



**Apmācību seminārs**  
**"Inženierkonsultantu pakalpojumu  
iepirkumu organizēšana un FIDIC līgumi"**  
ID Nr. EM 2022/59  
Rīga, 2022



**Training seminar / Apmācību seminārs**  
**"Inženierkonsultantu pakalpojumu iepirkumu  
organizēšana un FIDIC līgumi"**  
**The best practice for procurement of consulting  
engineers services and FIDIC contract forms**  
**October 25th, 2022, Riga**  
**Jaap de Koning, Rob Rijnen (Netherlands)**

## Introduction



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## Setup

Expectations?  
Questions?



## Agenda

<b>09:30 – 10:00</b>	<b>Registration</b>
<b>10:00 – 11:10</b>	<ul style="list-style-type: none"><li>• Introduction</li><li>• Best practice of applying MEAT criteria for selection offers of consulting engineers (what happening if the cheapest price is the only criteria, what is the best practice, why it's beneficial to the Client)</li><li>• QA session ( Jaap de Koning )</li></ul>
<b>11:10 – 11:40</b>	<b>Coffee break</b>
<b>11:40 – 12:50</b>	<ul style="list-style-type: none"><li>• Practical examples of applying MEAT criteria for selection of consulting engineers; experience of large Dutch Institution, how to design a set of MEAT-criteria</li><li>• QA session ( Jaap de Koning, Joost Fijneman )</li></ul>
<b>12:50 – 13:50</b>	<b>Lunch break</b>
<b>13:50 – 15:00</b>	<ul style="list-style-type: none"><li>• Introduction of FIDIC contract forms (why FIDIC books are popular, What is the difference between several books (White book, Red, Yellow, Green book, Golden principles)</li><li>• QA session ( Rob Rijnen )</li></ul>
<b>15:00 – 15:20</b>	<b>Coffee break</b>
<b>15:20 – 16:30</b>	<ul style="list-style-type: none"><li>• Practical application of FIDIC White book and other books (how to use FIDIC contract forms, how to prepare contracts, what the Client should do, what to expect from the tenderer)</li><li>• QA session ( Rob Rijnen )</li></ul>

## Part I / 10:00 – 11:10

- Background and history of MEAT
- What is MEAT?
- How to asses MEAT?
- Examples of Quality criteria
- Dutch experience
- Why MEAT?
- QA session



## Background; EFCA

- European Federation of Engineering Consulting Associations;
- 25 branche-organisations;
- Representing FIDIC in Europe;
- Based in Brussels;
- Industry employs about 1 million staff;
- Industry generates more than EUR 150 billion annual turnover .

## The origin of MEAT

### Official Journal

L 94

of the European Union



English edition

Legislation

Volume 57  
28 March 2014

Contents

*I Legislative acts*

page

DIRECTIVES

- |  |     |
|--|-----|
| * Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts (1)  | 1   |
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| * Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC (1) | 243 |

## 2014 European Directives

- 2020 goals:
  - Europe 2020 strategy for smart, sustainable and inclusive growth
  - Need for innovation
  - Need for sustainable development
- Issues:
  - Intellectual services
  - MEAT
  - Competitive procedure with negotiation
  - Innovation Partnership
  - Life Cycle Costing (LCC)

## EU policy

Procurement is the key to change!



## FIDIC 2017

Report FIDIC 2017 on the use of Award Criteria:

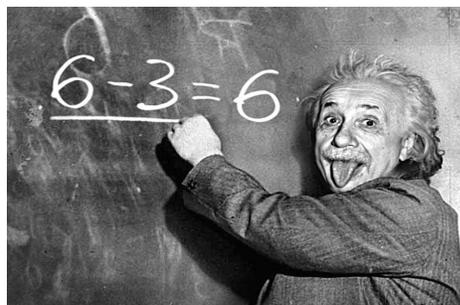
- 40% only price;
- Awareness of the consequences by only using price;
- More eager to use MEAT;
- But: how?

EFCA Guideline on using MEAT, a 5-step model to derive good award criteria (part II)

## What is MEAT?

Most Economically Advantageous Tender  
Award Criterium

'more than just price'  
(almost) a science...



## What is MEAT?

- Price and quality; how to compare / combine these in one assesment?
- Two systems:
  1. in points;
  2. in Euro's (monetarisation).

## Assessment of MEAT; in points

Award on criteria. minimal score=0 , maximum score = 5.					
Nr.	Criteria	Weight	A	B	C
1	Price	50,0	3,90	4,45	5,00
	total price	million €	6,250	5,685	5,125
2	Quality	20,0	4,68	3,61	1,59
3	Project control	15,0	3,39	4,86	2,78
4	Maintenance	10,0	4,26	3,58	1,24
5	Planning (construction)	5,0	5,00	1,00	3,00
		100,0	4,07	4,09	3,51

## Assessment of MEAT; monetarisation

### Rekenvoorbeeld beoordelingssystematiek

Onderstaand rekenvoorbeeld is enkel bedoeld om de systematiek van het bepalen van de fictieve inschrijvingsprijs (de economisch meest voordelige inschrijving) inzichtelijk te maken. Uit onderstaand rekenvoorbeeld wordt duidelijk dat Inschrijver B de economisch meest voordelige inschrijving heeft gedaan.

Subcriteria/ aspecten	Max.score	Max.waarde	Inschrijver A		Inschrijver B		Inschrijver C	
			Score	Waarde	Score	Waarde	Score	Waarde
A1	5	€ 37.500	3,5	€ 26.250	2,0	€ 15.000	1,0	€ 7.500
B1	15	€ 112.500	14,0	€ 105.000	10,0	€ 75.000	6,0	€ 45.000
B2	10	€ 75.000	8,0	€ 60.000	8,0	€ 60.000	5,0	€ 37.500
B3	10	€ 75.000	8,0	€ 60.000	5,0	€ 37.500	5,0	€ 37.500
B4	15	€ 112.500	15,0	€ 112.500	11,5	€ 86.250	4,0	€ 30.000
C1	10	€ 75.000	7,5	€ 56.250	8,0	€ 60.000	2,5	€ 18.750
C2	20	€ 150.000	18,0	€ 135.000	14,5	€ 108.750	5,0	€ 37.500
D1	15	€ 112.500	7,0	€ 52.500	8,0	€ 60.000	8,5	€ 63.750
Toegevoegde waarde		(K)	81,0	€ 607.500	67,0	€ 502.500	37,0	€ 277.500
Inschrijvingsbedrag (lumpsum)		(P1)		€ 695.000		€ 550.000		€ 399.000
Fictieve inschrijvingsprijs		(P1-K)		€ 87.500		€ 47.500		€ 121.500

## Assessment of MEAT: example

Criteria	Fictious discount	range scores:							
B1 (20%)	€ 600.000,00			0	no added value				
B2 (30%)	€ 900.000,00			1	very limited extra value				
B3 (20%)	€ 600.000,00			2	limited extra value				
totaal	€ 2.100.000,00			3	average extra value				
				4	substantial added value				
				5	very much added value				
<b>Total scores</b>									
Offer in Euro's	score B1	score B2	score B3	korting B1	korting B2	korting B3	totale korting	fictieve inschrijfsom	
Bidder A	€ 1.900.000,00	4	3	2	€ 480.000,00	€ 540.000,00	€ 240.000,00	€ 1.260.000,00	€ 640.000,00
Bidder B	€ 2.150.000,00	2	4	3	€ 240.000,00	€ 720.000,00	€ 360.000,00	€ 1.320.000,00	€ 830.000,00
Bidder C	€ 2.200.000,00	3	4	3	€ 360.000,00	€ 720.000,00	€ 360.000,00	€ 1.440.000,00	€ 760.000,00

## Quality Criteria

### 1. Limiting nuisance for project environment

Criterion K1 relates to the nuisance to the project environment. The replacement of the road construction, measures at the intersections, and the replacement of the culvert bridge entail nuisance to the project environment. The province appreciates a working method for the Contractor that limits nuisance for the project environment. The Tenderer must provide a description/Plan of Approach that includes a clarification of how nuisance for the project environment will be limited. It should address the relationship between the duration of nuisance and the degree of nuisance to the project environment (short duration, heavy nuisance versus long duration, limited nuisance).

