Optimising Services Delivery in the Water Industry

Technical Standards - Specifications

Liam Murray
Technical Standards Specialist
Irish Water









What are Standards?

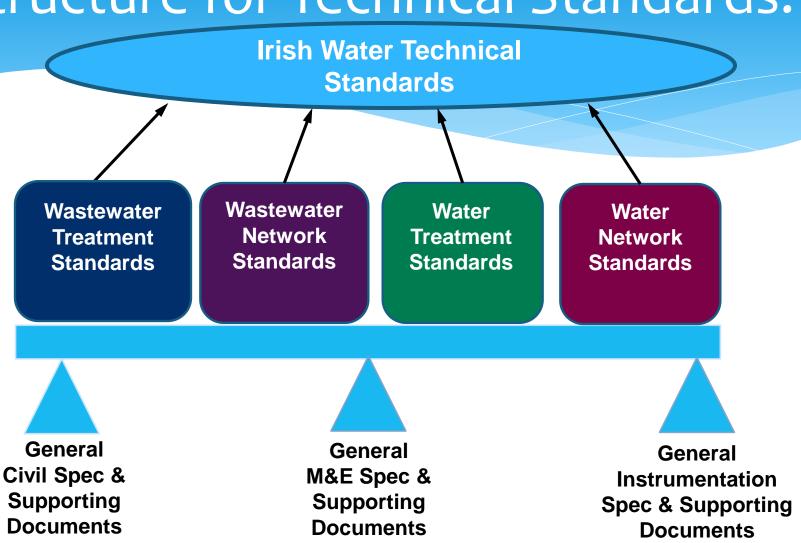
Standards¹ are documents that provide requirements, specifications, guidelines or characteristics that can be used **consistently** to ensure that materials, products, processes and services are **fit for their purpose**.

¹ International Standards Organisation (ISO) Definition

Benefits of Technical Standards



Structure for Technical Standards.



Standard General Specifications

W <u>General Civil</u>
Spec. adopting
CESWI

IW's Amendments to CESWI

IW's Notes for Guidance on CESWI

IW <u>General M&E</u>
<u>Spec</u>. incl.
WIMES

IW's Amendments to WIMES

IW's Notes for Guidance on General M&E Spec incl. WIMES IW <u>General</u>

<u>Instrumentation</u>

<u>Spec</u>.

IW's Notes for Guidance on General Instrumentation Spec.

Standard General Specifications

IW <u>General Civil</u> **Spec**. adopting
CESWI

IW's Amendments to CESWI

IW's Notes for Guidance on CESWI IW General M&E
Spec. incl.
WIMES

IW's Amendments to WIMES

IW's Notes for Guidance on General M&E Spec incl. WIMES IW <u>General</u> <u>Instrumentation</u> <u>Spec</u>.

IW's Notes for Guidance on General Instrumentation Spec.

Standard General Specifications

IW **General Civil Spec**. adopting
CESWI

IW's Amendments to CESWI

IW's Notes for Guidance on CESWI

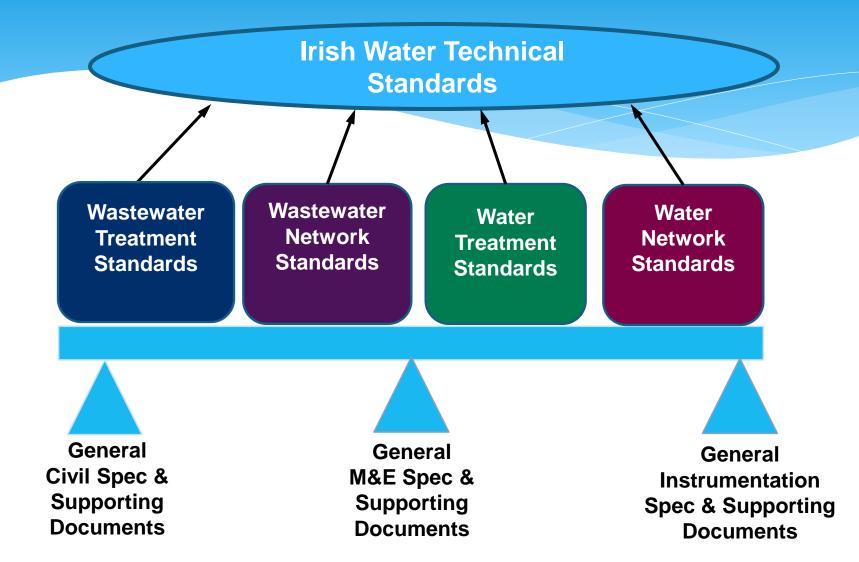
IW **General M&E Spec**.
incl. WIMES

IW's Amendments to WIMES

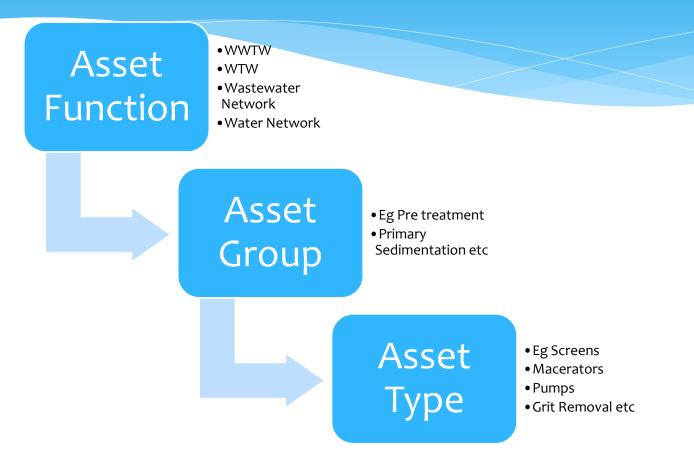
IW's Notes for Guidance on General M&E Spec incl. WIMES IW General Instrumentation Spec.

