

# FIDIC Conditions of Contract Training

## Session 1 Introduction

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## The Training Outline (Sessions)

1. Introduction
2. FIDIC Red Book [Conditions of Contract for Construction] (1999), Part 1
3. FIDIC Red Book (1999), Part 2
4. FIDIC Red Book (1999), Part 3
5. FIDIC Yellow Book (1999)
6. FIDIC Silver Book (1999) and FIDIC MDB (2010)
7. Case Studies
8. Guest Lecture by Dr Harald Wagner (Risk Management)
9. Presentation by World Bank Procurement Specialist
10. Consultation and Discussion



# 1. Introduction to FIDIC



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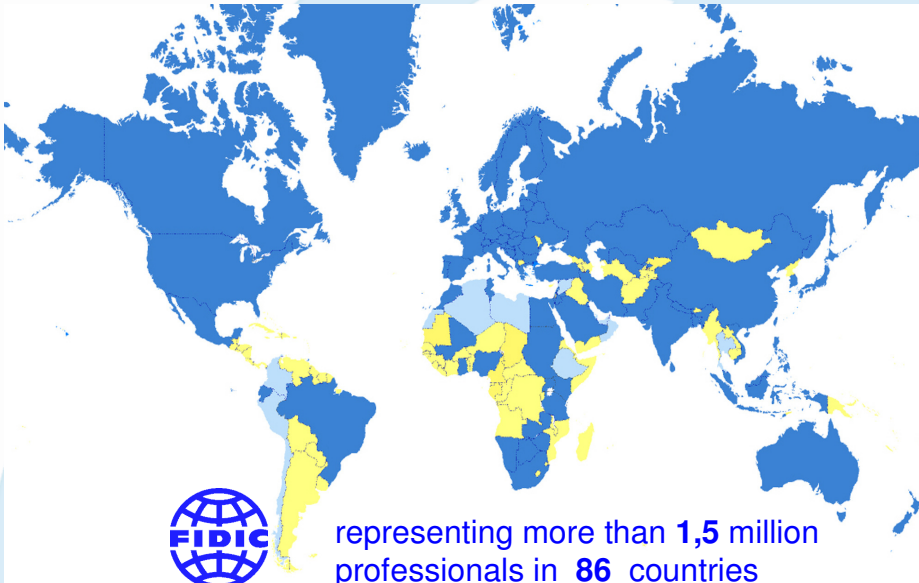
Fédération Internationale des  
Ingénieurs - Conseils



International Federation of Consulting  
Engineers



# Member Associations



## Member Associations

### AFRICA

Algeria, Botswana, Cameroun, Congo, Egypt, Ethiopia, Ghana, Guinea, Kenya, Lesotho, Lybia, Malawi, Mali, Mauritania, Mauritius, Morocco, Namibia, Nigeria, Senegal, South Africa, Sudan, Swaziland Tanzania, Tunisia, Uganda, Zambia, Zimbabwe

### AMERICAS

Argentina, Barbados, Bolivia, Brazil, Canada, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Honduras, Mexico, Netherlands Antilles, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, United States, Venezuela

### ASIA-PACIFIC

Australia, Bangladesh, Brunei, Bahrain, China (PRC, Taiwan, Hong Kong), India, Indonesia, Iran, Japan, Korea, Malaysia, Mongolia, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Saudi Arabia, Singapore, Sri Lanka, Thailand, Vietnam

### EUROPE

Albania, Austria, Azerbaijan, Belarus, Belgium, Bosnia, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Uzbekistan



#### Quality services

Value for the client  
Cost efficiency  
Impartiality

#### High standards

Performance  
Know how  
Integrity

#### Best practice

##### Standard contract documents

Policies and guidelines  
Fair allocation of risks and responsibilities

#### Selection by ability

Quality of proposals  
Skills and experience  
Fair remuneration

#### Sustainability

Long-term perspective  
Respect for the environment  
Project-level focus

#### Capacity building

International co-operation  
Training and transfer of know-how  
Manuals

## Principles



**Annual conferences**

Provide a meeting place for clients, contractors and consultants involved in development

