



Introduction to ISO PC 305 Sustainable Non-sewered sanitation systems -

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Accra - 17 July 2017



Plan

ISO Overview

PC 305 establishment

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ANSI's support



ISO Overview

- Founded in 1947
- Independent
- Non-governmental organization
- Global network of national standards bodies*
- One member per country
- ISO membership comes with **rights, benefits, obligations and good practice**

162 members

21 100
International Standards

100
new standards each month

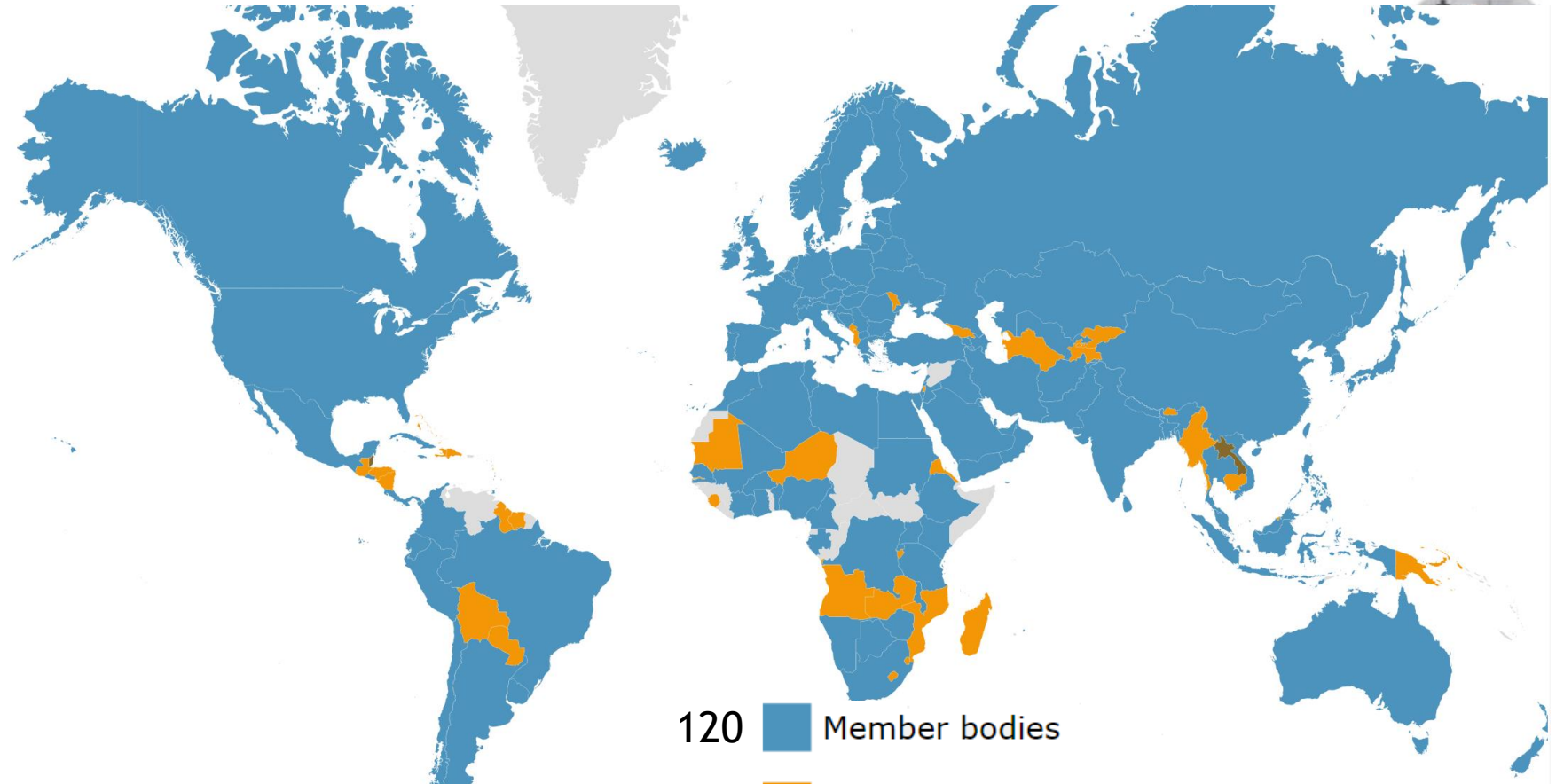
More than
100 000 experts

238
technical committees



*National standard body = national body most representative of standardization

ISO Overview



- 120 Member bodies
- 39 Correspondent members
- 3 Subscriber members

PC 305 establishment



Lack of standards and implied issues for expanding sanitation options



- No quality (design, performance) standard in the non-sewered sanitation sector
 - High information costs (time and money) for users
