of Consulting Engineering Firms?

Globalisation creates a new competitive environment in developed countries as well as in developing countries which impacts on cross-border mergers and networks



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Basic Assumptions (Projects)

- ➔ All projects are local by nature
- ➔ Local consultancy engineering based on trust
- ➔ Local laws /regulation/codes are key in understanding markets
- ➔ Big and complex projects requires large companies



Basic Assumptions (Profitability)

- ➔ **No significant relationship between profit /EBIT-rate and size of firm**
- ➔ **Cost/unit for coordination growth with size**
- ➔ **Usually better profit on home market projects than projects abroad**

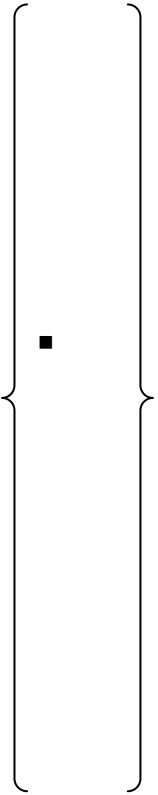


Globalisation and Organisation Structure of CE

Drivers

- more complex projects
- opening/liberalisation of markets
- same level of technical knowledge but different cost structures
- New financing needs and risk coverage
- Donor and Institution financed projects
- New Emerging markets

Organisation /Business Models



- highly specialised global acting firms
(Driver: Sector knowledge)
- specialized local firms
(Driver: Local knowledge)
- international local market oriented firms
(Driver: Size, Profitability)
- international integrated firms
(Driver: Sharing knowledge, clients, experience ...)

Ability to succeed



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Enjoy the debate !