

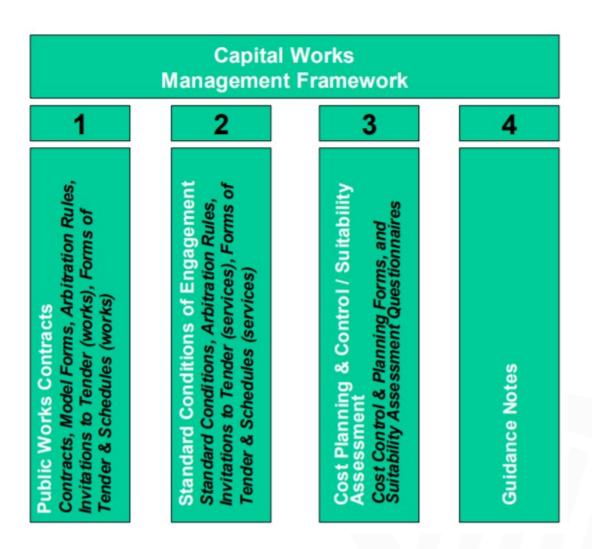
# Incorporation of ICMS into the Capital Works Management Framework

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# Introducing ICMS to the Irish Market.

 "The Capital Works Management Framework (CWMF) is a structure that has been developed to deliver the Government's objectives in relation to public sector construction procurement reform. It consists of a suite of best practice guidance, standard contracts and generic template documents that form four pillars that support the Framework"





#### **Project Stages** Capital Works Management Framework Appraisal Main Project Processes **Design Activities** Design Activities Cost Control Risk and Value Project Documents for Approval in Principle Management (Building) (Civil Eng.) Activities Management Approval Mt. Confer strategic functional performance Project Management Shucker Stage 1 Planning Stage I Manage outputs: Project Definition Conduct Preliminary Report Conduct Feasibility Studies Raview Fearability Studies | Preferencey Preferency Project Brief (through 16 N-overall parameters) Preliminary Output Specification Conduct design studies Conduct cost assessment of Fassibility Report options Feesibility Initial Develop Definitive Project Brief Develop Definitive Project Brief Studies / Phalminary Report (capital and Identify VM strategies weathlify Study and Cost Plan Study / maintenance costs? Develop functional performance model Design Street Preliminary Appoint technical experts (if required): Final Output Specification Manage technical experts' appointment Appoint technical experts (if required) Mr. Identify and assess risk relating to the Project Execution Plan (if required) Appoint PSDP (Frequired) Appoint PSDP (if required) Defeative Project Brist Report Project Executor Plan Develop high-level filsk Management Rink Microsportent Plan Stage II Project Review 1: Confirm approval for design expenditure (Reports Sentening Authority and await approval prior to proceeding) Design Manage procurement strategy ARE Consider VM in relation to procurement. Definitive Procurement Shalogy Manage design consultant appoi Appoint Design Team / Design Team Leader Appoint Design Team / Lead Consultant Contract Type Proposal STREET Manage assessment of output Assess output requirements Develop design standards Check / sessess budget Project Team Selection Report requirements. Assess cultural requirements Mr. Wartily risk in relation to procurement Agree rail affocation Stage 2 Project Review 2: Confirm requirements: review procurement strategy : ..... Planning Manage Outline Design process Develop Outine Sketch Scheme Develop Preliminary Planning Alt: Consider VM in relation to Outline Shatch Outline Shatch Schurrer (Building) Developed Appoint PSDP (if not appointed earlier) Appoint PSEIP | If not appointed earlier Develop Outline Cost Plan Scheme / Preliminary Planning Productory Planning showings (C. Eng.) Mr. Consider RM or relation to Outline **Challens Cleat Plan** Statch Scharge Mt. Carry out value engineering Manage Developed Design process Develop Developed Sketch Scheme Continue Pheliminary Planning Develop Developed Cost Plan Developed Shetch Schore Warrage procurement process Prepare submission for statutory approval Prepare submission for statutory approval Develop Whole Life Cost Apprecial seems buildishilty of the design eligand Coat Plan prosider VM in reliation to Debailed Shetch Schwere and Build Mr. Interestly reporting risks Consider RM in relation to Detailed Sixtch Scheme Project Review 4: Assess project prior to statutory approval (Reports Sanctioning Authority and avoid approval prior to proceeding) Manage statutory submission process Submit for statutory approval Ravine Developed Cost Plan All: Review any planning conditions for value Developed Coal Plan (reviewed) Submit for atabutory approval Review statutory approval outcome Review statutory approval outcome management impact. IM: Review any planning conditions for risk roject Review 5: Assess outcome from statutory approval (Consume a Se Develop Detailed Planning (Design) (not Manage the Detailed Design Process Develop Detailed Design (not design-end-Conduct Detailed and Pre-Tonder Coal AR Playton subshifty assessment of Sender Doouwestation Stage III Detailed Pre-lander Cost Check design-and-build) Checks and Whole Life Cost Update in contractors for VM potential Tender Prepare tender documents Prepare terrelar documents advance of preparing lander documents Whole Life Cost Update **IM:** Planter suitability assessment of pretractor List Salection Project Review 6: Approve detailed design solution: review pre-tender cost check; review risk (thout to black the project principles) Manage the Tender Process leave fender documents Disvelop Torolor Cool Analysis losse tender discurrents Assess tender returns for VM potential Turnsler Assessorment Cirilaria Agrees bender returns Assess fander returns Davidge Tiersday Magnerif funder Analysis And Report EMI: Assess tambe return for risk impact Recommend successful tenderer Recommend successful tenderer Contractor Recommendation Project Review 7: Review tender returns in advance of awarding the contract Paper to Service Autor, and appear into a promoting Manage the implementation / construction: Develop Detailed Design (Design and Stage 3 Stages IV and V Develop Dataled Planning (Design and Build) Manage change control for costs Mt. Carry out value organizary (for design. Various contact management reports process lanage change control Build replanted design and build projects only? Implemention Construction Implement design Mr. Manage residual risk and Handover Manage contract Manage construction real Manage th Project Review Develop Analysis of Outlant Cost AM Evaluate value achieved Project Outlant Review Conduct design review Combat design review Stage 4 ME Evaluate the risk management and risk Review Consider operational risk revise