 - High expert knowledge required for evaluating complex sanitation solutions
- Slow transfer process for innovations into market
- Lack of benchmark for quality and performance obstructs innovation adoption
- Unclear “success parameters” which must be defined for each research project again
 - time consuming and expensive for R&D
 - Inefficient market
- Fragmented market

Standards can pave the way for accelerated innovation and commercialization cycles while ensuring human, environmental health and safety

PC 305 establishment (cont.)



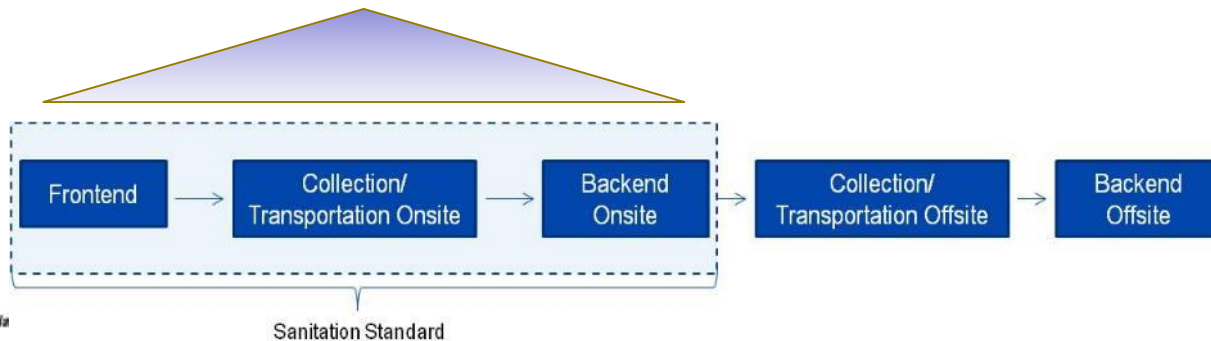
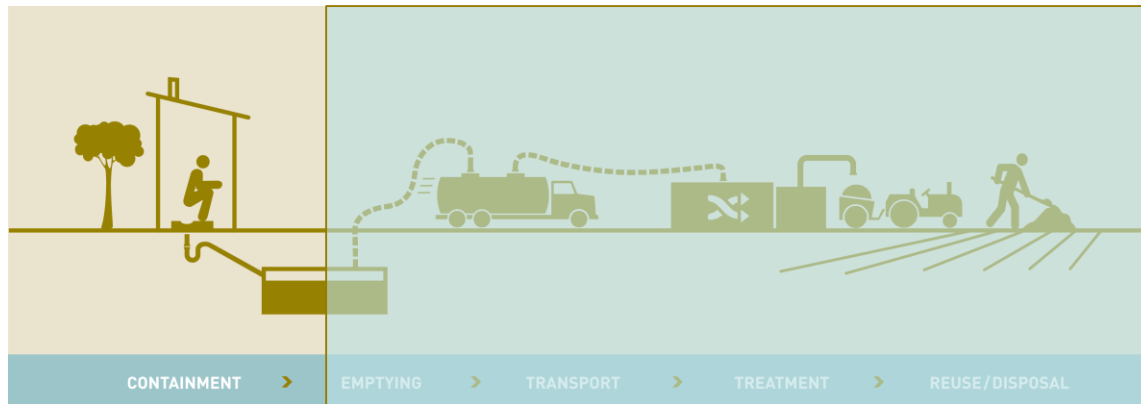
- May 30, 2016 - The Technical Management Board approves the creation of the Project Committee, ISO/PC 305 on Sustainable non-sewered sanitation systems and allocates the secretariat to ANSI (USA)
- ANSI entered into a twinning agreement with ASN (SENEGAL) for the secretariat of the PC.
Secretary: Rachel HAWTHORNE ANSI
Co-secretary: El hadji Abdourahmane NDIONE ASN
- The TMB vote to approve Dr. Doulaye Kone as PC 305 chair on August 2016.