This description may not exceed eight A4 pages (including attachments, excluding planning).

## Quality criteria

### 2. Limiting traffic nuisance to (road) users of the N500

Criterion K2 relates to the inconvenience for road users of the N500. The replacement of the road construction, the measures at the intersections and the replacement of the culvert bridge lead to traffic disruption for the road users of the N500. The province appreciates a working method of the Contractor that limits traffic nuisance. The Tenderer must provide a description / Plan of Approach that explains how traffic nuisance for road users of the N500 will be restricted. It should address the relationship between the duration of the traffic disruption and the degree of traffic disruption for road users of the N500 (short duration, heavy traffic nuisance versus long duration, limited traffic disruption).

This description may not exceed eight A4 pages (including attachments, excluding planning).

## Quality criteria

### 3. Risk reduction for the client

Criterion K3 relates to the extent in which the Tenderer is 'in control' with respect to the management of the client's principal risks, other than risks described under K1 and K2. The Client wishes to reduce risks and consequential damages and limit responsibilities. In this respect, the Client considers it important that the Contractor flexibly handles setbacks in the process that are their fault and that the Contractor thinks ahead instead of, for example, passively acting and reacting. The Tenderer must submit a risk reduction plan that clarifies which control measures the Tenderer applies and identifies residual risks. The Tenderer must at least include an assessment and identification of five major client's risks in his

## Pay attention!

- How to asses;
- Assessment team
- Two envelop system

## Why MEAT?

1. It's in the European Directives;
2. More value for your money;
3. No more race to the bottom;
4. It drives creativity and innovation;
5. It's about content.



## When to apply MEAT?

Question: what are the characteristics of MEAT?

## When to apply MEAT?

Intellectual services;  
Complex projects;  
Of some size.



## Dutch Experience

- April 2013: New Dutch Procurement Law
- Main principle: "comply or explain"
- Award criteria: MEAT
- Part II, more about the success of MEAT

Q&A



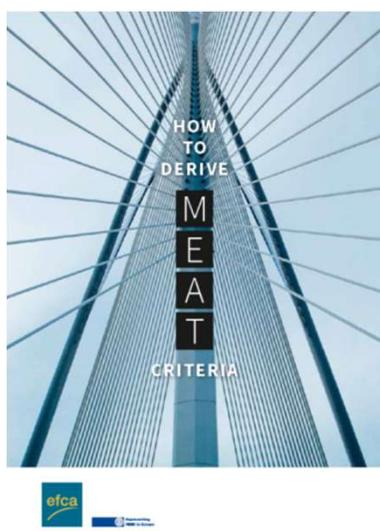
Coffee break / 11:10 - 11:40



## Agenda/ 11:40 – 12:50

- Contribution of Joost Fijneman (CROW);
- How to make a good set of MEAT Criteria;
- Example
- Q&A

## Guidance on MEAT



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## Step 1

### 1. What are the project goals?

- Not the product;
- Think of theme's relating to project- or procesmanagement;
- Two type of goals; execution (proces) or content.

Examples:

- Reduction of hindrance;
- Energy neutral;
- Deliverance on a milestone.

## Step 2

### 2. Derive possible quality criteria

Guidance: 8 fields of criteria (45 examples):

- Functionality;
- Availability;
- Aesthetics;
- Sustainability (of the product);
- Sustainability (of the process);
- Lifecycle costs;
- Risk management;
- Environment.

## Step 2

### Important!

- Contract / projectrelated;
- Information must be verifiable;
- Enough information for the bidders;
- Innovation is not a criteria.

## Step 3

### 3. Choose a maximum of 4 criteria

Why 4?

- Statistics (distinction);
- Tender costs for bidders.

## Step 4

### 4. Attribute weight to the criteria

How?

- Ratio price/quality criteria;
- Rank quality criteria to their importance.

Important: Price should be between 20 and 40/50%

## Step 5.

### 5. Perform a crash test

- Fill in possible offers;
- Low price, low quality / high price, high quality
- If needed: change the parameters.

Advantage: feeling of the costs of quality, if you use  
monitarisation.

## Example Lock Halfweg



## Lock Halfweg



## Lock Halfweg

### Step 1: projectgoals

Characteristics:

- Monumental status;
- Subsidy maximized;
- How to get there?
- How to execute?
- How to reduce hindrance?

## Lock Halfweg

### Step 1: projectgoals

Execution:

- With minimal risk for the monument;
- In a financial controlled way;
- In an efficient way;
- With minimal hindrance.

## Step 2

### 2. Derive possible quality criteria

1. Cost control;
2. Execution plan;
3. Minimal hindrance;
4. Sustainable execution;
5. Corporation in the (ECI) team;
6. Keep the monument intouched;
7. Planning controlled.

## Step 3

### 3. Choose a maximum of 4 criteria

3 chosen:

- Cost control in the team;
- Corporation in the team;
- Risk control (decease of construction, obstacles in subsoil);

## Step 4

### 4. Attribute weight to the criteria

Discussion:

- Cost control (15%)
- Corporation in the team (20%)
- Risk control (15%)

And price will be 50%

## Step 5.

### 5. Perform a crash test

- No changes in the score or the weight.

Q&A



Lunch break / 12:50 - 13:50



## Introduction and practical application of FIDIC Contracts



## Introduction and practical application of FIDIC Contracts

### Collaboration in aviation industry



## Introduction and practical application of FIDIC Contracts

### Collaboration in health care



## Introduction and practical application of FIDIC Contracts

### Collaboration in Formula 1



## Introduction and practical application of FIDIC Contracts

### Collaboration in nature



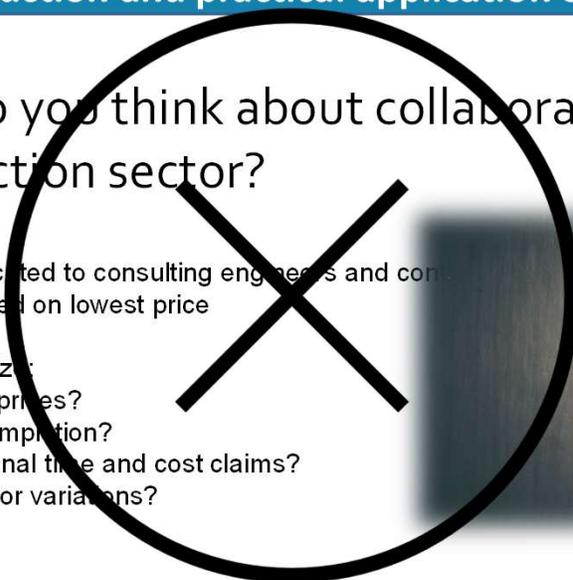
## Introduction and practical application of FIDIC Contracts

### What do you think about collaboration in the construction sector?

- All risks allocated to consulting engineers and contractors
- Tenders based on lowest price

Do you recognize:

- High tender prices?
- Delays to completion?
- Many additional time and cost claims?
- High prices for variations?



## Introduction and practical application of FIDIC Contracts

Rob Rijnen MSc.