**International agencies**

Keep the consulting engineering industry's concerns on the agenda  
Strategic partnerships

**Liasion**

Maintain communication between members, committees and other organizations

**Publications**

Establish best practice procedures  
Publish **Contracts** for the infrastructure industry

**Training**

Capacity building for the consulting industry in both developed and developing economies

**www.FIDIC.org**

Distribute updated information and services to members and society

**Activities**



**CONTRACTS**

Draft standard international **CONTRACTS** between **EMPLOYER** and **CONTRACTOR**

**BUSINESS PRACTICE**

Prepare publications on:  
BEST practice  
RISK management  
LIABILITY  
INTEGRITY management  
QUALITY management  
SUSTAINABLE development

Draft model **AGREEMENTS** between **CLIENT** and **CONSULTANT** or between Consultants

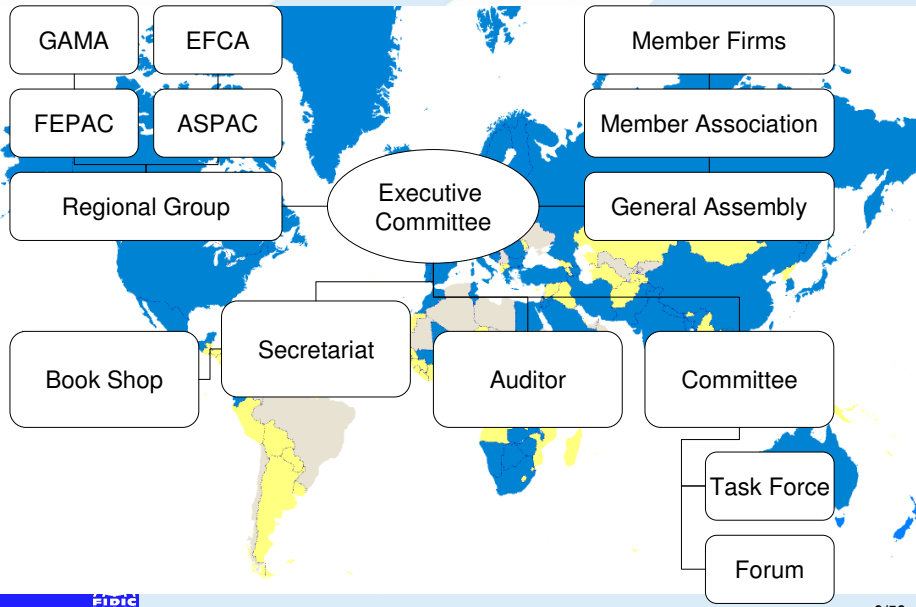
**CAPACITY BUILDING**

Prepare training materials based on the **GUIDE TO PRACTICE** and organise training events

**TASK FORCES**

Analyse current issues  
Liaise with organisations  
Help manage FIDIC affairs

**Committees**



## 2. Background to FIDIC Contracts

The very **FIRST FIDIC Conditions of Contract:**

*“Conditions of Contract (International) for Works of Civil Engineering Construction” (Red Book)*

**First edition published in 1957** and was prepared on behalf of FIDIC and the Federation Internationale du Batiment et des Travaux Publiques