PC 305 scope

Standardization in the field of sustainable non-sewered sanitation systems



- **Out of scope (ISO 30500):** transportation and treatment outside of the sanitation system; activities related reuse and disposal of treated output



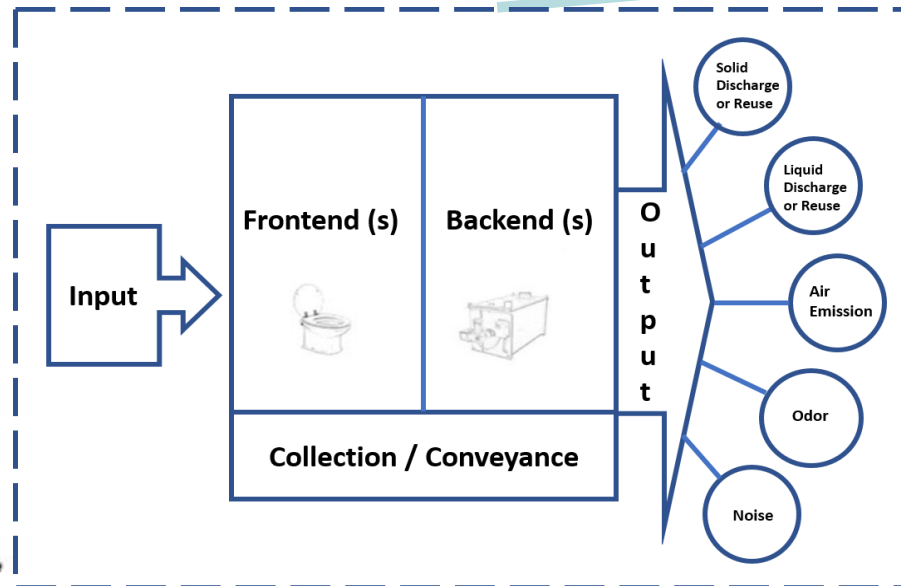
Scope - Non-sewered sanitation system



- **Scope - Non-sewered sanitation system is a sanitation system that**
 - 1) is not connected to a networked sewer system
 - 2) Collects, conveys, and fully treats on-site the specific input within the system, to allow for safe reuse or disposal of the generated solid, liquid, and atmospheric output.

- **The scope is represented within the dashed lines:**

Minimum requirements for input (4.3.1)



Technical requirements, test methods, and sustainability considerations

Requirements for solid and liquid output, odor, air, and noise emissions

Clause 4 - General requirements



Design general (frontend and backend):

- 4.1 User requirements
- 4.5 Expected technical lifetime
- 4.6 Aspirational design
- 4.7 Secure design
- 4.10 Material requirements
- 4.12 General safety design requirements
- 4.14 Maintenance

System functionality:

- 4.3.4 Overload protection
- 4.3.5 Operability following non-usage
- 4.3.6 Operability following short-term shutdown
- 4.3.7 Operability following long-term shutdown
- 4.3.8 Continuous use

Information:

- 4.2 Metric system
- 4.3.2 Treatment capacity
- 4.13 Information and marking
- 4.14.4 Tools and devices
- 4.14.5 User manual

Components:

- 4.10 Material requirements
- 4.11 Connections and joining elements

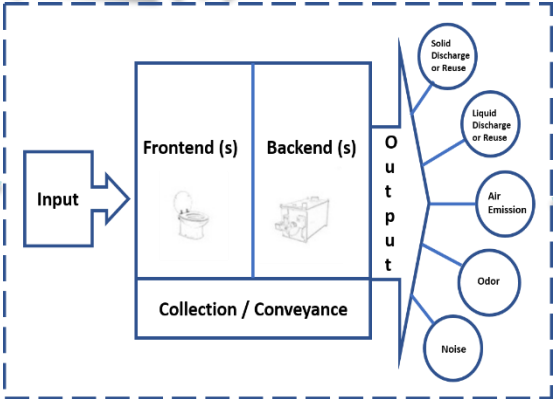
Input:

