

# FIDIC Webinar

## “Introducing FIDIC Contracts”

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## The Role of FIDIC contracts in the construction industry

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Scandinavian originated Engineering Consultant group with app 9 500 employees and with home-market business in 12 European countries and export business in 60 – 80 countries.

Providing services in architecture, engineering and environment management as Advisors, Engineers, Designers, Works Supervisors, Panellists, Inspectors to all parties along the project time-line, from early political decisions to final decommissioning.



## The Role of FIDIC contracts in the construction industry

### The next 20 minutes:

- The characteristics of the engineering / construction market and the industry, from a contracts perspective;
- FIDIC contracts in its context, pre-contract efforts recommended by FIDIC
- FIDIC Contracts and Agreements
- A few cases from reality



## Engineering / Construction market and industry

### Project's macro-characteristics:

- Lots of \$ at stake;
- Publically exposed and (sometimes) politically questioned;
- Dependant on the “unpredictable” mother-earth;
- Works (too) often procured on a lowest-price bases;
- Minimal time-line between financial close and commissioning & hand-over.

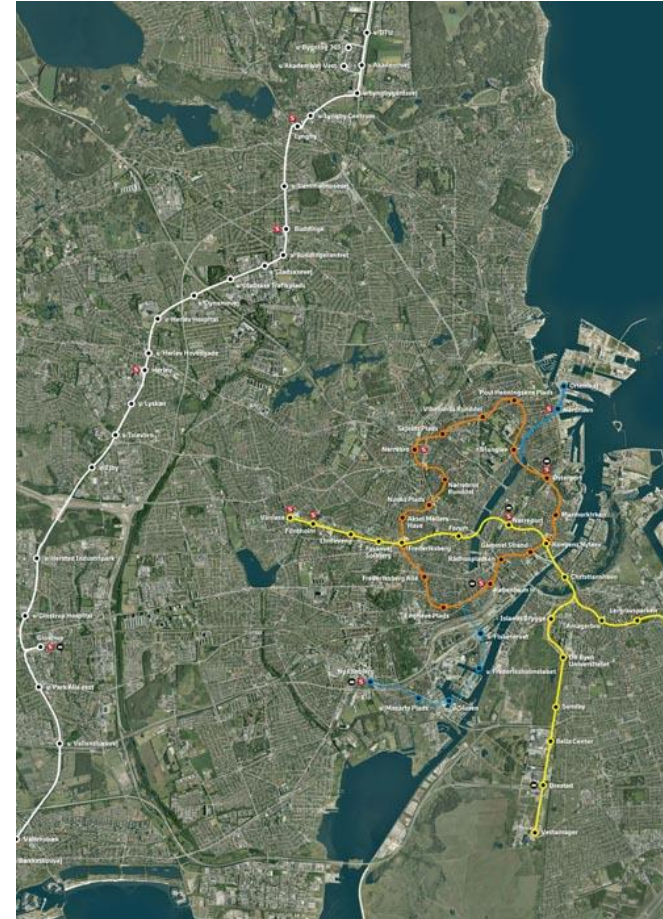


*Panama Canal 2014 Expansion. Illustration by world property journal. Estimated CtC 7 billion USD.*

## Engineering / Construction market and industry

### Project’s micro-characteristics:

- Multi-disciplinary, technically complex projects;
- Each project is a temporary enterprise;
- Parties has most likely never worked together before;
- Globalisation generates project teams with multiple nationalities and thus different ways of operating, business culture and social, environmental and ethical compasses;



*Copenhagen ring metro Project.*



## Programming of the project – set your aim

### The nature of every-day business for the industry:

- Unknown counterparts;
- Unpredictable project horizon;
- Innovative solutions;
- Fast progress;
- Attractive price tag; and
- Accurate end-result.



## Programming of the project – set your aim

However, these days, three external drivers which makes this work less troublesome

- Interest rates
- IS/IT (engineering, design, planning, communication.....)
- Recognised conditions for cooperation



*Open BIM by Scia*



## Programming of the project – set your aim

### Conditions for cooperation – for FIDIC, it starts way earlier by accurate Programming

Given all macro and micro characteristics of the project, what are the answers to all the Basic Project Considerations such as:

- Location, physical constraints;
- Legal constraints;
- Financial constraints;
- Time constraints;
- Design and construction constraints;
- Operational constraints;
- Employers abilities;
- Environmental constraints; and
- Social constraints.