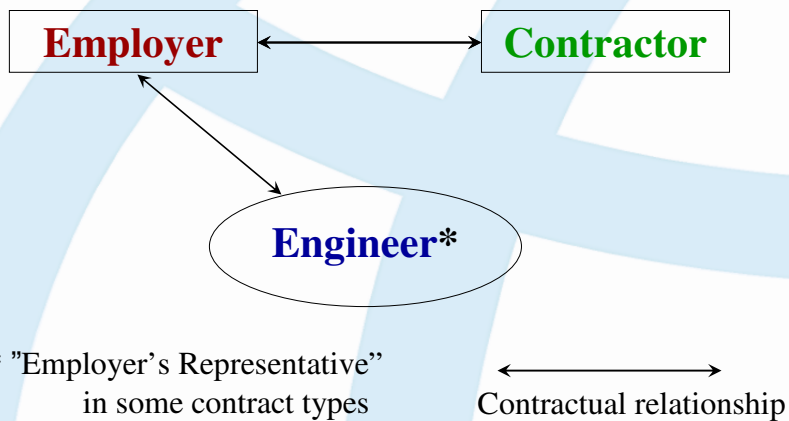
## 2. Background to FIDIC Contracts

### FIDIC Conditions of Contracts TODAY



## 2. Background to FIDIC Contracts

### The Stakeholders in a typical FIDIC Contract



## 2. Background to FIDIC Contracts

- ▶ Both the **Red** and **Yellow** had new editions in 1987
- ▶ **Red Book 4<sup>th</sup> Edition 1987** introduced an express term which required the **Engineer to act impartially** when giving a decision or taking any action which might affect the rights and obligations of the parties. Greater concentration on the **allocation of risk**, and with the **significant addition of a ground for extension of time**
- ▶ The 1987 **Red Book** was **reprinted** in 1992 modifications so the 4th Edition is known as the 1992 **Red Book**



## 2. Background to FIDIC Contracts

- ▶ **Red Book 4<sup>th</sup> Edition Supplement** published in 1996 with alternative arrangements comprising an option for a **Dispute Adjudication Board**, and an option for payment on a **lump sum** basis instead of reference to bills of quantities
- ▶ **Conditions of Contract for Design-Build and Turnkey (1995 Orange Book)**



## 2. Background to FIDIC Contracts

- ▶ **1995 Orange Book**: a significant move away from the traditional role of the Engineer ( “Employer’s Representative”). The Employer’s Representative is expected to “*determine the matter fairly, reasonably and in accordance with the Contract*”
- ▶ New dispute resolution tool:  
**Dispute Adjudication Board (DAB)**



## 2. Background to FIDIC Contracts

- ▶ Updates of **Red, Yellow and Orange** published in **1999** as **Construction, Plant and Design-Build and EPC/Turnkey Contracts**

### Aims:

- standardise the terminology;
- make the documents as user-friendly as possible;
- solve the problem of the Engineer not seen as acting impartially while he was employed and paid by the Employer.



### 3. Harmonisation based on the type of project

- ▶ Before 1999 the Red and Yellow Books were **drafted quite differently**, even when dealing with subject-matters that should be common to both ← **Shortcomings!**
- ▶ **Red Book**: civil works; **Yellow Book** E & M works.  
The 1999 editions divided as to **responsibility for design**, irrespective of the type of work
- ▶ Under the 1999 **Construction Contract**, the Contractor is paid on a **measure and value** basis for constructing works **designed by others**; and under the 1999 **Plant Contract**, the Contractor is paid on a **lump-sum** basis for providing works to his **own design**



### 4. Features of the 1999 editions

- ▶ Harmonisation of terms and clauses
- ▶ Wide application: common law / civil law
- ▶ Wide applicability under various project delivery and contracting systems
- ▶ More specific provisions regarding the obligations of the parties and their rights
- ▶ Improved management procedures
- ▶ Tackle the problem of late payment
- ▶ Role of the engineer updated
- ▶ Dispute resolution made more effective



## 4. Features of the 1999 editions

### Red Book

Building and engineering works;

Designed by (or on behalf of) the Employer

The Contract is administered by the Engineer, appointed by the Employer.

Disputes are referred to the Dispute Adjudication Board

### Yellow Book

Electrical and/or mechanical plant and building and engineering works;

Designed by (or on behalf of) the Contractor

The Contract is administered by the Engineer, appointed by the Employer.