IW's Notes for Guidance on General Instrumentation Spec.

Structure for Technical Standards



Standards Structure for the 4 Main Business Units



Standards for Asset Types

Parts 1 & 2: Objectives, Asset Design, & Performance Standards Part 3: Standard
Operating Tasks &
Frequencies

Lowest Whole Life Cost Asset Management Approach

Part 5: Decommissioning

Part 4: Standard Maintenance Tasks & Frequencies Performance Standards and O&M Tasks will be exported into Site Operating Manuals



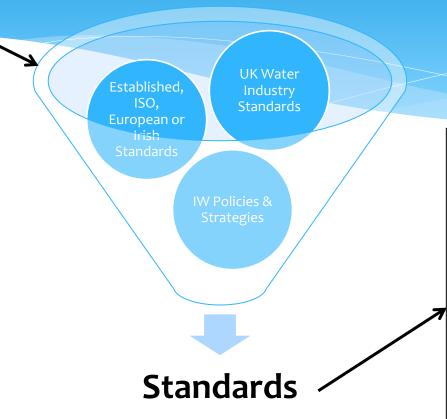
Standards for Asset Types

Document Number Convention		
Asset Function	Wastewater Treatment Works	IW-TEC-700
 Asset Group 	Pre Treatment	IW-TEC-700-01
 Asset Type 	o Pumps	IW-TEC-700-01-1
	Screens	IW-TEC-700-01-2
	 Comminutors 	IW-TEC-700-01-3
	 Macerators 	IW-TEC-700-01-4
	o Etc	Etc
Asset Group	Primary Treatment/Sedimentation	IW-TEC-700-02
Asset Type	 Primary Settlement Tank 	IW-TEC-700-02-1
	Septic Tank	IW-TEC-700-02-2
	 Flow Measurement 	IW-TEC-700-02-3

Standards Delivery

Input From:

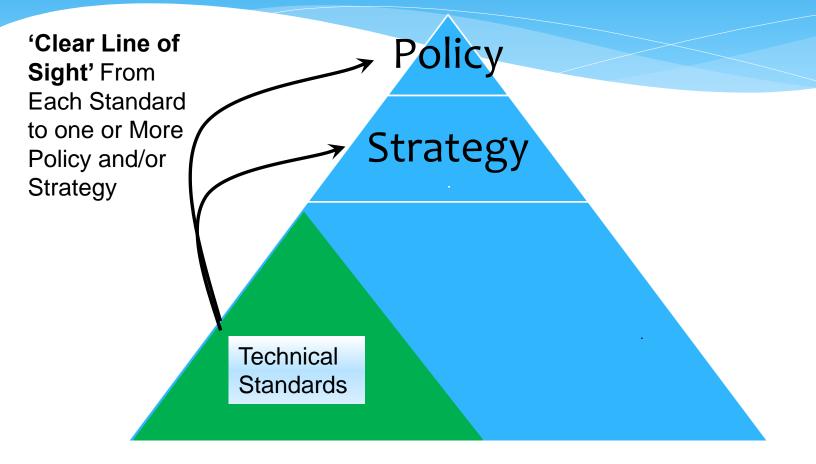
- Irish Water
- Local Authorities
- Consulting Engineers
- Contractors
- Manufacturers
- Suppliers



To Be Continuously Updated using:

- Post Investment Review
- Risk
- O&M Reviews / Process
 Optimisation
- Innovation
- Whole Life Costing Reviews
- Waiver Requests

Where do Standards Fit in the Organisation?



Key Points

- Standards Portal with a system of Waivers or Departures
- Many standards will be released initially for a transition period where their use will be optional After this period, their use will be mandatory
- * Role of the **Designer**
- * Standards Vs Innovation

Asset Management Features of Standards

Asset Management Fundamentals (ISO 55000)

Value; Focus not on the Asset but on the **Value** the Asset can provide

Alignment; Translates organisational objectives into technical... decisions, plans & activities

Leadership; including ensuring employees are aware, competent & empowered & **consultation** with employees & stakeholders regarding asset management

Assurance; ie assurance that Assets will fulfil their Required Purpose

Summary

- * Standards will result in consistency across the country which will lead to reduced costs and consistent service delivery to the customer
- * Standards combined with the use of asset management systems and will result in enhanced evidence based decision making
- * Standards will provide **greater clarity and support to LA's, designers, contractors** in design, construction, operation, maintenance and decommissioning of assets