**NEN-ISO 10845**  
Construction procurement



Witteveen + Bos

## Introduction and practical application of FIDIC Contracts



Introduction of FIDIC contract documents

## Introduction of FIDIC Contracts

### Checking the myths

Do the following myths circulate(?):

- *"A FIDIC White-/Rainbow suite book can be used directly for every construction project."*
- *"Conditions of contract can be prepared by lawyers only."*
- *"You have to buy a new FIDIC book for every new project."*
- *"FIDIC contracts are complicated."*
- *"The contract clauses from White-/Rainbow suite books must be incorporated in the tender documents."*

## Introduction of FIDIC Contracts

### Short quiz about FIDIC

## Introduction of FIDIC Contracts

### What does FIDIC mean?

1. Federation Internationale Des Ingenieurs Conceils?
2. International Federation of Consulting Engineers?

## Introduction of FIDIC Contracts

### Why should you use FIDIC?

1. International standard?
2. Balanced approach to roles and responsibilities?
3. Balanced allocation and management of risks?
4. Globally recognised and used?
5. Developed over 50 years?

## Introduction of FIDIC Contracts

### Does FIDIC publish business practice documents?

(e.g. policy statements, position papers, guidelines, training manuals, training resource kits)

1. Yes?
2. No?

## Introduction of FIDIC Contracts

### How many Consulting Engineering professionals does FIDIC represent?

1. < 500.000?
2. Between 500.000 and 800.000?
3. > 1.000.000?

## Introduction of FIDIC Contracts

In how many countries is FIDIC represented?

1. 54?
2. 85?
3. 100+?

## Introduction of FIDIC Contracts

What is a contract

*Agreement having a lawful object entered voluntarily by two or more parties, each of whom intends to create one or more legal obligations between or among them.*

Essential elements of a contract are generally (can slightly differ per legal system):

- Agreement: is made as a result of an offer and an acceptance;
- Capacity: competent persons have legal capacity;
- Consideration: agreement contains an element of value known as consideration. Some benefit whether given or promised;
- Mutuality of obligation: Parties of the Contract intend to create legal relations.

## Introduction of FIDIC Contracts

### Legal characteristics of FIDIC contracts

FIDIC is a non-governmental organisation.

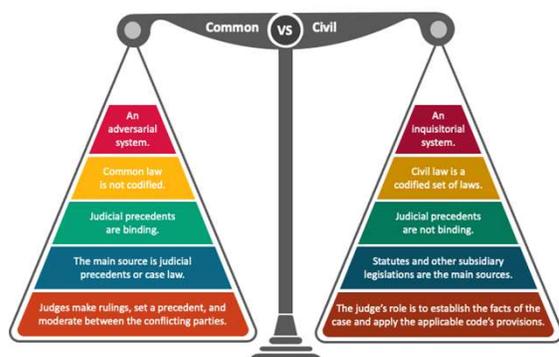
National law prevail above FIDIC contracts;

Contractmanagement by involed parties, not by FIDIC.

## Introduction of FIDIC Contracts

### Relationship with legal systems

#### COMMON LAW VS CIVIL LAW



All legal systems  
(Common- or Civil law)

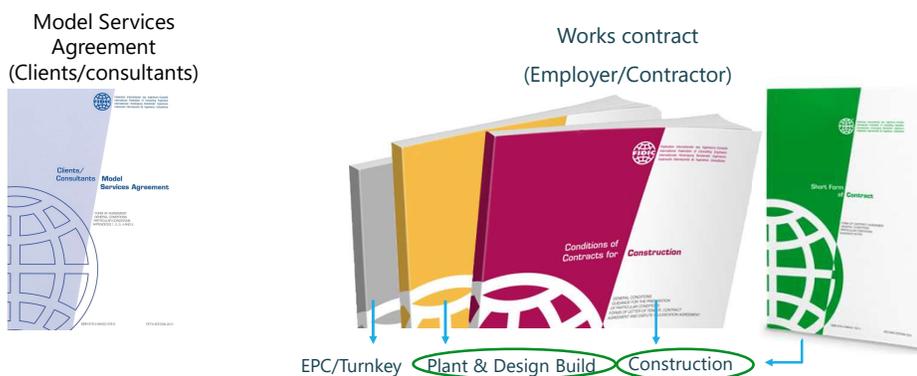
National law has priority  
over FIDIC conditions

National law will prevail if  
there is incoherency  
between FIDIC conditions  
and national law

FIDIC conditions must  
comply with applicable law

## Introduction of FIDIC Contracts

### White Book and Rainbow suite



\*EPC: Engineering, Procurement and Construct

## Introduction of FIDIC Contracts

### White Book



Several project phases: Pre-investment and feasibility studies, detail design, and administration of construction and project management

Employer-led design teams

Contractor-led design teams on design and build commissions

Basic form of a Contract of Appointment between a Client and its Consultant.

It is intended to cover the minimum requirements of a typical appointment contract.

Additional or amended clauses may be required in the Particular Conditions to address particular project and commercial issues between the parties.

A fair balance of risk between the Client and the Consultant

## Introduction of FIDIC Contracts

### White Book



Technical processes during the project phases.

Process	Feasibility studies	Concept	Develop & contract	Further Development	Realisation	Maintenance
Definition process stakeholder requirements	[Active]					
Requirements analysis process	[Active]					
Architecture Design process	[Active]					
Verification process	[Active]					
Validation process	[Active]					
Implementation process	[Active]					
Integration process	[Active]					
Transition process	[Active]					
Maintenance process	[Active]					
Removal process	[Active]					

Client or Client/Consultant      Client/Consultant      Client/Consultant and Contractor (Yellow Book)

## Introduction of FIDIC Contracts

### Red Book 2017



Traditional construction projects (design by Employer, construction by Contractor)

Larger and more complex projects

Monthly payment based on completed work (remeasured contract)

Fair and balanced risk sharing between Employer and Contractor (quantities, cost and time).



## Introduction of FIDIC Contracts

### Yellow Book 2017



Larger and more complex projects

Elektrical & Mechanical Plant or Building and Engineering Works. Designed by the Contractor

Contractor designs and works in accordance with performance specifications in the Employer's Requirements. Employer's Requirements contain preliminary or conceptual design drawings.

Fair and balanced risk sharing between Employer and Contractor (quantities, cost and time).



### Green Book 1999



Contract price is relatively small (<EUR 500.000), or;

Short construction time (<6 months), or;

Involved work is relatively simple or repetitive.

It does not matter whether the design is provided by the Employer (or his Engineer/Architect if he has one) or by the Contractor.

It does not matter whether the project involves construction, electrical, mechanical, or other engineering work.

Fair and balanced risk sharing between Employer and Contractor (quantities, cost and time).



## Introduction of FIDIC Contracts

### General Conditions within the White- and Rainbow Suite Books

Copyrighted intellectual property. Once bought, it can be used in more projects.

Aggregated in groups of sub-clauses dealing with related subjects

Are only amended by the Particular Conditions

## Introduction of FIDIC Contracts

### Risk Analysis

*A risk is an uncertain event that may lead to a deviation from the stated objectives and requirements. The severity of the risk is determined by a combination of the probability that an event will occur and its impact on objectives and requirements.*

For each risk, a risk owner is appointed who is responsible for implementing the measure. The risk owner should be the person who can best manage the risk and is also affected if the risk actually occurs.

Construction project risks:

- Insurable: risks of damage, injury, loss that occurs during the Works (e.g., accidents because of a design flaw)
- Uninsurable: risks that lead to time loss or financial loss, with impact on the project (e.g., late site possession).