Disputes are referred to the Dispute Adjudication Board

### Silver Book

Process or power plant, a factory or similar facility, or an infrastructure project;

Contractor takes total responsibility for the design and execution

The Contract is administered by the Employer

Disputes are referred to the Dispute Adjudication Board



## 4. Features of the 1999 editions

### Red Book

Contractor to complete the Works in accordance with the Contract and the Engineer's instructions

Interim and final payments are certified by the Engineer, (determined by measurement of the actual quantities of the works and applying the rates and prices in the Bill of Quantities or other Schedules )

### Yellow Book

Contractor provides plant, and designs (except as specified) and executes the other works, all in accordance with the Contract, which includes his Proposal and the Employer's Requirements

Interim and final payments are certified by the Engineer, typically determined by reference to a Schedule of Payments

### Silver Book

Contractor provides plant, and designs and executes the other works, ready for operation in accordance with the Contract, which includes his Tender and the Employer's Requirements

Interim and final payments are made without any certification: typically determined by reference to a Schedule of Payments



## 5. Structure of the 1999 FIDIC contracts

Each includes:

1. **General Conditions**
2. **Guidance** for the Preparation of the **Particular Conditions**
3. Letter of Tender, Contract Agreement and Dispute Adjudication Agreements

**General Conditions** used unchanged. **Changes** to suit an Employer's own requirements **are illegal** and in breach of copyright. Include the **Appendix to Tender**, which gives essential project information. All project- and country-specific changes in **Particular Conditions**



## 5. Structure of the 1999 FIDIC contracts

- ▶ General Conditions comprise **20 Clauses**, covering similar subject matter in all three contracts, except:

### **Construction:**

Cl. 3 The Engineer; Cl. 5 Nominated Subcontractors;  
Cl. 12 Measurement and Evaluation

### **Plant:**

Cl. 3 The Engineer; Cl. 5 Design;  
Cl. 12 Tests after Completion

### **EPCT:**

Cl. 3 The Employer's Administration, Cl. 5 Design;  
Cl. 12 Tests after Completion



## 5. Structure of the 1999 FIDIC contracts

- ▶ Similar defined words and phrases are used in all 1999 editions, the main exception being descriptions of the documents in the Contract:

**Construction**: Contract Agreement, Letter of Acceptance, Letter of Tender, Conditions of Contract, Specification, Drawings, Schedules

**Plant**: Contract Agreement, Letter of Acceptance, Letter of Tender, Conditions of Contract, Employer's Requirements, Schedules, Contractor's Proposal

**EPCT**: Contract Agreement, Conditions of Contract, Employer's Requirements, Tender



## 5. Structure of the 1999 FIDIC contracts

### Essential Documents to form part of a FIDIC Contract

- ▶ **General Conditions (of Contract)**  
(This is always the relevant part of the FIDIC book chosen)
- ▶ **Particular Conditions (of Contract)**  
(Includes modifications and supplements to the GC as necessary due to the legislation of the Country and as a result of the Project)
- ▶ **Appendix to Tender**  
(A list of most important data in the Contract)
- ▶ **Technical Documents of the Contract**  
(Designs, Bills of Quantities, Technical Specifications, Employer's Requirements etc.)



## 5. Structure of the 1999 FIDIC contracts

### The main clauses:

- ▶ General: CI 1
- ▶ The Parties & the Engineer: CI 2 – 4
- ▶ Subcontracting, staff, labour, materials, workmanship, quality (testing): CI 5 – 7
- ▶ Time: CI 8
- ▶ Testing, taking-over, defects liability: CI 9 - 11
- ▶ Measurements, variations and payment: CI 12 – 14
- ▶ Termination: CI 15 and 16
- ▶ Risks, Insurance and Force Majeure: CI 17 – 19
- ▶ Claims and disputes: CI 20



## 6. Forms

- ▶ In the **Construction** and **Plant** Contracts, the **Appendix to Tender** provides a convenient check-list of all the essential data required for the various sub-clauses.  
**Example texts for six forms of securities:** *Parent Company Guarantee; Tender Security; Performance Security; Advance Payment Guarantee; Retention Money Guarantee; Payment Guarantee by Employer*
- ▶ **Dispute Adjudication Agreements** (one member; three member) are short, because they reference **General Conditions of Dispute Adjudication Agreement** appended to the General Conditions