The Construction Policy Unit of the Office of Government Procurement have the responsibility of supporting the Irish Construction Sector when they engage with the CWMF.

Team of 9 people manage the CWMF which has 4 Pillars:

Pillar 1: PWC's -11 Contract types, supported by,

20 Model Forms, 9 ITT's, 13 Form of Tenders and Schedules, Authorised Bonding Business, Arbitration Rules, Weather Events, Information note on GDPR.

Pillar 2: Conditions of Engagement

2 Standard Conditions of Engagement, 6 Model Forms, 4 ITT's (Services), 2 Form of Tenders and Schedules (Services), Arbitration Rules, Information note on GDPR.

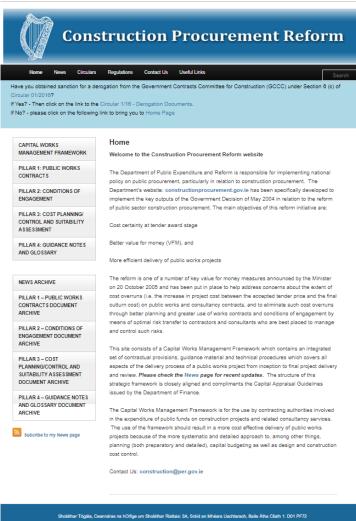
Pillar 3: Cost Planning/ Control and Suitability Assessment

6 Standard forms for Cost Planning and Control, 6 Suitability Assessment Questionnaire's

Pillar 4: Guidance Notes and Glossary

28 Guidance Notes, 1 Glossary,

Totals: 103 Documents – 1000's of pages of Guidance Notes



Oifig um Sholáthar Rialtais

Code	Contract	Nature of Works		
PW-CF1	Public Works Contract for Building Works designed by the Employer	Building		
PW-CF2	Public Works Contract for Building Works designed by the Contractor	Building		
PW-CF3	Public Works Contract for Civil Engineering Works designed by the Employer	Civil Engineering		
PW-CF4	Public Works Contract for Civil Engineering Works designed by the Contractor	Civil Engineering		
PW-CF5	Public Works Contract for Minor Building and Civil Engineering works designed by the Employer	Minor Works, Building and Civil Engineering		
PW-CF6	Public Works Short Form of Contract	All types of work associated with building and civil engineering		
PW-CF7	Public Works Investigation Contract	Investigation Work, Building and Civil Engineering above and below ground.		
PW-CF8	Public Works Short Form of Investigation Contract	Investigation Work, Building and Civil Engineering above and below ground		
PW-CF9	Public Works Framework Agreement	Any type of work associated with construction		
PW-CF10	Public Works Contract for EARLY COLLABORATION	Any type of work with value in excess of €100m where early Contractor engagement is required		
PW-CF11	Public Works Term Maintenance and Refurbishment Works Contract	For urgent and planned maintenance & refurbishment		

11 standard forms of contract.

Building
Civil engineering
Minor works
Small works
Investigation
Frameworks
Early collaboration
Term maintenance and refurbishment.



- Procurement is a complex process engaging Clients, End Users, Administrators, Technical Professionals, Works Contractors, Suppliers, Construction Specialists, and Facility Managers
- Public Spending Code, CWMF Rules, Government Initiatives
  - Government, Construction 2020(2014), A Strategy for a Renewed Construction Sector.
  - GCCC Position Paper (2017), BIM-Adoption-Strategy-Statement-of-Intent, CPP 01/17
  - National Bim Council (2017), Roadmap to Digital Transition For Ireland's Construction Industry 2018-2021

#### Government policy objectives from CWMF:

- Cost certainty at tender award stage
- Better value for money (VFM), and
- More efficient delivery of public works projects



# Cost planning and control in the CWMF

 Standard templates are available from the OGP for the various stages of project life cycle.

