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# **An Effective and Efficient Contract Management Regime**

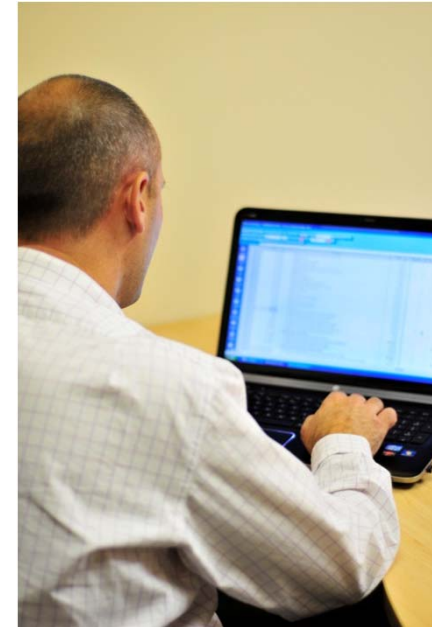
Reference IPMA PM 4-L-C Element 1.04

## **Wessel Pieters & Jaco Laubscher**



## Presentation topics

1. Speakers introduction
2. CM Assertions 1: What is a Contract?
3. CM Assertions 2: Objectives & Elements
4. CM Assertions 3: Constraints - Scope and Technical Requirements
5. Summary: Constraints in one view
6. Instrument Architecture
7. Contract Management Regime – CMR
8. Real Life example ( Excel)



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## Wessel Pieters

Professional Engineer & Project Manager

APMSA-IPMA Certification manager

Local & International management experience

Promotes Project Support Services not only Controls

Experience in

Process & Instrumentation Engineering

Piping Systems – Water & Compressed Air

Heat Pipe Heat Exchangers

Configuration Management

Project Cost Management

Documentation management

Risk & Procurement Management

Project & Contract management

Construction Management



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## Context: Assertions in Contract Management 1

### What is a Contract or an Order?

It is a **Legal**, **Commercial** and **Technical** AGREEMENT describing a management regime

with a specific Purpose

to procure Skills and Resources to achieve a Scope of Services / Work with  
specific Outcomes / Deliverables against a User Requirement / Technical  
Specification to Quality Standards & Performance Specification within a  
Budget and Time-lines

in consideration of Commercial and Legal frameworks.





## Context: Assertions Contract Elements 2A

- **Objectives for a Contract**
  - **Buy-in Skills and Resources to achieve a Scope of Services / Work with specific Outcomes / Deliverables against a User Requirement / Technical Specification to Quality Standards & Performance Specification within a Budget and Time-lines, in consideration of Commercial and Legal frameworks.**
- **Contract Requirements**
  - Commercial Framework Constraints
  - Legal framework rules



## Context: Assertions Contract Elements 2B

### Contract Requirements

- Commercial Framework Constraints
  - Price/Cost Schedule over time: **S-curve & EV's which ▶ Forecast Rate of Invoicing**
  - Provisional & General Rates / Price Schedule
  - Payment Conditions
    - Lump-sum payments - **time-based**
    - Progress payments - **Earned Value based**
  - Payment Terms
    - Waiting periods and
    - Payments method
- Legal framework
  - Standard Conditions
  - Special or Particular Conditions