## 7. Differences between 1999 Construction & 1992 Red

**New terms and definitions**, including:

- 1.1.1.6 Schedules
- 1.1.2.4 Engineer (replaces the **Orange Book**'s Employer's Representative)
- 1.13.1 Base Date
- 1.1.3.6 Tests after Completion
- 1.1.3.7 Defects Notification Period
- 1.1.4.1 Accepted Contract Amount
- 1.1.4.3 Cost ("all expenditure reasonably incurred")
- 1.1.5.2 Goods (includes the Contractor's Equipment, Materials, Plant, and Temporary Works)
- 1.1.6.8 Unforeseeable (it became defined)



## 7. Differences between 1999 Construction & 1992 Red

- 1.12: Contractor to disclose **confidential details**
- 2: **Obligations and responsibilities of the Employer** clearly set out
- 2.4: Risk of inadequate **Employer's financial arrangements** recognised.
- 2.5: Procedures for **Employer's claims** against the Contractor
- 3.1 and 3.5: **Engineer is deemed to act for the Employer** unless stated to the contrary, **but** if required to agree or determine a matter **must consult with the parties** in an attempt to reach agreement, and failing agreement, **make a fair determination**. (**1992 Red Book**, the Engineer was required to **exercise his discretion** under the contract **impartially** within the terms of the contract)



## 7. Differences between 1999 Construction & 1992 Red

- 3.2: **Engineer's Representative** replaced by any number of assistants, who may include a resident engineer
- 3.4: Employer now entitled to **replace the Engineer**
- 4.1: **Works** must under the Construction Contract be **fit for the purpose** that they were intended, as stated in the contract
- 4.9: **Quality Assurance** has been introduced
- 4.20: Employer to provide **Equipment and free-issue materials** (if any) for the use of the Contractor
- 4.21: Contractor is required to submit detailed **monthly progress reports**



## 7. Differences between 1999 Construction & 1992 Red

- 8.4: **Delay causes** entitling the Contractor to an extension of time, have **changed**. Delay caused by the Employer's other contractors on the site and unforeseeable shortages in the availability of personnel or Goods caused by epidemic or government actions have been added. **Other special circumstances that may occur** have been **omitted**
- 11.3: Employer entitled to **extend the Defects Notification Period** for up to two years if it cannot be used for the purposes for which it was intended by reason of a defect or damage
- 4.2 and 11.9: Employer is required to return the Performance Security within 21 days of receiving a copy of the Performance Certificate



## 7. Differences between 1999 Construction & 1992 Red

13.2: **Value Engineering** introduced

13.7: Adjustment of the Contract Price to take account of any increase or decrease in cost (as defined) resulting from a **change in law** extended to include changes in the judicial or official governmental **interpretation of laws** made after the base date

13.8: A formula for calculating **adjustments for changes in Cost** (Only if adjustment data is given in the Appendix to Tender!)

14: For **late payment**, the Contractor is entitled to be reimbursed for **financing charges**

14.7: **Interim payment** must be made **within 56 days** after the Engineer receives the Contractor's statement



## 7. Differences between 1999 Construction & 1992 Red

15.5: Employer can **terminate** at any time **for his convenience** by giving notice, with two provisions (not so that he can complete the Works himself; not so he can arrange the Works to be completed by another Contractor)

16.1: Contractor entitled, to **suspend or reduce the rate of work** where the Engineer fails to certify an interim payment certificate or the Employer fails to provide information about the Employer's financial arrangement or to make payment

17.3 Risks now include **terrorism**

17.7: New **limitation of liability** clause is introduced

18: Insurance provisions leave **insurance** to be discussed and **agreed** before date of the letter of acceptance



## 7. Differences between 1999 Construction & 1992 Red

- 19: Provision for **Force Majeure**, and the **relief**, is defined
- 20: In making a determination for a Contractor's claim for adverse **unforeseen physical conditions**, the Engineer can review whether other physical conditions encountered were **more favourable** than could reasonably have been expected at the tender stage
- 20.1: After receiving a claim or any further particulars supporting a previous claim, the **Engineer required to "respond with approval, or with disapproval and detailed comments"**
- 20.1: Strict **time bar** is imposed **for claims** by the Contractor
- 20.2-20.4: referral to a **DAB** as for 1992 Red Book, but DAB no longer an 'acceptable alternative' but has replaced Engineer