- 4.3.1 Treatable input
- 4.3.3 Menstrual hygiene products
- 4.9.5 Chemical and biological additives

4.9 Sanitary requirements

Output:

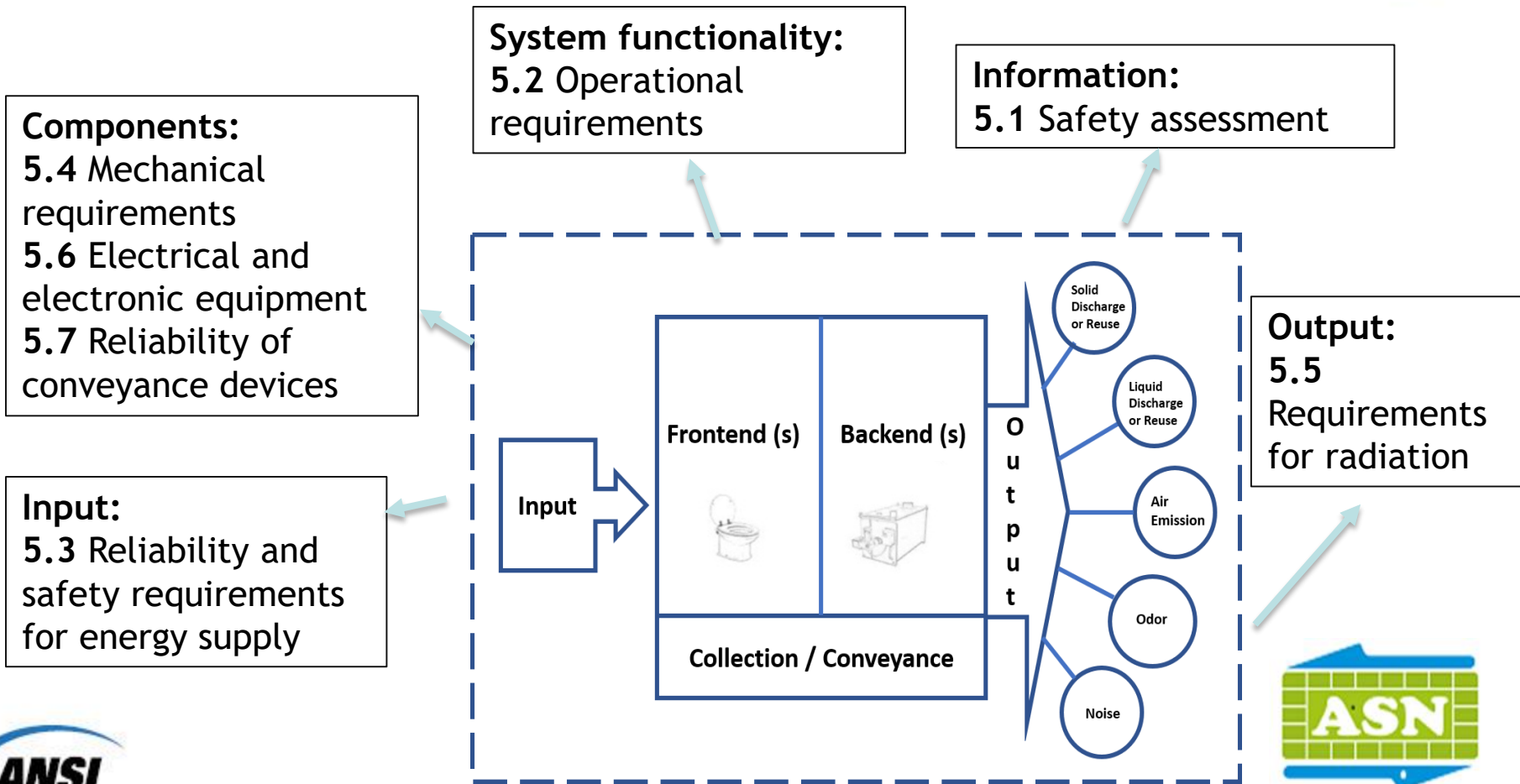
- 4.4 Performance requirements



Clause 5 - General technical requirements



Clause 5 – specifies requirements relevant for overall system (frontend and backend) focusing on more technical and more component specific aspects



