

Europe and beyond – the ISO approach to QC

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BSI Committee Member EH3/4

Microbiological methods

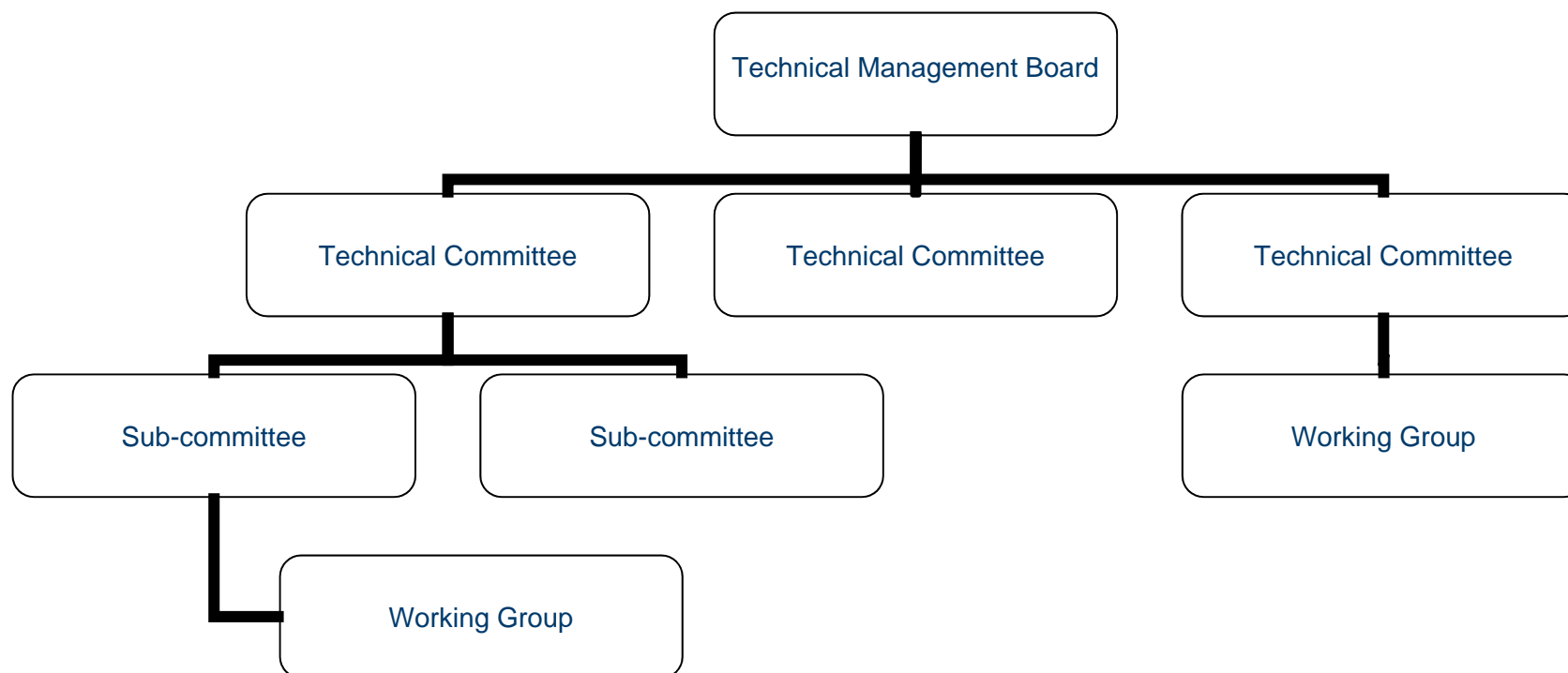
- UK input into European and International Standardization
- What there is in BSI, CEN and ISO standards
- What do we need there to be?
- Questions?

