



FSM
Field Experiences

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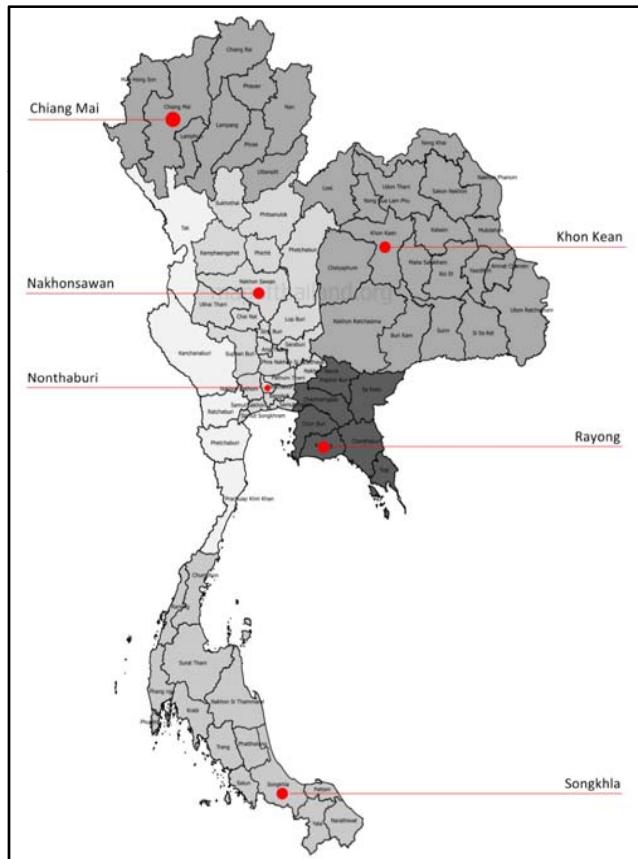
Introduction