Clause 6 - Additional requirements for the frontend

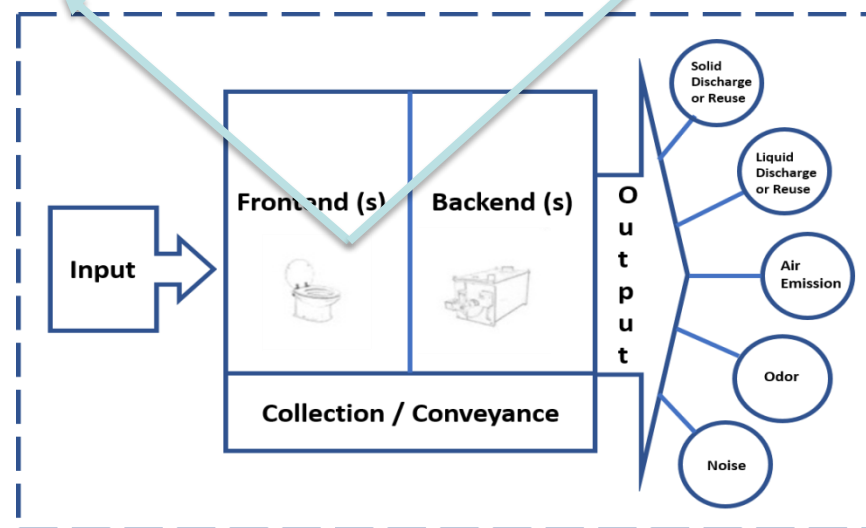


- **Clause 6** – Additional requirements for the frontend - specifies requirements only relevant for the frontend

Design general (frontend):

- 6.1 General
- 6.2 Use and operation
- 6.3 Visibility of feces
- 6.5 Integrity against external impacts
- 6.6 Slipping, tripping, or falling

Components: 6.4 Evacuation performance



PC 305 timeline



- January 25, 2016 - NWIP establishing the committee circulated to ISO member bodies for three-month vote
- April 25, 2016 - ISO reported that we have met the voting criteria to form a PC
- May 30, 2016 - PC 305 created
- October 24, 2017 - 1st PC 305 meeting, Washington, DC USA
- January 31, 2017 - First WG 1 meeting, Dakar, Senegal
- June 19, 2017 - 2nd PC 305 and WG 1 meetings, Durban, South Africa
- Sept 25-27, 2017 - 3rd WG 1 meeting, Berlin, Germany
- May 21-25, 2018 - 3rd PC 305 and 4th WG 1 meeting, Nepal

PC 305 Structure



ISO Project Committee on Non-sewered sanitation systems

Chairman: Doulaye Kone, USA

Secretariat: USA & Senegal

Role: Overall strategic management and administration of the committee's work

ISO Project Committee When Operating in Working Group Mode

Convener: Doulaye Kone, USA

Secretary: USA and Senegal

Project leader: Gerald Kresta, USA

Role: Drafting the ISO non-sewered sanitation system standard based on direction from the committee



Flow of Direction/Decisions
Flow of Proposals/Draft Standard



PC 305 membership



- Burkina Faso (ABNORM)*
- France (AFNOR)*
- Gabon (AGANOR)*
- Benin (ABENOR)*
- Cameroon (ANOR)
- United States (ANSI)
- Austria (ASI)
- Senegal (ASN)
- Haiti (BHN)
- India (BIS)

- Ghana (GSA)*
- Morocco (IMANOR)*
- Kenya (KEBS)*
- Nepal (NBSM)
- Democratic Republic of Congo (OCC)*
- Rwanda (RSB)*
- Australia (SA)
- South Africa (SABS)
- China (SAC)*
- Canada (SCC)
- Finland (SFS)