## 8. User Friendliness before 1999

- 1977 Red Book:** "Clauses of **universal application** have been grouped together and are referred to as **Part I**", and there were no payment terms in Part I. **Numerical data** was to be contained in an **Appendix to Tender**, but **other data** (including payment provisions, law and language) was to be included in a **Part II**.
- 1980 Yellow Book:** clauses of **universal application in Part I**; and **numerical data** in an **Appendix to Tender**. **Other data in Part II**, and brief guidance for its preparation included
- 1992 Red Book:** same as 1977 Red Book
- 1987 Yellow Book:** **more detailed Part I**, and introduced a **Preamble** for insertion of essential data in lieu of an Appendix to Tender. The data which was to be included to the relevant Part I where needed



## 8. User Friendliness in the 1999 Editions

- a) *Most of the important contract provisions are incorporated in the General Conditions*
- b) *Amend data in Particular Conditions*
- c) *Common definitions*
- d) *Identical wording*
- e) *Entrust drafting to personnel with the relevant expertise*
- f) *Letter of Acceptance: Construction and Plant Contracts only provide for the possibility that no Letter of Acceptance is issued*
- g) *Checklist: Construction and Plant Contracts have check-list for the insertion of all essential data*



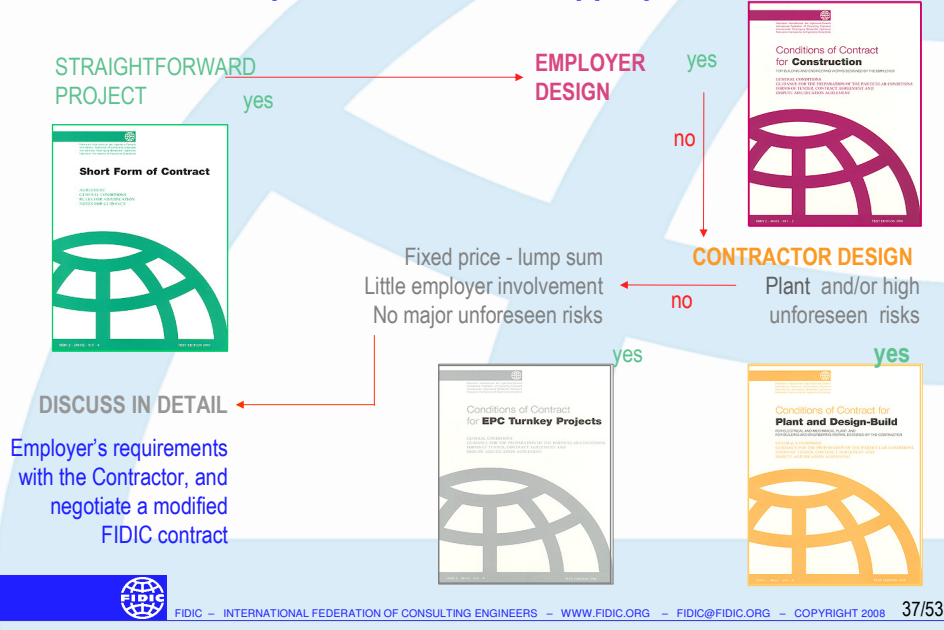
## 9. Contract Preparation: How to choose the most suitable conditions of contract?