UK Input into European and International Standardization – the context

Basic Operational Structure

Organizational structure

Simplified structure





**European
Committee for
Standardization**

CEN/TC 230
Water analysis



**International
Organization for
Standardization**

ISO/TC 147
Water quality

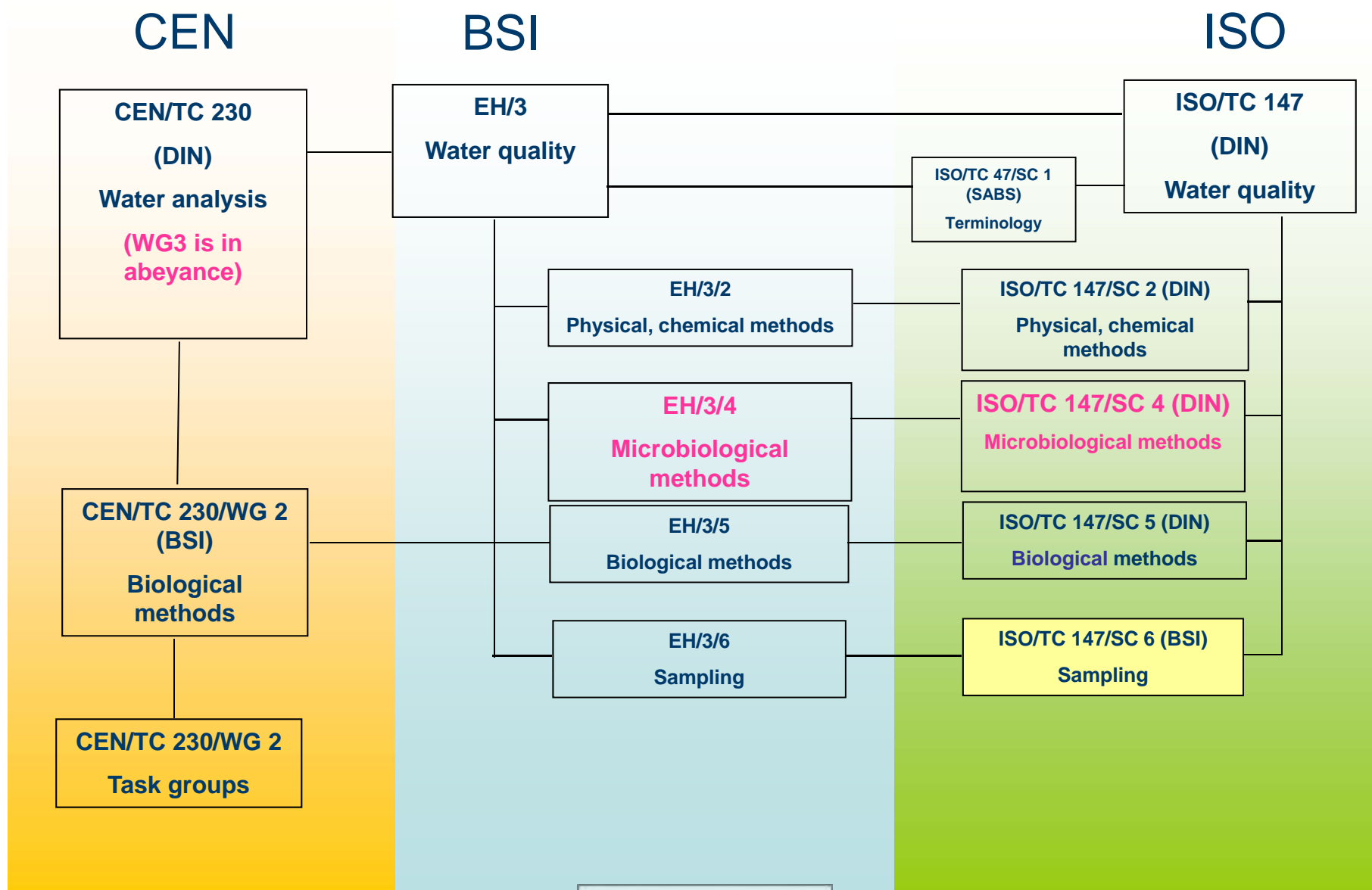
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Water Science Forum

BSI standardization organization



Water Quality Standardization - Structure



Membership of EH/3 includes:

Environment Agency
Drinking Water Inspectorate
Society of Chemical Industry
Laboratory of the Government
Chemist
Royal Society of Chemistry

Membership of EH/3/4 includes:

Environment Agency
Water Companies
Society for Applied Microbiology
GAMBICA (Thermofisher)
Contract Laboratories
HSE
Consultants (!)
Vacancies (!!)

- New Work Item Proposal
- Working Group Consensus
- DIS for comment
- Vote on FDIS
- Standard published
- Review ISO standards after 5 years
- Technical Specifications – review after 3 years
- Publicly Available Specification – review after 3 years
- Technical Reports – non-normative

What there is in BSI, CEN and ISO standards

raising standards worldwide™

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BSI
British Standards

- Water quality: General guidance on the enumeration of micro-organisms by culture
- Very general information on the different enumeration techniques available
- Calculations (from ISO 7218:2001, now obsolete)
- Informative Annex A on choice of methods
- Reference to ISO/TR 13843:2000 (Validation) for terminology
- Discussion of accuracy and uncertainty
- **UNDER REVIEW CURRENTLY!**

- Water quality: Sampling for microbiological analysis
- Purpose of sampling (investigations)
- Sampling regimes
- Representative samples?
- Sampling procedures
- Transport, storage (maximum times) and handling
- Specific to microbiology samples
- Informative Annex A on numbers of samples relative to confidence in results
- General information in ISO 6557 Parts 1 to 15

- Microbiology of food, animal feeding stuffs, food production environment and water — Preparation, production, storage and performance testing of culture media
- The first (and last!) joint standard development with the food microbiology committee (TC34/SC9)
- Developed with BSI Committee AW9
- Normative Annex F detailing QC cultures for water media
- First listing of reference cultures by WDCM (universal) numbers
- Emphasis on quantitative media QC methods for solid and liquid media
- Still at DIS stage so time for comments!

- BS 8496:2007 Water quality – Enumeration of micro-organisms in water samples –Guidance on the estimation of variation of results with particular reference to the contribution of uncertainty of measurement
- ISO 29201 Water quality - The variability of test results and the uncertainty of measurement of microbiological enumeration methods
- What do we really need when considering uncertainty of water microbiology test results?

- ISO/TS 16489:2006 Water quality – Guidance for establishing the equivalency of results
- Statistics to test the equivalency of results from two different methods used for water testing
- ISO/TR 13843:2001 Water quality – Guidance on validation of microbiological methods
- Mention of method performance characteristics and AQC applied to microbiology
- Under review currently

What do we need there to be in water
microbiology standards?

- One clear standard for microbiological AQC
- Similar to ISO/TS 13530 Water quality – Guidance on AQC for chemical and physicochemical water analysis
- Details and definitions in the many current standards touching on AQC issues harmonized
- Definition of performance characteristics in water standard methods so laboratories may demonstrate competence for accreditation
- Possible collaborative trials (EU Mandate) so reliable data is available for regulatory testing and compliance
- Faster development of standards
- More involvement in BS, CEN and ISO work!!

Any questions?