## Introduction of FIDIC Contracts

### Risk Analysis

Preparation of procurement and contract:

- Procurement strategy: risk-based
- Instruction to Tenderers: risk-based
- Contract documents:
  - General conditions: according to existing risk deviation in FIDIC book
  - Particular conditions: risk-based
  - Employer's requirements: risk-based

**Remember!** which party:

- can best foresee the risk;
- can best control (and even so bear) the risk;
- most benefits or suffers if the risk eventuates?

## Introduction of FIDIC Contracts

### FIDIC decision model

FIDIC website:

[FIDIC | Which FIDIC Contract should I use? | International Federation of Consulting Engineers](#)



## Introduction of FIDIC Contracts



Responsibilities of main parties

## Introduction of FIDIC Contracts

### Stakeholders involved in FIDIC Contracts

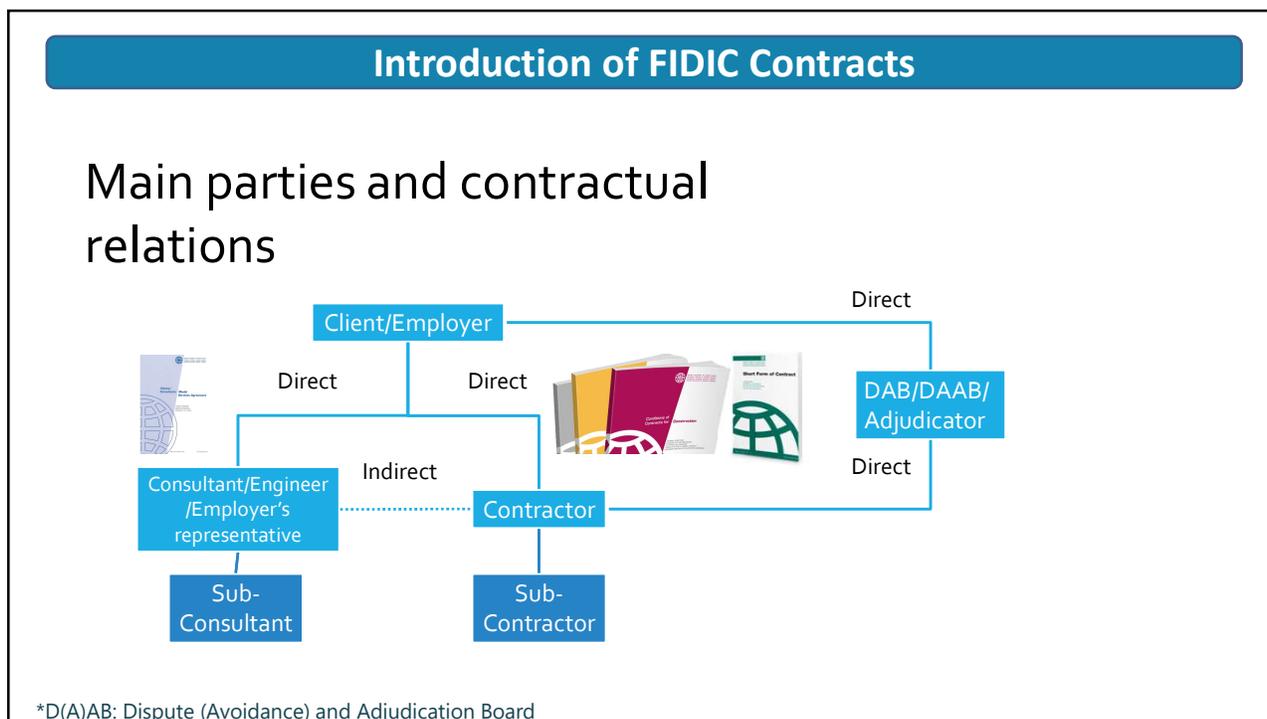
White Book (Service Agreement):

- Client
- Consultant
- Sub-consultant



Red, Yellow, Silver Book (Works contract):

- Employer
- Engineer
- Contractor
- DAB/DAAB
- Sub-Contractor



### Introduction of FIDIC Contracts

## The Client (White Book 2017)

Party named in the Form of Agreement and legal successors to the Client and permitted assignees.

	<p><b>Client</b></p> <p>Shall <u>act in good faith and in a spirit of mutual trust</u> (same goes for the Consultant).</p> <p><u>Provide all information</u> and any further information reasonably requested by Consultant, which may pertain to the Services and which the Client is able to obtain.</p> <p>Responsible of accuracy, sufficiency and consistency of all information provided by the Client (Consultant shall review such information). If not:</p> <ul style="list-style-type: none"> <li>- rectification, and/or;</li> <li>- Variation</li> </ul> <p>May delegate powers and authority to the Client's Representative.</p> <p>Where appropriate, shall describe the function and purpose of the Services and state the same explicitly in <u>Scope of Services (Appendix 1 White Book)</u>.</p>
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## Introduction of FIDIC Contracts

### The Consultant (White Book 2017)

The professional firm or individual named in the Form of Agreement and legal successors to the Consultant and permitted assignees.

#### Consultant



Shall act in good faith and in a spirit of mutual trust (same goes for the Client).

Declares at date of signature of the Agreement, there are no circumstances or matters that may give rise to a conflict of interest. If it does, the Consultant shall inform the Client immediately. If a conflict of interest arises, Parties shall agree, in good faith, on measures to manage such conflict.

Perform the Services as stated in the Scope of Services (Appendix 1 White Book) and with the Programme as may be amended from time to time in accordance with the Agreement.

Proposed key personnel shall be subject to acceptance by the Client.

May delegate powers and authority to the Consultant's Representative.

Where explicitly described in Scope of Services, the Consultant shall perform the role of the engineer, employer's representative, project manager or similar as laid down in the Works Contract.

## Introduction of FIDIC Contracts

### The Employer (Red and Yellow Book 2017)

the person named as the employer in the Contract Data and the legal successors in title to this person.

#### Employer



shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the Contract Data.

if requested by the Contractor, shall promptly provide reasonable assistance to the Contractor so as to allow the Contractor to obtain copies of the Laws of the Country; and any permits, permissions, licenses or approvals required by the Laws of the Country

shall be responsible for ensuring that Employer's Personnel and Employer's other contractors (if any) on or near the Site cooperate with the Contractor's efforts and comply with the same obligations which the Contractor is required to comply with (Health and Safety Obligations, Protection of the Environment).

shall have made available to the Contractor for information, before the Base Date, all relevant data in the Employer's possession on the topography of the Site and on sub-surface, hydrological, climatic and environmental conditions at the Site. Employer shall promptly make available to the Contractor all such data which comes into the Employer's possession after the Base Date.

If the case may be, the Employer shall make Employer-Supplied Materials and Employer's Equipment available to the Contractor in accordance with the details, times, arrangements, rates and prices stated in the Employer's Requirements.

## Introduction of FIDIC Contracts

### The Engineer (Red and Yellow Book 2017)

the person (individual or company) named in the Contract Data appointed by the Employer to act as the Engineer for the purposes of the Contract

#### Engineer



Duty and authority: shall act as a skilled professional (professional consulting engineer) and shall be deemed to act for the Employer.

shall have no authority to amend the Contract or release either Party of any duty, obligation or responsibility

- there shall be no requirement for the Engineer to obtain the Employer's consent before the Engineer exercises his/her authority (Agreement or Determination).
- whenever the Engineer exercises a specified authority for which the Employer's consent is required, then such consent shall be deemed to have been given.

may appoint an Engineer's Representative to act on the Engineer's behalf at Site, except to replace the Engineer's Representative.

## Introduction of FIDIC Contracts

### The Engineer (Red and Yellow Book 2017)

#### Engineer



may issue to the Contractor (at any time) instructions which may be necessary for the execution of the Works, all in accordance with the contract. This can lead to a Variation or Contractor's Notice (Variation, no comply with applicable laws, reduce safety or technically impossible).

can be replaced by the Employer. If the Contractor has reasonable objection by a Notice of Replacement of the Engineer, then the Employer must find another person or company.