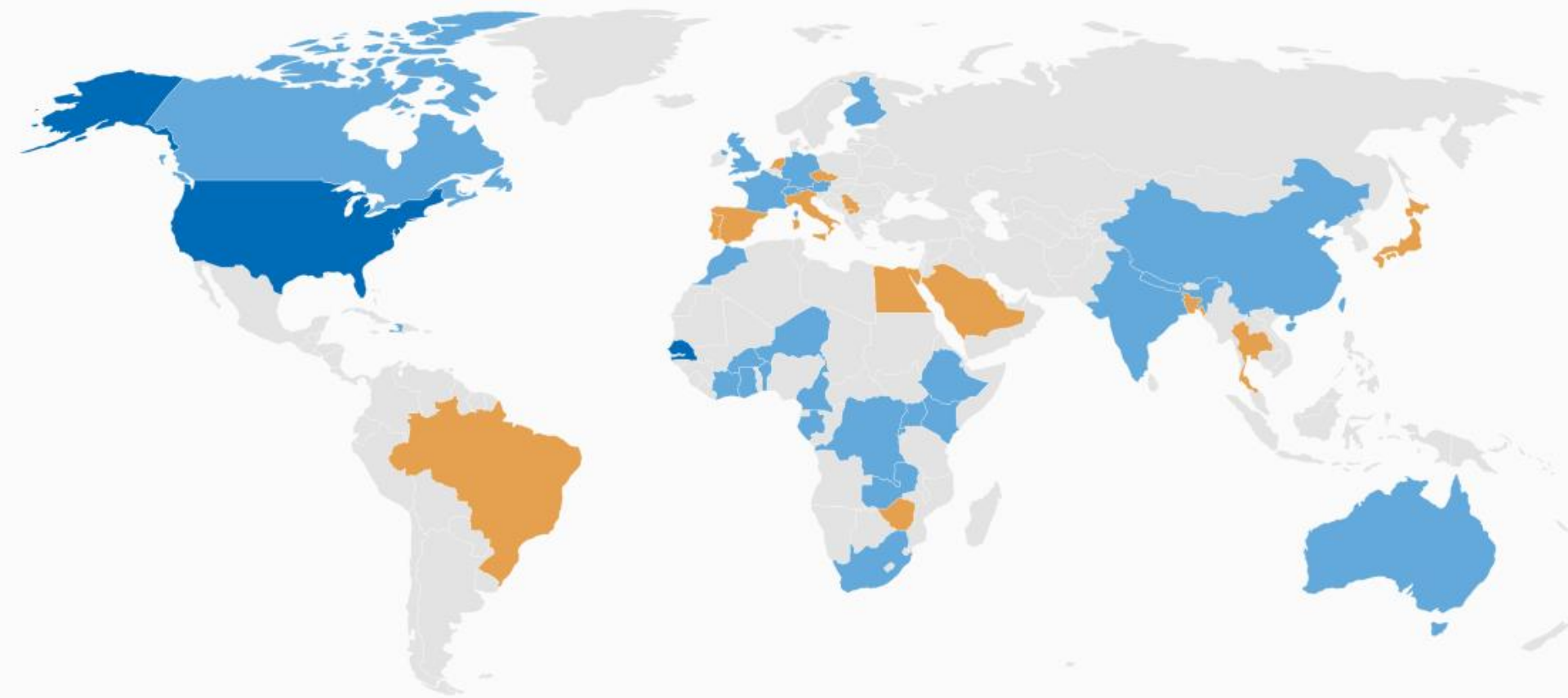
PC 305 membership



- United Kingdom (BSI)
- Côte d'Ivoire (CODINORM)*
- Germany (DIN)
- Niger (DNPQM)*
- Ethiopia (ESA)*
- Brazil (ABNT)
- Bangladesh (BSTI)
- Egypt (EOS)
- Portugal (IPQ)
- Serbia (ISS)
- Japan (JISC)
- Netherlands (NEN)
- Republic of Korea (KATS)
- Switzerland (SNV)
- Uganda (UNBS)*
- Zambia (ZABS)*
- Saudi Arabia (SASO)
- Zimbabwe (SAZ)*
- Singapore (SPRING SG)
- Thailand (TISI)
- Spain (UNE)
- Italy (UNI)
- Czech Republic (UNMZ)

ISO/PC 305

Sustainable non-sewered sanitation systems



Secretariat ■

United States - American National Standards Institute (ANSI)

Twinned Secretariat ■

Senegal - Association Sénégalaise de Normalisation (ASN)