Analytical
Parameters

FS Sample
Collection

Analytical
Process

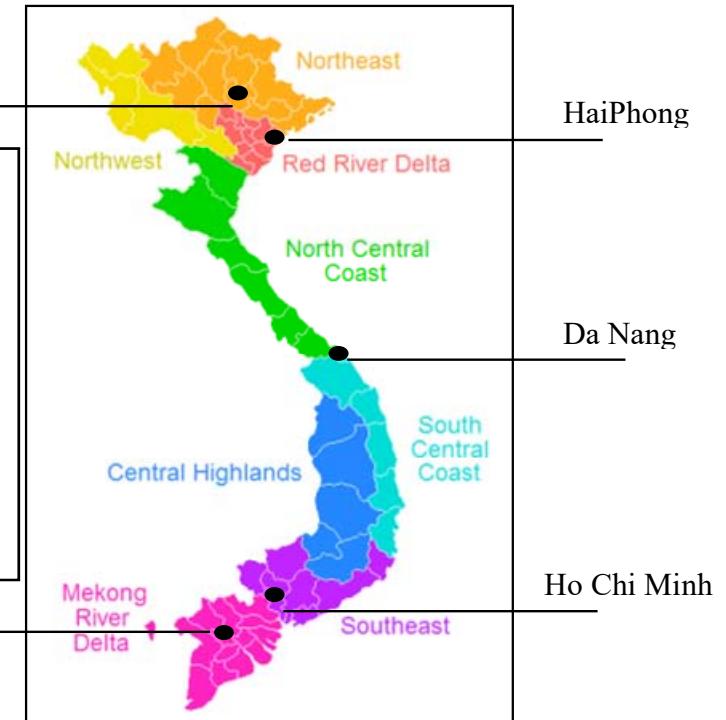
Study Areas



Thailand



Cambodia



Vietnam

Introduction

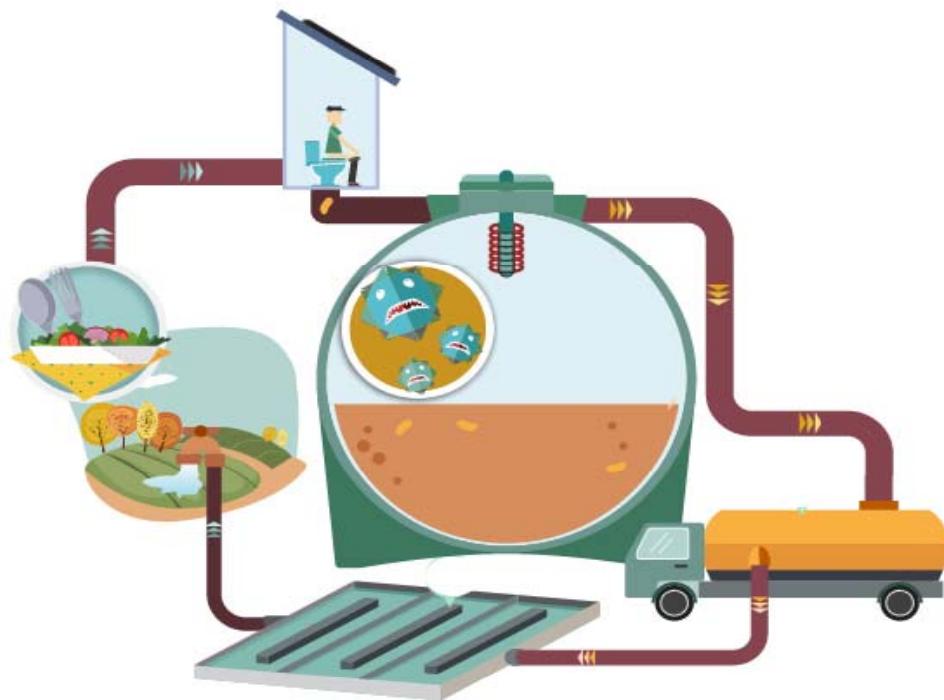
Analytical
Parameters

FS Sample
Collection

Analytical
Process



FS Treatment Disposal
and Reuse



Faecal Sludge Management (FSM) Field Experiences



FS Collection and Transportation

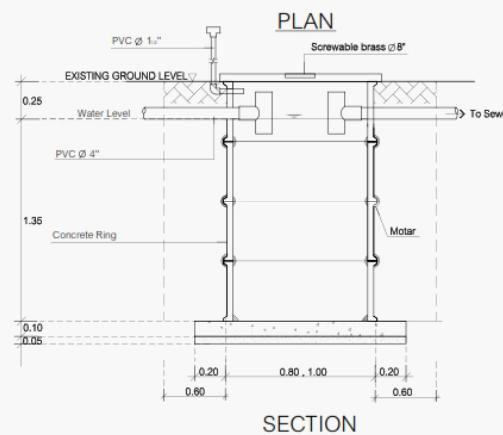
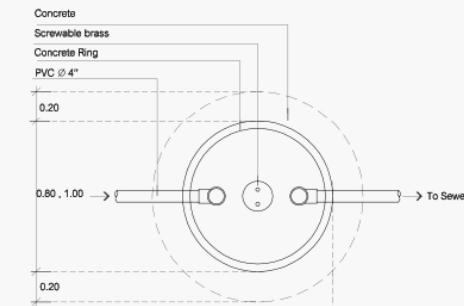
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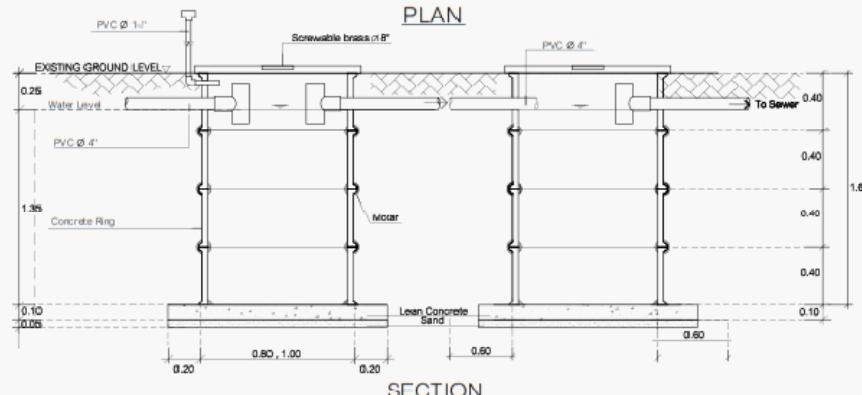
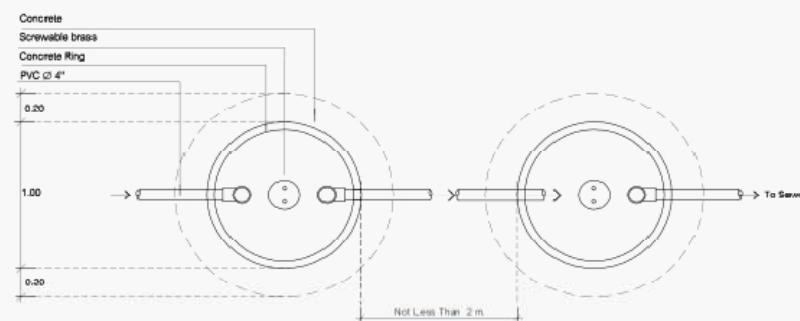
FS Sample
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Types of FS Containment