Engineer or Contractor's Representative may require the other to attend a management meeting to discuss arrangements for future work and/or other matters. The Engineer shall keep a record of each management meeting and supply copies of the record.

May from time to time assign duties and delegate authority to assistants, and may also revoke such assignment or delegation.

## Introduction of FIDIC Contracts

### The Engineer (Red and Yellow Book 2017)

Actions by Engineer, Engineer's Representative or any assistant:

acceptance	agreement	approval	check	certificate	comment	consent
disapproval	examination	inspection	instruction	Notice	No-objection	record(s) of meeting
permission	proposal	record	reply	report	request	Review
	test	valuation	or similar act	absence of any such act		

...shall not relieve the Contractor from any duty, obligation or responsibility under the Contract.

## Introduction of FIDIC Contracts

### The Engineer (Red and Yellow Book 2017)

in case of Agreement or Determination: "...shall act neutrally between the Parties (Employer and Contractor) and shall not be deemed to act for the Employer."

Agreement or Determination procedure:

<ul style="list-style-type: none"> <li>• Consultation to reach agreement.</li> <li>• Engineer's Determination (fair)</li> </ul>		<ul style="list-style-type: none"> <li>• Agreement =&gt; Notice</li> <li>• No agreement =&gt; Engineer's Determination</li> </ul>
<ul style="list-style-type: none"> <li>• Time Limits</li> <li>• Effect of the agreement or determination</li> </ul>		<ul style="list-style-type: none"> <li>• GC's time limits need to be followed</li> <li>• Each agreement or determination shall be binding, unless and until corrected (dissatisfaction or revised by disputes and arbitration).</li> </ul>
<ul style="list-style-type: none"> <li>• Dissatisfaction with Engineer's determination</li> </ul>		<ul style="list-style-type: none"> <li>• Dissatisfaction leads to DAAB</li> </ul>

## Introduction of FIDIC Contracts

### The Contractor (Red and Yellow Book 2017)

the person(s) named as contractor in the Letter of Tender accepted by the Employer and the legal successors in the title of such person(s).

#### Contractor



shall execute the Works in accordance with the Contract and Employer Requirements (fit for purpose(s) in case the contractor shall design any part of the Permanent Works).

shall provide the Plant and Contractor's Documents specified in Employer Requirements.

shall be responsible for adequacy, stability and safety of all Contractor's operations and activities, of all methods of constructions and of all the (Red book: Temporary) Works.

shall obtain a Performance Security to secure the Contractor's proper performance of the Contract.

shall appoint the Contractor's Representative and shall give him/her all authority necessary to act on Contractor's behalf under the Contract.

shall be responsible for the work of all Subcontractors. The Contractor shall obtain the Engineer's prior consent to all proposed subcontractors, except suppliers of Materials; or a subcontract for which the Subcontractor is named in the Contract.

## Introduction of FIDIC Contracts

### The Contractor (Red and Yellow Book 2017)

#### Contractor



shall, as specified in Employer's Requirements or as instructed by Engineer, co-operate with and allow appropriate opportunities for carrying out work by: Employer's Personnel, any other contractors employed by the Employer, personnel of a legally constituted public authorities and private utility companies who may be employed in the carrying out, on or near the Site, of any work not included in the Contract.

shall set out the Works in relation to the Site Data and Items of Reference.

shall comply with all applicable health and safety regulations as specified in the Contract and Laws.

shall prepare and implement a Quality Management System (specifically prepared for the Works) to demonstrate compliance with the requirements of the Contract.

shall prepare and implement a Compliance Verification System to demonstrate that the design (if any), Materials, Employer-Supplied Materials (if any), Plant, work and workmanship comply in all respects with the Contract.

shall be responsible for interpreting all data referred to under Site Data and Items of Reference.

shall be deemed to:

- have satisfied himself/herself as to the correctness and sufficiency of the Accepted Contract Amount;
- have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters described in SC 4.10 [Use of Site Data](Yellow Book: ...and any further data relevant to the Contractor's design).

## Introduction of FIDIC Contracts

### The Contractor (Red and Yellow Book 2017)

#### Contractor

shall bear all costs and charges for special and/or temporary rights-of-way which may be required for the purposes of the Works, including those for access to the Site.

shall be deemed to have been satisfied, at the Base Date, as to the suitability and availability of the access routes to the Site.

shall be responsible for all Contractor's Equipment

shall take all necessary measures to protect environment, comply with environmental impact statement (if any), limit damage and nuisance to people and property.

shall ensure that emissions, surface discharges, effluent and other pollutants shall exceed neither the values indicated in Employer's Requirements nor those by applicable Laws.

shall be responsible for the provision of all temporary utilities, including electricity, gas, telecommunications, water and any other services. Except the Employer is to provide utilities for Contractor's use.

shall be responsible for the security of the Site.



## Introduction of FIDIC Contracts

### The Contractor (Red and Yellow Book 2017)

#### Contractor

shall confine the Contractor's operations to the Site, and to any additional areas which may be obtained by the Contractor and acknowledged by the Engineer as working areas.

All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. Contractor shall take all reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.



## Introduction of FIDIC Contracts

### The Employer (Green Book 1999)

the person named in the Agreement and the legal successors in title to this person, but not (except with the consent of the Contractor) any assignee.

#### Employer

shall be responsible for the Specification and Drawings

shall provide the Site and right of access thereto at the times stated in the Appendix.

shall, if requested by the Contractor, assist him in applying for permits, licences or approvals which are required for the Works.

No approval or consent or absence of comment by the Employer or the Employer's representative shall affect the Contractor's obligations.



## Introduction of FIDIC Contracts

### The Employer's Representatives (Green Book 1999)

#### Employer's Representatives

One of the Employer's personnel shall have authority to act for him.

The Employer may also appoint a firm or individual to carry out certain duties.

The Contractor shall comply with all instructions given by the Employer in respect of the Works including suspension of all or part of the Works.

No approval or consent or absence of comment by the Employer or the Employer's representative shall affect the Contractor's obligations.



## Introduction of FIDIC Contracts

### The Contractor (Green Book 1999)

the person named in the Agreement and the legal successors in title to this person, but not (except with the consent of the Contractor) any assignee.

#### Contractor



shall carry out the Works properly and in accordance with the contract.

shall provide all supervision, labour, Materials, Plant and Contractor's Equipment.

shall submit to the Employer for consent the name and particulars of the person authorized to receive instructions on behalf of the Contractor.

shall not subcontract the whole of the Works and shall not subcontract any part of the Works without Employer's consent.

shall carry out design to the extent specified, as referred to in the Appendix.

shall remain responsible for his tendered design and the design after signing the contract, both of which shall be fit for intended purposes defined in the Contract.

shall remain responsible for any infringement of any patent or copyright.

## Introduction of FIDIC Contracts

### Questions?

**Coffee break / 15:00 – 15:20**



**Practical application of FIDIC Contracts**



Practical application of FIDIC White-, Red-, Yellow and Green books

## Practical application of FIDIC Contracts

### Golden principles and pitfalls

1. The duties, rights, obligations, roles and responsibilities of all the Contract Participants must be generally as implied in the General Conditions, and appropriate to the requirements of the project.
  - Complies with GP1: limit the number of changes to the general conditions
  - Pitfall: The transfer of the risk of Unforeseeable physical conditions to the Contractor under a Yellow Book Contract.

