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Faecal sludge treatment units — Energy independent, prefabricated, community-scale, resource recovery units — Safety and performance requirements

*Unités de traitement des boues de vidange — Unités préfabriquées et
autonomes en énergie de récupération de ressources à l'échelle locale
— Exigences de sécurité et de performance*



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Foreword

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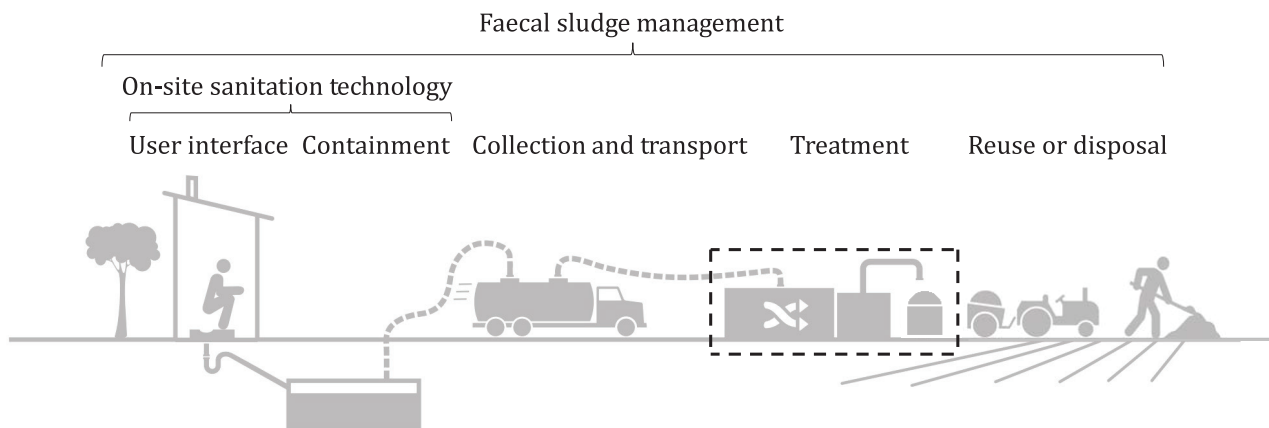
This document was prepared by Project Committee ISO/PC 318, *Community scale resource-oriented sanitation treatment systems*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Hygienic sanitation systems are crucial for public health, yet 61 % of the global population do not have access to safely managed sanitation services; that is, excreta safely treated in situ or treated off-site.

Safe and sustainably managed sanitation improves health and welfare and is fundamental to human development. Integrated business models and technologies throughout the sanitation value chain (see [Figure 1](#)) can ensure the economic viability of processes that turn waste into valuable resources, such as renewable energy by-products (e.g. electricity, biofuels, or briquettes) or agriculture products. Safely managed sanitation systems can also prevent contamination of water sources, thus leading to livelihood improvements.



NOTE Treatment is the focus of this document (depicted in the dashed box).

Figure 1 — Sanitation value chain

As shown in [Figure 1](#), this document focuses on non-sewered faecal sludge treatment units with the purpose to specify performance and safety requirements of community-scale resource recovery faecal sludge treatment units serving approximately, but not limited to, 1 000 to 100 000 people. It aims to specify technical requirements and recommendations for such treatment units in terms of performance, safety, operability and maintainability.

This document is intended to ensure the performance, safety, and sustainability of community-scale resource recovery faecal sludge treatment units as well as technical robustness and safety in terms of human health and the environment.

It further aims to promote trust among the different stakeholders involved in faecal sludge management, such as investors, technology developers, government officials, regulatory bodies, local service providers, and users, increasing their willingness to implement innovative new technologies. Manufacturers and technology developers can use this document to gain consumer confidence in the reliability and safety of treatment units. Stakeholders can use this document as a benchmark to compare performance capabilities of different treatment unit options and identify which option is most suitable for their needs.