### Questions to analyse and answer:

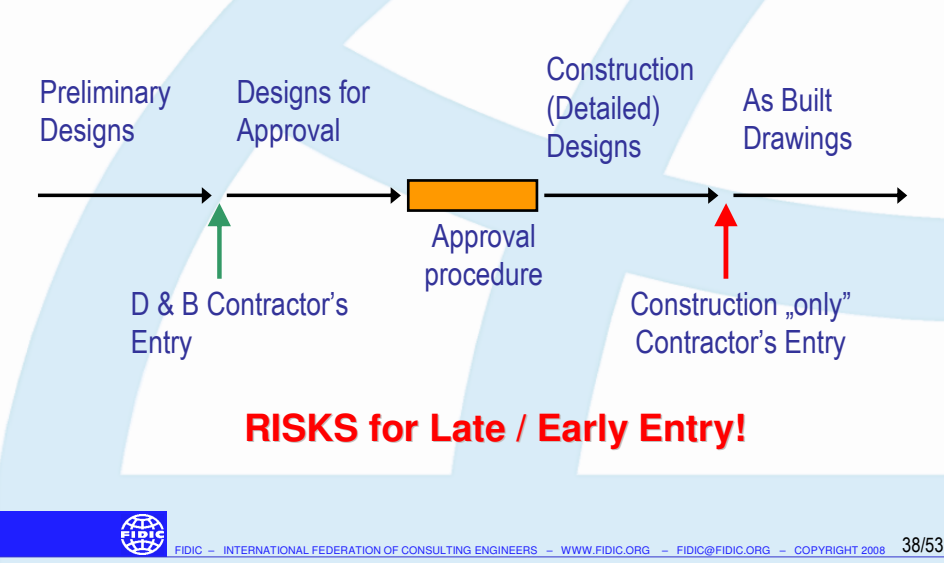
- ▶ Subject / type of the contract (construction only, design-manufacture-installation, design only etc.)?
- ▶ Type of risk sharing (Contractor to construct only OR he is involved also in the design)?
- ▶ How the contract / project is intended to be managed?
- ▶ What will be the type / method of payment?



## 9. Contract Preparation: Choice of appropriate form



## 9. Contract Preparation: How to choose the most suitable conditions of contract?



## 9. Contract Preparation: Conditions of Contract

- ▶ FIDIC conditions do not just give the rights and obligations of the Parties, but also include **project management procedures** essential for the administration of the project
- ▶ The (General) conditions **shall be completed**. Certain items of information must be provided in other documents: Appendix to Tender, Particular Conditions and Specifications
- ▶ Information must be **co-ordinated** with the other documents in order to ensure that the contract, as a whole, will serve its intended purpose



## 9. Contract Preparation: Conditions of Contract

- ▶ Employer and Tenderer insert information in the **Appendix to Tender**
- ▶ **General Conditions** may be modified for project circumstances and requirements by **Particular Conditions**
- ▶ **Check the sub-clauses** that refer to a) information in the Specification / Employer's requirements and b) information that may be included elsewhere in the Contract
- ▶ **Modify standard Contract Agreement** to suit the Employer's requirements
- ▶ Decide for a one-person or three-person **DAB** and whether to nominate potential members



## 9. Contract Preparation: Conditions of Contract

- ▶ Consider the **use of Annexes A to G for the forms of securities** that are referred to in the General Conditions and the Appendix to Tender (may need to be modified to suit the Employer's requirements and the applicable law)
- ▶ Consider the **use of a standard Letter of Tender** for use by tenderers when submitting their Tender.  
The information given in the conditions of contract must be included



## 10. Risks in the 1999 Editions

- ▶ Risk allocation in the 1999 editions has moved slightly in the Contractor's favour
  - Definition of **force majeure** has broadened
  - Contractor recovers **time and money** for force majeure (**exceptions!**)
  - Increased power of the Contractor in relation to the **Employer's ability to pay** and actual payment (See S-CI 2.4, 14.8, 16.1, 16.2 etc.)