## Practical application of FIDIC Contracts

### Golden principles and pitfalls

2. The Particular Conditions must be drafted clearly and unambiguously.
  - Complies with GP2: changes to the GCs must be clearly identified by reference to specific Sub-Clause numbers.
  - Pitfall: With rare exceptions, a provision of the GCs is deleted and replaced in the PCs by the words "not used".

The Particular Conditions of Contract are additions and amendments to the General Conditions as follows:

Reference to Sub-Clause	Text
1	<b>General Provisions</b>
1.1	<b>Definitions</b>
1.1.1	In Sub-Clause 1.1.1.1, delete the definition of Contract and replace with: <b>"Contract"</b> means the Contract Agreement and the documents listed therein.
1.1.1.5	The "Employer's Requirements" comprise Volume 3 of the Tender Documents, as completed by the Schedules referred below.

## Practical application of FIDIC Contracts

### Golden principles and pitfalls

3. The Particular Conditions must not change the balance of risk/reward allocation provided for in the GCs.

For risk allocation, determine which party:

- can best foresee the risk;
  - can best control (and even so bear) the risk;
  - most benefits or suffers if the risk eventuates?
- 
- Pitfall: The Contractor not being responsible or liable for the Works carried out by its Subcontractors.

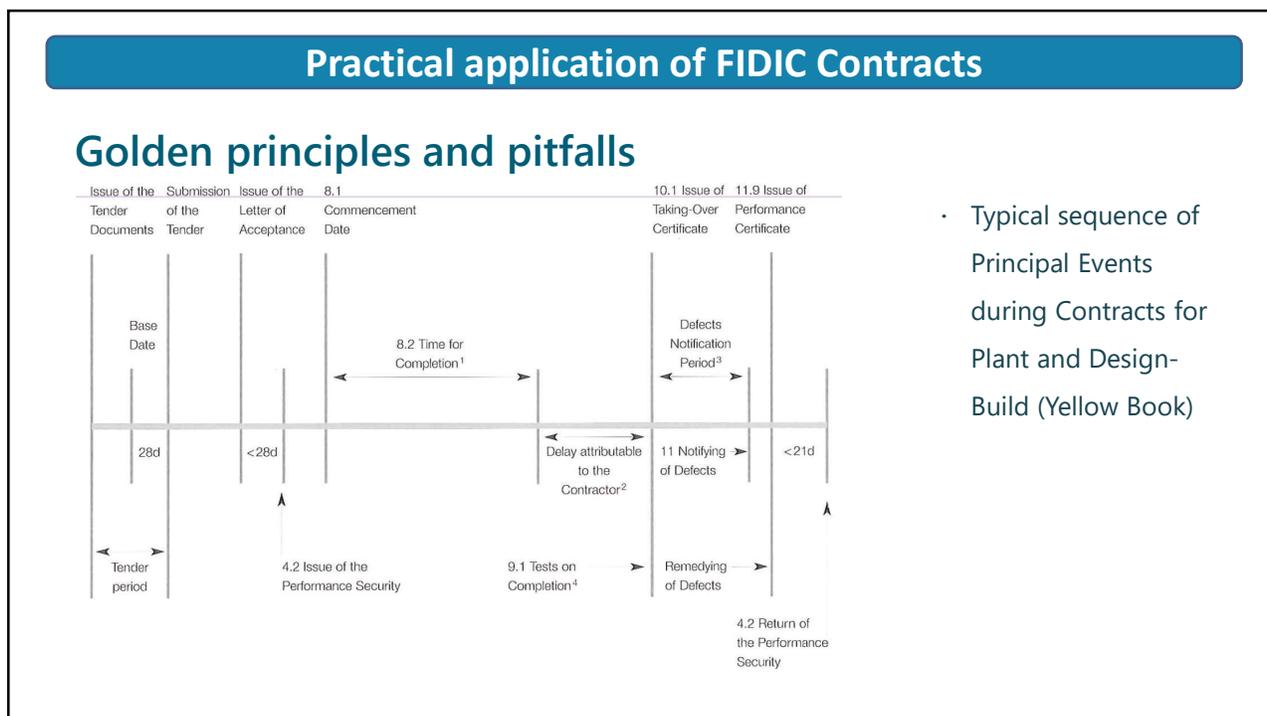
## Practical application of FIDIC Contracts

### Golden principles and pitfalls

4. All time periods specified in the Contract for Contract Participants to perform their obligations must be of reasonable duration.

Do not change the durations of activities, unless the times are qualified as "unless otherwise agreed" in the GC. This relates to GP3 balanced risk/reward allocation.

- Complies with GP4: In Red and Yellow Book the Commencement Date shall be within 60 days after the Contractor receives the Letter of Acceptance, in lieu of 42 days.
- Pitfall: Requiring the Contractor to give notice of an event or circumstance that might give rise to a claim within 5 days after the Contractor became aware or should have become aware of the event or circumstance.



### Practical application of FIDIC Contracts

## Golden principles and pitfalls

5. Unless there is a conflict with the governing law of the Contract, all formal disputes must be referred to a Dispute Avoidance/Adjudication Board (or a Dispute Adjudication Board, if applicable) for a provisionally binding decision as a condition precedent to arbitration.

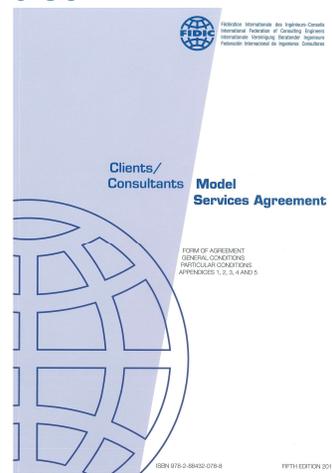
The DAAB/DAB procedure provides an independent third party.

- Complies with GP5: PC's modifications to the GCs: Providing that the DAAB/DAB's decision is final and binding for disputes with a value less than a specified amount;
- Pitfall: PC's modifications to the GCs: Deleting all the clauses in the GCs that refer to the DAAB/DAB.

## Practical application of FIDIC Contracts

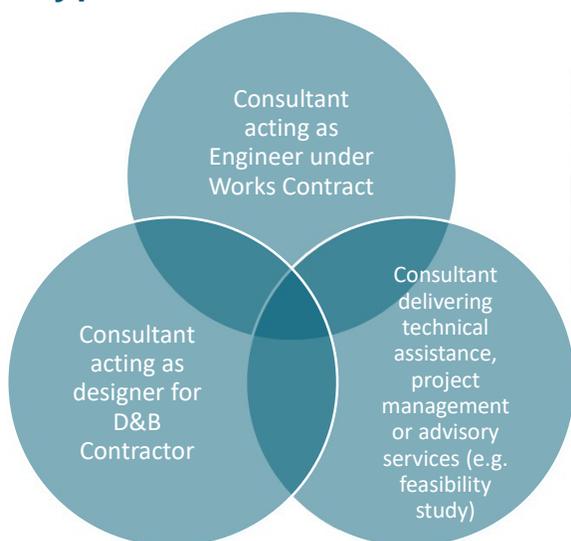
### Preparation of FIDIC White book contract

- Procurement strategy + tender
- Scope of Services (Appendix I)
- Required technical expertise and experience (e.g. key-experts) (Appendix II)
- Time spent or lumpsum remuneration and payment (Appendix III)
- Programme, timeline, milestones, specific instructions (Appendix IV)
- Rules of Adjudication (Appendix V)
- Legal aspects (Particular conditions, part A + B)



## Practical application of FIDIC Contracts

### Typical use of FIDIC White book



## Practical application of FIDIC Contracts

### Benefits of using FIDIC White book contract

- Basic form of contract between Client and its Consultant
- Drafted by experts with engineering, legal and commercial background
- Minimum requirements of typical service agreement are already addressed
- Internationally recognized and suitable for domestic & international projects
- Flexibility to add or amend clauses to address particular project and commercial issues
- Part of a larger framework (FIDIC Rainbow suite)