- Outline cost plan
- Detailed cost plan
- Tender cost analysis
- Analysis of outturn costs

All templates are prepared using the National Standard of Building Elements and Cost Control Procedures (NSBE)

#### **National Standard of Cost Control Procedures**

Table 1: Matrix of Building and Site Elements and Indirect Costs

BUILDING (Direct Costs)							SITE (Direct Costs)
Substructure	Structure	Structure Completions	Finishes	Services (Mainly Piped and Ducted)	Services (Mainly Electrical)	Fittings and Furniture	
(1-) Substructure Generally	(2-) Structure Generally	(3-) Structure Completions Generally	(4-) Finishes Generally	(5-) Services (Mainly Piped and Ducted) Generally	(6-) Services (Mainly Electrical) Generally	(7-) Fittings and Furniture Generally	(-0) Site Generally
(11) Ground, Earth Shapes	(21) External Walls	(31) External Walls: Completions within Openings	(41) Wall Finishes Generally	(51) Heating Centre	(61) Electrical Supply and Main Distribution	(71) Display, Circulation Fittings	(10) Prepared Site
(12) Reserved	(22) Internal Walls, Partitions	(32) Internal Walls, Partitions: Completions within Openings	(42) Wall Finishes Internally	(52) Drainage and Refuse Disposal	(62) Power	(72) Work, Rest, Play Fittings	(20) Site Structures
(13) Floors in Substructure	(23) Floors, Galleries	(33) Floors, Galleries: Completions	(43) Floor Finishes	(53) Water Distribution	(63) Lighting	(73) Culinary Fittings	(30) Site Enclosures
(14) Reserved	(24) Stairs, Ramps	(34) Stairs, Ramps: Completions	(44) Stairs, Ramps: Finishes	(54) Gases Distribution	(64) Communications	(74) Sanitary, Hygiene Fittings	(40) Roads, Paths, Pavings
(15) Reserved	(25) Reserved	(35) Suspended Ceilings	(45) Ceiling Finishes	(55) Space Cooling	(65) Security and Protection	(75) Cleaning, Maintenance Fittings	(50) Site Services (Mainly Piped and Ducted)
(16) Foundations and Rising Walls	(26) Reserved	(36) Reserved	(46) Reserved	(56) Space Heating	(66) Transport	(76) Storage, Screening Fittings	(60) Site Services (Mainly Electrical)
(17) Piled Foundations	(27) Roofs	(37) Roof: Completions	(47) Roof Finishes	(57) Ventilation and Air Conditioning	(67) Reserved	(77) Reserved	(70) Site Fittings
(18) Reserved	(28) Frames	(38) Reserved	(48) Reserved	(58) Other Services (Mainly Piped and Ducted)	(68) Other Services (Mainly Electrical)	(78) Reserved	(80) Landscape, Play Areas
(19) Summary: Building Substructure	(29) Summary: Building Structure	(39) Summary: Building Structure Completions	(49) Summary: Building Finishes	(59) Summary: Building Services (Mainly Piped and Ducted)	(69) Summary: Building Services (Mainly Electrical)	(79) Summary: Building Fittings and Furniture	(9) Summary: Site

1970 – Need for standardised cost control procedures identified by Government & stakeholders

1973 – Second edition published taking account of international developments in SfB classification system.

1993 – Third (and final edition) – acknowledging establishment of national data bank of construction costs.

Note: 'Reserved' codes should not be used.

#### International Construction Cost Measurement Standard

• ICMS is a global standard for benchmarking and reporting of construction project cost and covers both capital and whole life costing while providing a way of presenting costs in a consistent format.

 In effect ICMS is exactly what Irish Public Sector wants but with the addition of being a global solution.



# Why should Ireland use ICMS?

Economic Considerations – large dependency on construction activity

Foreign Direct Investment (FDI)

International comparisons

Outdated system (NSBE) currently in use which relates to building works

# Introducing ICMS to the Irish Market.

- SCSI mandate (workshops, user manuals, mapping, etc.)
- What about the Public Sector?
  - Pillar 3 of the CWMF
  - Stakeholder engagement with GCCC members
  - Review/Compare ICMS with current cost reporting templates and requirements.
  - Present proposal to the GCCC.
  - Define the introduction period (phasing).



# Introducing ICMS to the Irish Market.

- What about Government?
  - Public spending code and reporting?
  - €9bn for Capital Expenditure in 2021
- Pilot programme
  - RICS/BCIS operating a pilot programme for international cost reporting
  - Irish Government has committed to the pilot.



# Looking to the future

How can the introduction of ICMS add value to Public Works Contracts?

- Allow for the establishment of a cross departmental cost database
- Provide access to global costs for comparison at varying levels of detail.
- Provide established sectorial attributes for non standard projects
- Aid in the digitalisation of PWC supporting documents.
- Expand the CWMF to include Asset Life Cycle rather than just the Project Life Cycle

















#### **Delivering Sustainable Procurement Solutions**





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