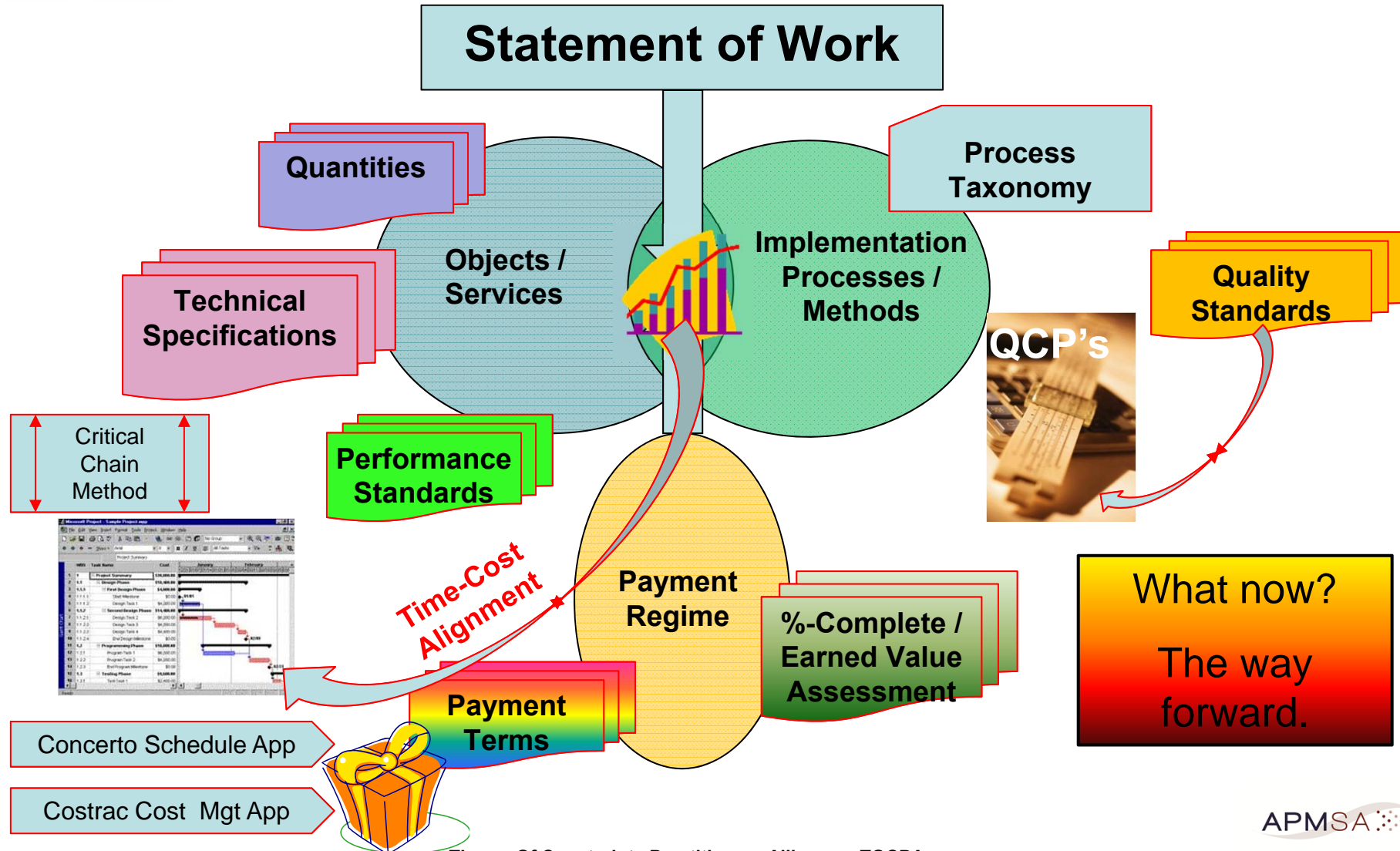


## Contents: Assertions in Contract Management 3

- **A Contract contains Scope and Technical Constraints**
  - Scope of Services or Work Description
    - Object & Subject / Services item Lists
      - to specification criteria
      - comprising Quantities
  - Technical Description
    - Technical Specifications
    - Criteria for Performance or Acceptance
  - Quality Specification - ISO 9000
    - Process & Methods
      - QC Criteria
    - Performance criteria
  - Schedule – time-line which determines **EV and Forecast Rate of Invoicing**
    - Process from the Project Life Cycle definition
      - Activity from the Process definition
        - Task from the Activity definition
  - Discipline responsibility