## Practical application of FIDIC Contracts

### Disadvantages of using FIDIC White book contract

- Not an 'one-size-fits-all' due to localities and specific circumstances per project
- Internal compliance/privacy/QHSEI policies have to be specifically addressed
- Applicable law as included in the Particular Conditions govern the legal obligations and interpretation of the agreement
- Applicable law prevails in case clauses of the FIDIC White Book are considered void
- FIDIC White Book is not drafted as 'back-to-back' arrangement for Contractors that engage Consultants under a Yellow Book or Silver book contract



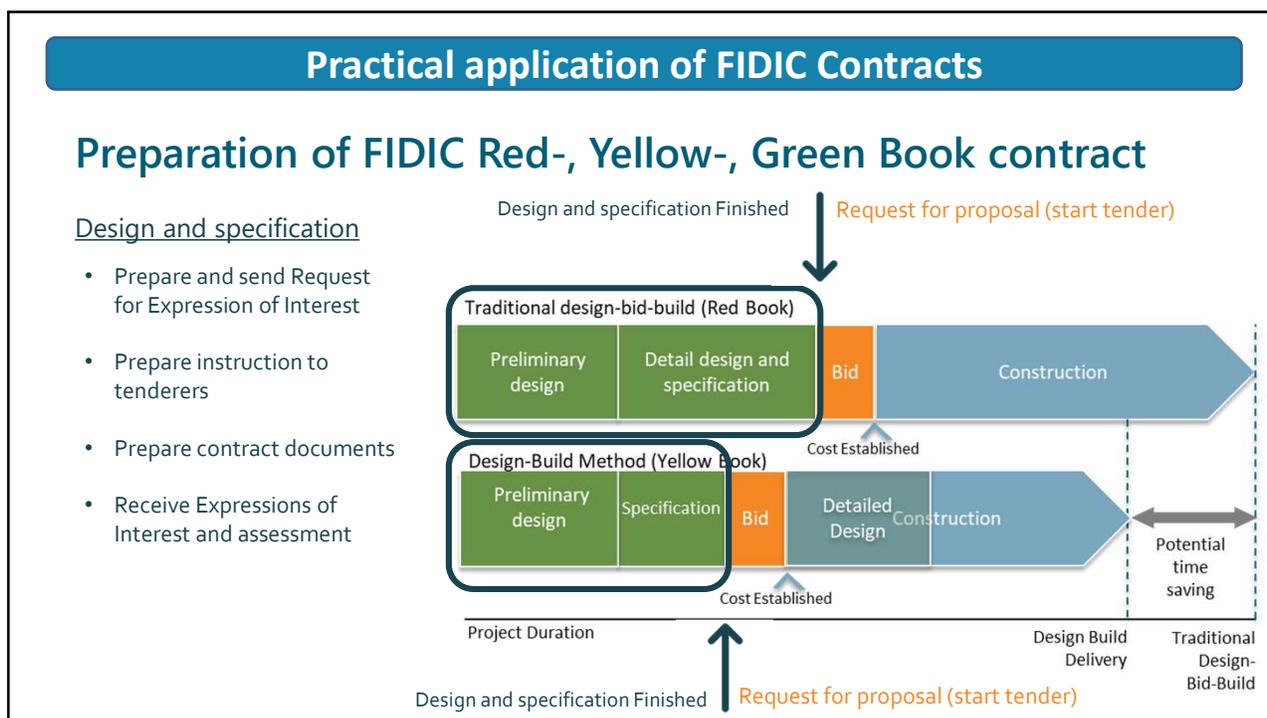
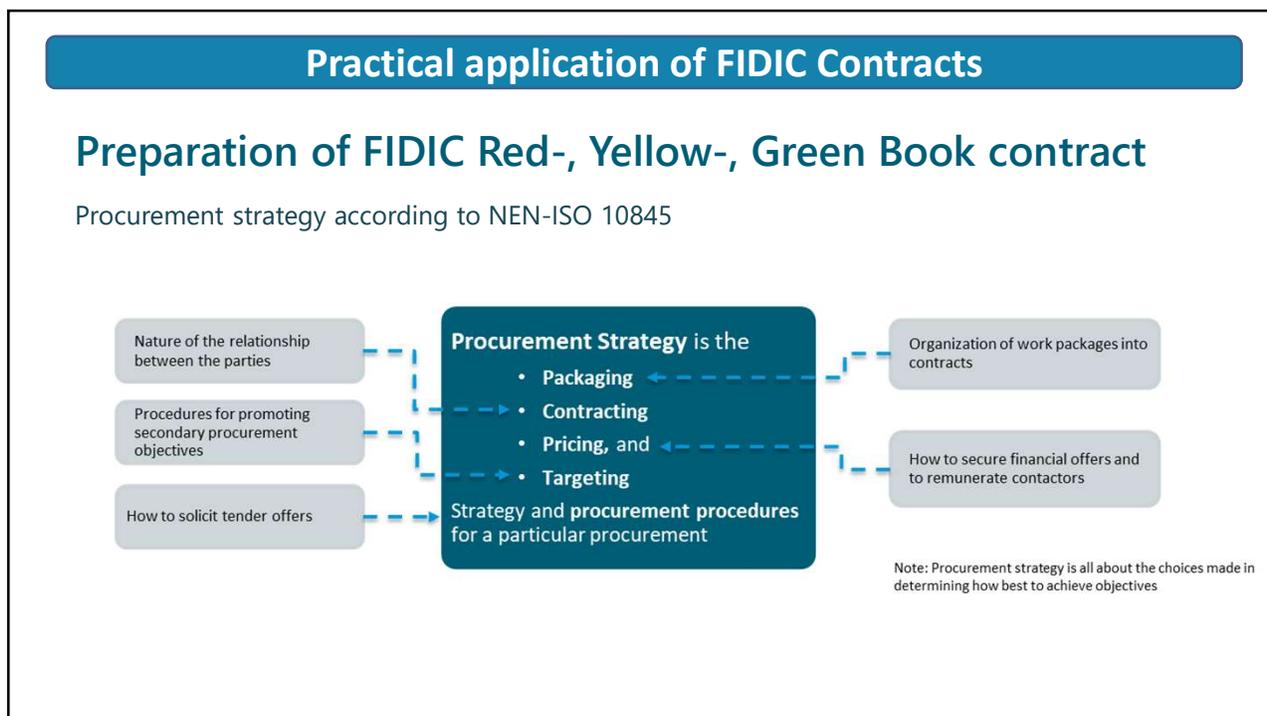


### Practical application of FIDIC Contracts

#### Preparation of FIDIC Red-, Yellow-, Green Book contract

- Procurement strategy according to NEN-ISO 10845
- Design
- Specification
- Tender
- Construction or Design-Build phase:
  - (Detailed design and detailed drawings)
  - Construction

The diagram illustrates the process of preparing FIDIC contracts. It starts with a list of procurement stages: Procurement strategy according to NEN-ISO 10845, Design, Specification, Tender, and Construction or Design-Build phase (which includes Detailed design and detailed drawings, and Construction). Arrows from these stages point to a stack of FIDIC contract books: the Red Book (Conditions of Contract for Construction), the Yellow Book (Conditions of Contract for Construction for Plant and Design-Build), and the Green Book (Conditions of Contract for Construction for EPC/Turnkey Projects).