## 10. Risk allocation

- ▶ Key issues concerning risk that should be checked by the Parties:
  - Employers' risks
  - Contractors' risks
  - Shared risks



## 10. Risks: Should the Contractor bear them all?

- ▶ If risks allocated to the Contractor become excessively high, the following may occur:
  - Higher tender price
  - Failure of the tender and disruption of project implementation
  - Non-participation in the tender of conscientious and capable contractors
  - Contract award to a tenderer incapable of estimating risks
  - Poor construction quality and delay to the progress of the work
  - Undermining the relationship of mutual trust
  - A number of groundless claims from the Contractor
  - Frequent disputes
  - In an extreme case, termination of the contract



## 10. Risks - works contract and service agreement discrepancies

The main participants in a FIDIC contract are:

<u>Employer</u>	Service agreement between Employer and Engineer (FIDIC White Book)
<u>Engineer</u>	Engineer to administer works contract on behalf of Employer
<u>Contractor</u>	(E.g. FIDIC 1999 Red / Yellow Book)
<u>DAB</u>	Agreement between Employer / Contractor and 1 or 3 Members of DAB



## 10. Risks - works contract and service agreement discrepancies

Engineer must:

- Review the **works contract** in regard to the Engineer's responsibilities and obligations to identify any **contradictions** with his **service agreement**
- **Recommend** to the Employer that contradictions be removed (by amendment of the service agreement or by incorporation of limitations of the Engineer's authority)
- **Inform the Employer** in writing with recommendations as to how the contradictions could be resolved



## 11. Risks - Which contract to use: Risk sharing

- ▶ A promoter of a project should carefully analyse:
  - Allocation of the **essential functions** found in a construction project and in particular the **design function**
  - Allocation of the **risks inherent** in the project
  - Allocation of the **management role**
  - **Method and timing of payment** to the contractor
- ▶ *Applicable Law* **allocates most of the risks** envisaged in the contract to the contracting parties
- ▶ *Contract* either **affirms** the allocation **or re-allocates risks** from one to the other contracting party or spreads them to third parties



## 11. Risks - Which contract to use: Risk sharing\*

- ▶ If a risk is not allocated to one of the contracting parties either by the applicable law or by the terms of the contract then courts will ask the following questions:
  - Which party can best **foresee** the risk?
  - Which party can best **control** the risk?
  - Which party can best **bear** the risk?
  - Which party most **benefits or suffers** if the risk eventuates?
- ▶ It is foolish to allocate a risk to a party who cannot bear the risk unless that party is able to shift the risk to others who can. This shift or spread is usually done through insurance



\* by Abrahamson & Nael G. Bunni

## 11. Risks - Which contract to use: Risk sharing

- ▶ For construction projects, bear in mind:
  - **Meaning and significance** of “risk”
  - **Not all** undesirable events can be perceived and identified
  - In certain circumstances **desirable** as well as **undesirable consequences** may occur



## 11. Risks - Which contract to use: Risk sharing

- ▶ **Project risks** are divided into:
  - **Mainly insurable risks** (risks of loss, damage or injury occurring during the contract, including: consequences of accidents due to defective design, defective material and defective workmanship; acts of God; fire; human error; failure to take adequate precautions)
  - **Mainly not insurable risks** (risks leading to financial and/or time loss with their impact on the project, including: late possession of the site; delay in receipt of necessary information; changes in design; variations in the original contract.)



## 11. Risks - Which contract to use: Risk sharing

- ▶ The promoter when allocating the functions and risks to various parties shall consider management and the method of **valuing the work** done and **how the work is paid**. He should consider whether or not he is prepared to **share these risks** with the other parties and if so the extent of such sharing
- ▶ In broad terms, **three categories** to be considered:
  - **Cost-reimbursable** contracts
  - **Re-measurement** contracts based on unit rates & prices
  - **Lump sum** contracts



## 11. Risks - Which contract to use: project type

- A. *Relatively small value, short construction time or involving simple or repetitive work: **Short Form***
- B. *Larger or more complex projects*
  - B1. Employer (or the Engineer) to do most of the design - **Construction Contract**
  - B2. Contractor to do most of the design – **Plant & DB**
  - B3. PFI project or BOT or similar type where a Concessionaire takes total responsibility for the financing, construction and operation – **EPCT** (for the implementation !)
- C. *Also for **EPCT***
  - C1. Where the Employer wishes to implement the project on a fixed-price **turnkey** basis - **EPCT**



**END of Session 1**

**Thank you for your kind attention!**

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