And thus, what Project Strategy does this generate?



*FIDIC Procurement Procedures Guide. 2011*





## Programming of the project – set your aim

### Project Strategy

- How to finance? (Public, Private, PPP,)
- How to structure your Works / Services packages?
- Fast track or normal speed?
- Employers role and influence?
- How to allocate risk?
- What payment methods?
- How to procure?
- How to implement?

The answers to this should form a solid base for which delivery methods and contract forms to use.



## Choice of delivery methods – type of contract

Use the appropriate Delivery Methods:



Model agreements for professional services:

- Client/Consultant
- Joint Venture
- Sub-Consultant
- Representative

Form of contract for works:

- Construction and Sub-Contractor
- Construction (MDB)
- Plant, Design & Build
- Turn Key (EPC)
- Dredging
- \*Underground works

Form of contract for works and operations:

- Design, Build & Operate (DBO)
- \*Operate, Design and Build (ODB)



## Advantages with FIDIC contract & agreement forms

### CLEAR, COHERENT

Essential clauses.  
Detailed definitions.  
Consistent structure.

### FAIR, EQUITABLE

Risk allocated to party best placed to control it, bear it, and deal with it.

### THIRD PARTY

Drafted by consulting engineers who design and manage projects.

### COMPLETE, FLEXIBLE

Range covers most needs.  
Readily adaptable to fit requirements.

### RECOGNISED

Positive FIDIC image.  
World-wide acceptance



## Advantages with FIDIC contract & agreement forms

### In addition, you get

- 50 year track record by development funded projects – bi- and multi-lateral, amongst others;
- Reduced risk for corruption – balanced, well understood and recognised;
- International standard, efficient implementation, less risk for disputes;
- Private & public sector support;
- Extensive training options;
- Backed up by FIDIC best business practices such as Risk, Integrity, Sustainability, Capacity Building



## Choice of Contract is crucial for project success

### A sample-recommendation

An Turn Key (EPC) delivery method is not suitable for use if:

- There is insufficient time or information for tenderers to scrutinise and check the Employer's Requirements or for them to carry out their designs, risk assessment studies and estimating;
- Construction will involve substantial work underground or work in other areas which tenderers cannot inspect;
- The Employer intends to supervise closely or control the Contractor's work, or to review most of the construction drawings; or
- The amount of each interim payments is to be determined by an official or other intermediary.



## Choice of Contract is crucial for project success

### A few discouraging examples

The main characteristics of this case-project were:

- Design and Construction of a mega-sized green field project over 4 years;
- First ever commercial application of the core process technology;
- Significant and crucial public permits needed, adaption to national regulation crucial;
- The project represents a crucial, hazardous risk to society if implemented incorrectly;

Yet, the project was procured an EPC delivery method with Lump Sum payment method.

Claims and counter claims at app 100 % of contract price. Arbitration since 2008. Current completion forecast 7 years late and 300 % over budget.



## Choice of Contract is crucial for project success

### A few discouraging examples

The main characteristics of this case-project were:

- An 8.7 km long tunnel in unknown, but very challenging, geological conditions. Planned time for completion, 5.5 years;
- Procured on an EPC Lump sum contract bases with very poor tests and studies of ground conditions;
- 1<sup>st</sup> EPC contractor bankrupt after 4 years due to sever progress problems and engineering difficulties. Released from the contract against an LD penalty of 60 % of the initial contract value;
- 2<sup>nd</sup> EPC contractor suspended year 6 by environmental authorities due to work-methods in breach against national env. legislations. Eventually terminated;
- 3rd contractor procured on a quantity based compensation model with new tunnel drive method.

Project completion planned for 23 years after commencement at a final cost at 1 100 % over budget.



## FIDIC Contracts and Agreements for successful projects

### A final (personal) recommendation

The choice of delivery method and payment method should not only be based on market (demand/supply) conditions, but more importantly based on the characteristics of your project.

Your tools for success are available at [www.fidic.org](http://www.fidic.org)