## Practical application of FIDIC Contracts

### Works contract Index

- Applicable for Red, Yellow and Green book
- The GC are part of contract
- The GC is not a contract on its own

Preparation:

- Joint effort
- Consulting engineer in lead
- Lawyers consulted

If not amended, the only standard part in a contract

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## Practical application of FIDIC Contracts

### Preparation of FIDIC Red-/Yellow Book contract

Specification

- Instructions to Tenderers

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## Practical application of FIDIC Contracts

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Specification  
- Instructions to Tenderers

## Practical application of FIDIC Contracts

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**CONTRACT**

This Agreement is made between \_\_\_\_\_ and \_\_\_\_\_

Whereas the Employer has appointed \_\_\_\_\_ as the Contractor, these Works are:

The Employer hereby agrees to execute the Works in accordance with the Conditions of Contract, the Particular Conditions and the Contract Agreement.

The Contractor hereby agrees to execute the Works in accordance with the Conditions of Contract, the Particular Conditions and the Contract Agreement.

In Witness whereof, the Parties have signed and affixed their seals to this Agreement, in two copies, one of which shall remain with the Employer and the other with the Contractor.

SIGNED by: \_\_\_\_\_  
 for and on behalf of \_\_\_\_\_

Witness:  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Date: \_\_\_\_\_

**CONDITION**

The Conditions of Contract are the General Conditions of Contract, the Particular Conditions and the Contract Agreement.

The General Conditions of Contract are the Conditions of Contract, Edition 1995, as amended by the Particular Conditions.

The Particular Conditions are the Particular Conditions of Contract, Edition 1995, as amended by the Particular Conditions.

**Particular**

The Particular Conditions are the Particular Conditions of Contract, Edition 1995, as amended by the Particular Conditions.

Reference Sub-Clause: 1.1, 1.1.1, 1.1.1.5, 1.1.1.6, 1.1.1.8, 1.1.2.6, 1.1.2.11, 1.1.3.10, 1.1.4.6, 1.1.4.13, 1.1.4.14, 1.1.6.1, 1.1.6.2, 1.1.6.3

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## Practical application of FIDIC Contracts

### Specification

#### - Employer's Requirements

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## Practical application of FIDIC Contracts

### Specification

#### - Schedules

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\*Schedules: scheme, not planning

## Practical application of FIDIC Contracts

Specification

- Additional Documents and Drawings

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	5	List of Romanian Standards
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## Practical application of FIDIC Contracts

Procurement procedures:

- World bank
- World Trade Organisation
- UN Commission on International Trade Law
- European Union →

International methods and procedures		Illustrative equivalent approach using this part of ISO 10845		
Descriptor	Description	Procurement procedure <small>(see Table 2)</small>	Standard tender-evaluation method <small>(see Table 3)</small>	Tender data <small>(see ISO 10845-3)</small>
<b>European Commission</b>				
Open procedure	In this procedure, any tenderer may submit a tender in response to an invitation to do so.	Open procedure	Method 1 or 2	Tender data states which method is to be used.
Restricted procedure	In this procedure, any tenderer may request to participate and only those tenderers invited by the employer may submit a tender.	Qualified procedure	Method 1 or 2	Tender data states which method is to be used.
Negotiated procedure	In this procedure, the employer consults the tenderers of its choice and negotiates the terms of contract with one or more of these.	Negotiated procedure	—	—
Competitive dialogue	In this procedure, the tenderers submit a tender in response to enter into a competitive dialogue which is concluded when tenderers remaining in the dialogue are requested to submit best and final offers.	Open competitive negotiations	Method 2	Tender data states which method is to be used.
Design contest	In this procedure, the employer acquires, mainly in the fields of town and country planning, architecture and engineering or data processing, a plan or design selected by a jury after being put out to competition, with or without the award of prizes.	Proposal procedure using the two-stage system	Method 2 with a quality weighting of 0	Particulars of the competition are set out in the tender data.
<small><sup>a</sup> In the negotiated procedure, there will be no standard tender-evaluation method.</small> <small><sup>b</sup> The open procedure with eligibility criteria stated in the tender data can be used as an alternative.</small> <small><sup>c</sup> The open, qualified or nominated procedure can also be used, as a price is not a factor.</small>				

## Practical application of FIDIC Contracts

### Summary

- FIDIC Red-, Yellow and Green book
- Legal characteristics
- Risk analysis
- Responsibilities of main parties
- Golden Principles
- White Book preparation
- Red-, Yellow and Green book preparation

## Practical application of FIDIC Contracts

### Summary

Keep in mind:

- Changing or upsetting the balance of risk-sharing in FIDIC contracts typically results in:
  - Reduce number of tenderers
  - Higher tender prices
  - Delays to completion
  - Additional time and cost claims
  - (Major protracted) disputes (leading to arbitration)
  - Contract termination (sometimes)

## Practical application of FIDIC Contracts

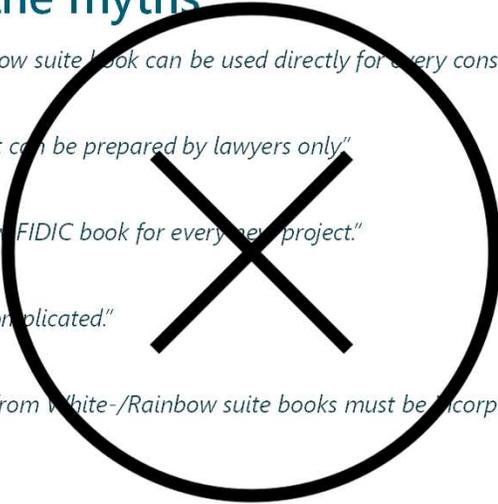
### Summary

Keep in mind:

- Constraining the role of the Engineer results in problems with:
  - Exercising independent professional judgement
  - Successful contract management
  - Dispute avoidance
  - Timely completion

## Practical application of FIDIC Contracts

### Answering the myths

- *"A FIDIC White-/Rainbow suite book can be used directly for every construction project."*
  - *"Conditions of contract can be prepared by lawyers only"*
  - *"You have to buy a new FIDIC book for every new project."*
  - *"FIDIC contracts are complicated."*
  - *"The contract clauses from White-/Rainbow suite books must be incorporated in the tender documents."*
- 

## Practical application of FIDIC Contracts

### Answering the myths

- *"A FIDIC White-/Rainbow suite book can be used directly for every construction project."*
  - It must be made project specific in the tender documents
- *"Conditions of contract can be prepared by lawyers only."*
  - It is advised to have the contract drawn up by a joint effort between consulting engineers, lawyers and procurement specialists (add the technical knowhow).
- *"You have to buy a new FIDIC book for every new project."*
  - Once bought, it can be used in more projects.

## Practical application of FIDIC Contracts

### Answering the myths

- *"FIDIC contracts are complicated."*
  - Once you understand the principles and mechanisms, the steps and procedures for involved parties are easy to follow.
- *"The contract clauses from White-/Rainbow suite books must be incorporated in the tender documents."*
  - White Book: it suffices to refer to the White Book from in the Consultant's Proposal (be aware that white book will not be rejected by Client) or in the Form of Agreement.
  - Rainbow suite: it suffices to declare a specific Rainbow suite Book applicable in the tender documents and refer to it.

## Practical application of FIDIC Contracts



Source: WR Crime Prevention Council (Youtube)

## Practical application of FIDIC Contracts

Questions?



Ekonomikas ministrija



**Thank you for attention!**

**Jaap de Koning** +31 (0) 6 512 00 636 / [Jaap.de.koning@witteveenbos.com](mailto:Jaap.de.koning@witteveenbos.com)  
**Rob Rijnen** +31 (0) 6 134 87 659 / [Rob.rijnen@witteveenbos.com](mailto:Rob.rijnen@witteveenbos.com)

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