Participating Members (29) ■

Observing Members (14) ■

PC 305 liaisons



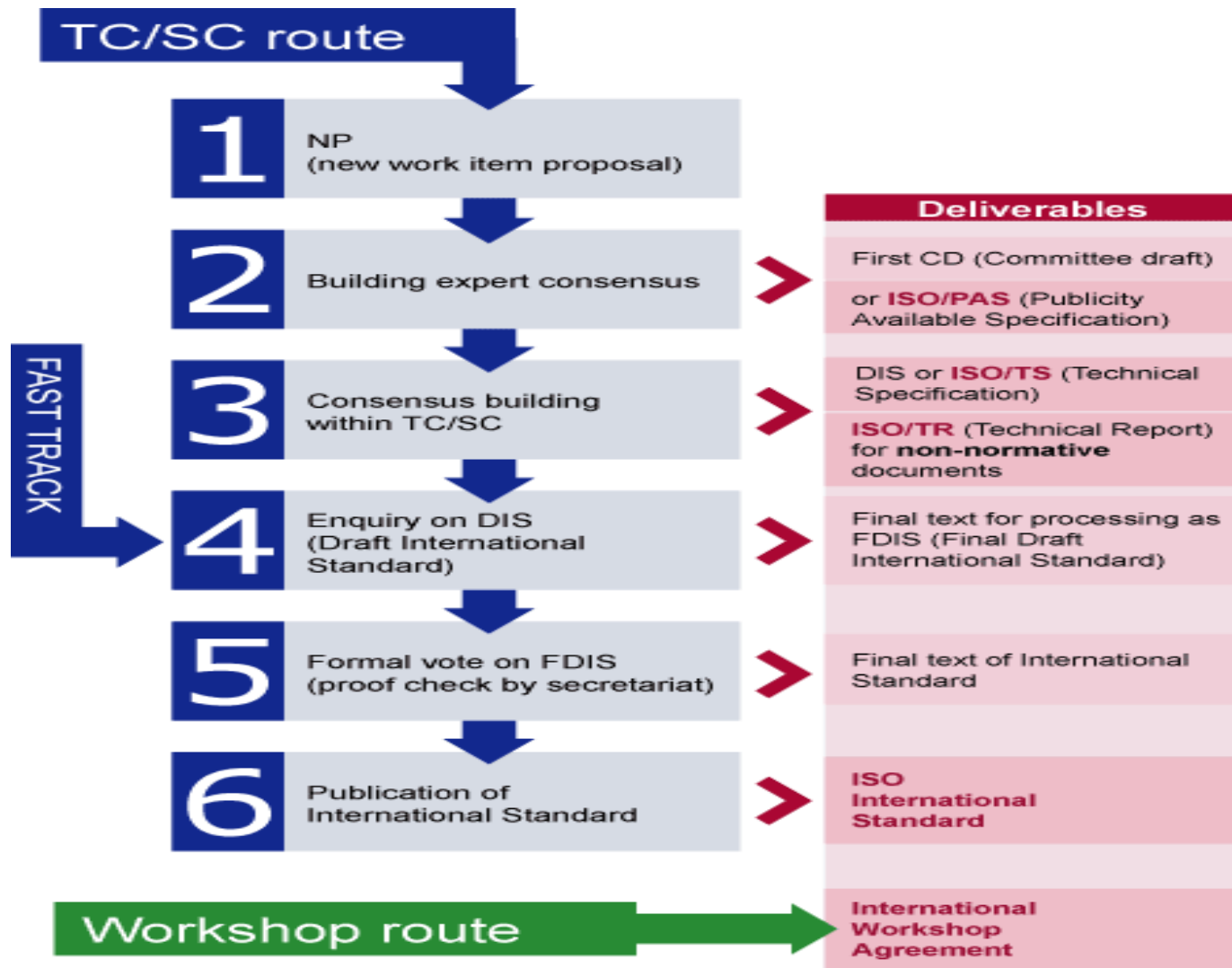
■ Internal

- ISO/TC 224 - Service activities relating to drinking water supply systems and wastewater systems - Quality criteria of the service and performance indicators
- ISO TC 275 - Sludge recovery, recycling, treatment and disposal
- ISO/TC 282 - Water reuse

