

**ISO TC190/SC7/WG12**

**PROGRESS ON**

**ISO/DIS 18504:**

**GUIDANCE ON SUSTAINABLE REMEDIATION**

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# SUSTAINABLE REMEDIATION

elimination and/or control of unacceptable risks  
in a safe and timely manner

**whilst optimising the environmental, social and  
economic value of the work**

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# UNSUSTAINABLE REMEDIATION

- Costs too much
- Upsets people
- Damages the environment



## FAILED REMEDIATION

- Doesn't 'do the job'
- Residual uncertainty

# THE ISO WAY...

## ISO standards...

1. respond to a need in the market
2. are based on global expert opinion
3. are developed through a multi-stakeholder process
4. are based on a consensus



# HISTORY OF DEVELOPMENT

- Conceived at SuRF 19 in La Jolla CA, January 2012
- Proposal submitted by BSI EH4 voted and accepted by members of TC190
- Draft text by members of SuRF, SuRF-UK, SuRF ANZ, NICOLE, CABERNET,
- Working group of National Standards Bodies nominees finalised **Committee Draft (CD)** text
  - P Nathanail (UK, chair),
  - G Goetsche (DIN secretary)
  - Regular participants at online meetings: L Bakker (NL), Y Furukawa (J), A Nardello (I), G Smith (AUS), J Smith (UK), M Smith (UK),
- Definition of sustainable remediation confirmed by TC190, Berlin October 2014
- NSB of TC190 voted on CD to progress to Draft International Standard (DIS)
- DIS revised to reflect comments from NSB
- DIS approved unanimously with only minor technical comments

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# SCOPE

This document provides guidance on sustainable remediation. In particular, it provides:

- a standard methodology, terminology and information about the key components and aspects of sustainable remediation assessment;
- informative advice on the assessment of the relative sustainability of alternative remediation strategies.

# SOME DEFINITIONS

## INDICATORS

- single characteristic that represents a sustainability effect, whether benefit or negative impact, which **may be compared across alternative remediation strategies**, comprising one or more remediation techniques and/ or institutional controls, **to evaluate their relative performance**

## METRICS

- measurement of an indicator



# GOVERNANCE MATTERS

Principle	Comment
Legal context is primary	National or local laws shall be complied with
Institutional missions drive institutional actions	An organisation is bound by its mandate
Local solutions are key	Site and local circumstances drive which remediation strategy is sustainable even where the conceptual model of source-pathway-receptor is identical
Decisions needs to be accepted; decision makers need to be trustworthy	Generally public authorities are more trusted and better represent public than responsible parties

# PARSIMONY RULES, OK!

Qualitative (simple but comprehensive)	Semi-quantitative	Quantitative (complex but partial)
Narrative analysis	Pair-wise comparison	Cost Benefit Analysis (CBA)
Non-parametric ranking	Multi-Criteria Analysis (MCA)	Life Cycle Assessment (LCA)
		[Environmental] Footprint Analysis
		Cost Effectiveness Analysis

Start simple



Go as complicated as you NEED to

# INTERNATIONAL STANDARD: NEXT STEPS

- WG Consider technical comments on DIS (April – May 2016)
  - WG submit final text to ISO (June 2016)
  - Final text Translation into French (Summer 2016)
  - ISO Standard Published (late 2016)
  - ?? Daughter standards
  - ??? Update in 3-5 years
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# REMEDICATION IS NOT ENOUGH

- Remediation
- Reclamation
- Recycle
- Redevelopment
- Refurbishment
- Reuse
- Redeploy
- Regenerate
- Revitalise
- **RENEW**

The sum must be greater than the parts

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