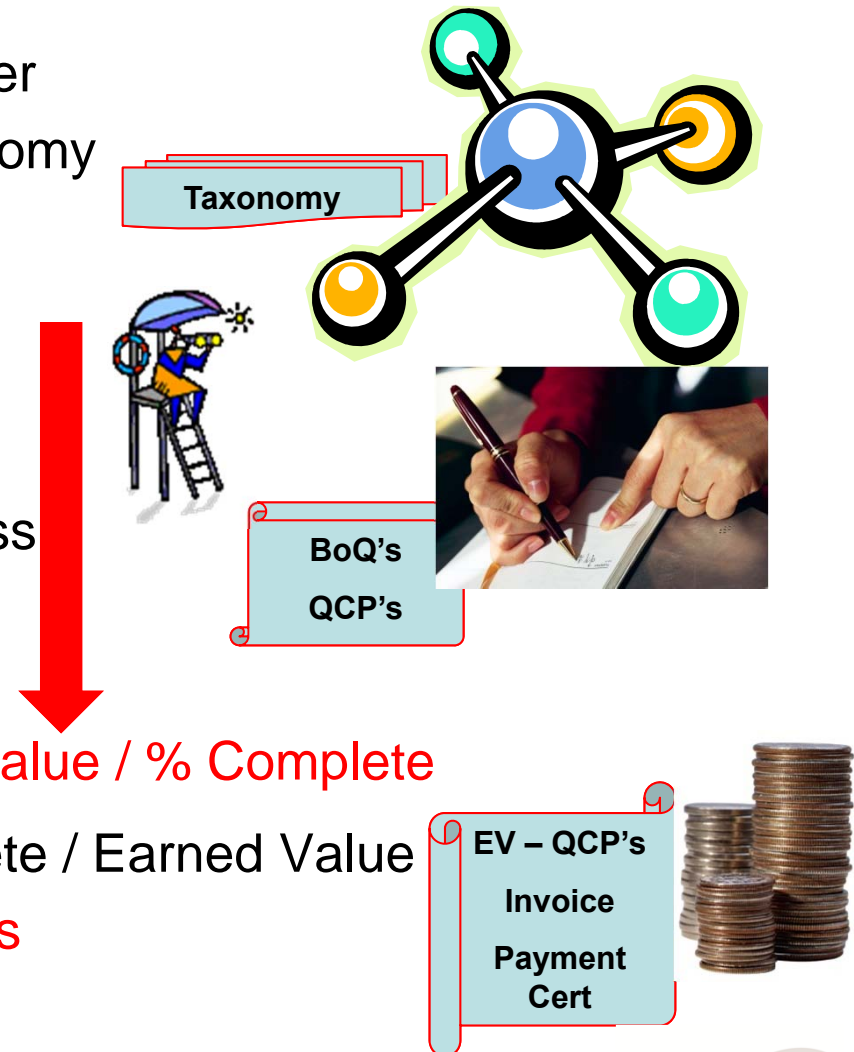
# Summary: CM Constraints & Complexities