■ External

- AfWA
- Toilet Board Coalition

ISO standards development process

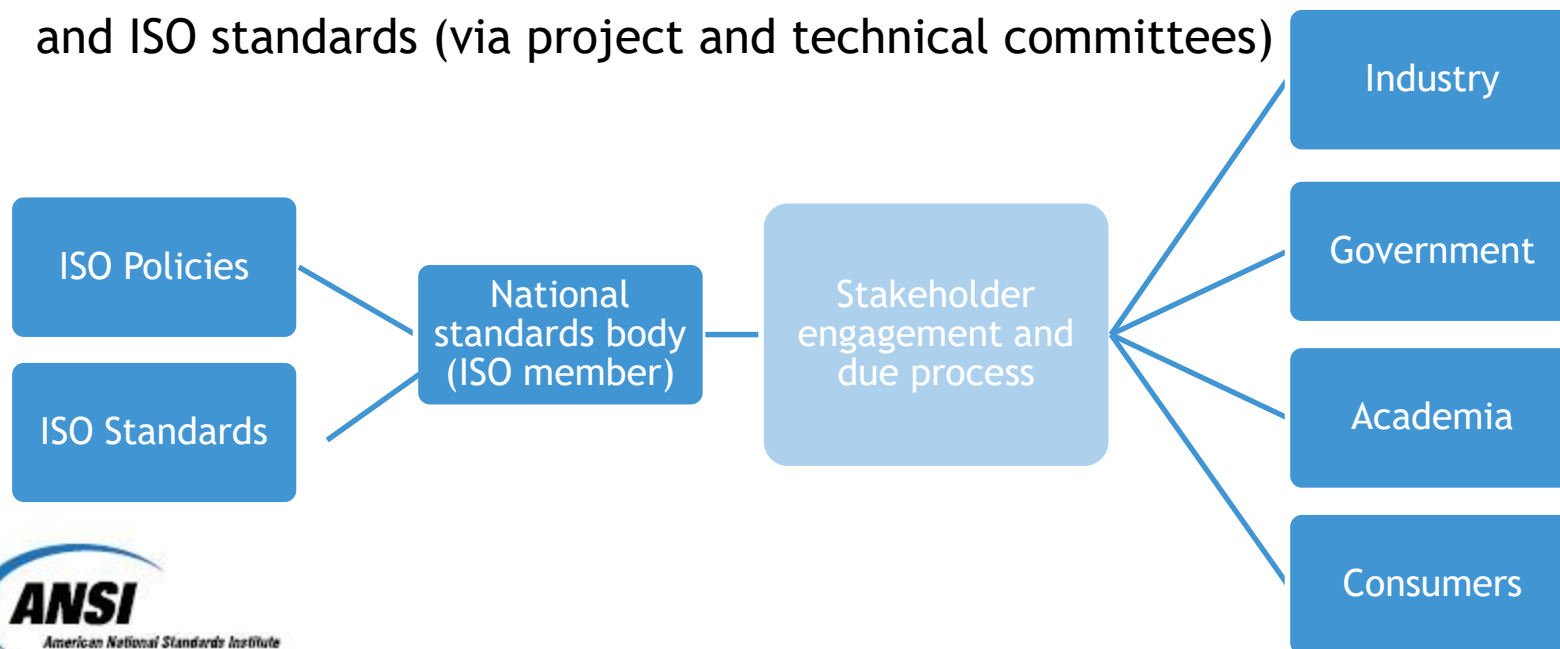


How to get involved?



A network of national standards bodies

- One member per country - cannot be an individual or company
- Members are responsible for organizing consultations with stakeholders in the country in order to develop a national position
- Members represent their countries in the development of ISO policies and ISO standards (via project and technical committees)



How to get involved? (2)



Step 1: Is your country a member of PC 305?

Find out here:

<https://www.iso.org/committee/6170397.html?view=participation>

Step 2: Contact your national standards body

ANSI and ASN can help!

Step 3: Join national mirror committee

– Various ways to participate:

- Review and vote on draft documents
- Attend national coordination meetings
- PC meetings (international)

Support is available



- PC 305 plenary and working group meetings take place in person 2-3 times per year
 - September 25-27, 2017 - WG meeting (Berlin)
 - May 21-25, 2018 - 3rd PC and WG meeting (TBC - Nepal)
- Thanks to generous support from the Bill & Melinda Gates Foundation, travel scholarships are available for experts attending meetings