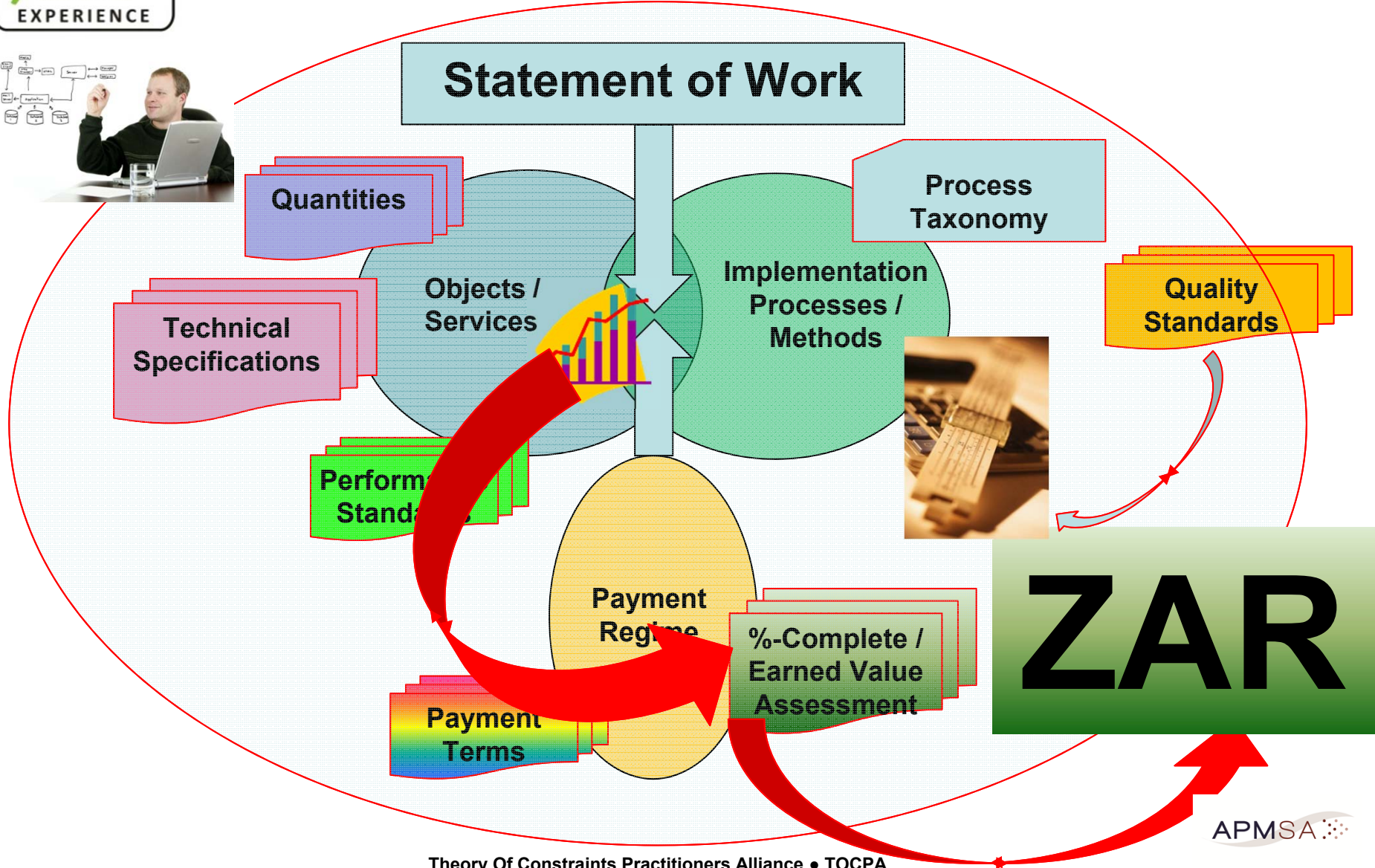
## CMR Architecture

- Model aspects in a relational manner
  - Apply the Implementation taxonomy
  - Normalise the Effort
  - **Schedule the Work / Processes**
- Record the Statement of Work
  - Scope definition
- Monitor the Implementation Process
  - Check Quantities against BoQ
  - Do Quality Control
  - **Determine S-curve & Earned Value / % Complete**
- **Record EV-Certificates: %-Complete / Earned Value**
- **Prepare Invoice with EV-Certificates**
- Prepare Payment Certificates





# The Contract Management Regime





## CMR Benefits – TOC objectives

- Faster Execution / Implementation (try for 30%)
  - Little Rework (if any!)
  - Better quality – near zero non-conformances
  - Schedule Objects and Processes with Discipline groupings
- Record the Statement of Work (Get Change Orders IN!)
  - No Scope creep
- Reduced Resources – Lean Implementation!
  - Progress Reports provide QC-Certification
    - Schedule updates &
    - Invoicing based on Certified EV's
  - Only Supervisors – No special Qty determinations
  - Little admin – only Docu Management
- Critical Chain Buffers used as Risk Management Provisions
- Generates Construction Management records – Governance is OK!
- **Benefits both Client and Contractor – Win-Win solutions**



## Real life Example

MS Office Excel example with Pivot table views

Question time