One Ring Cesspool



Two Ring Cesspool

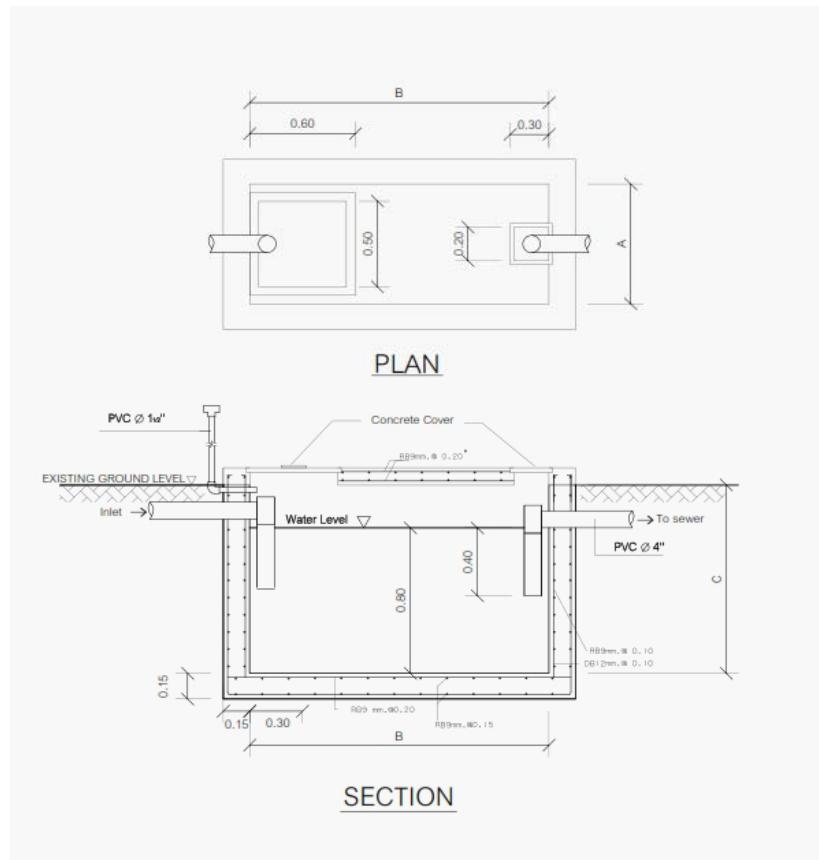
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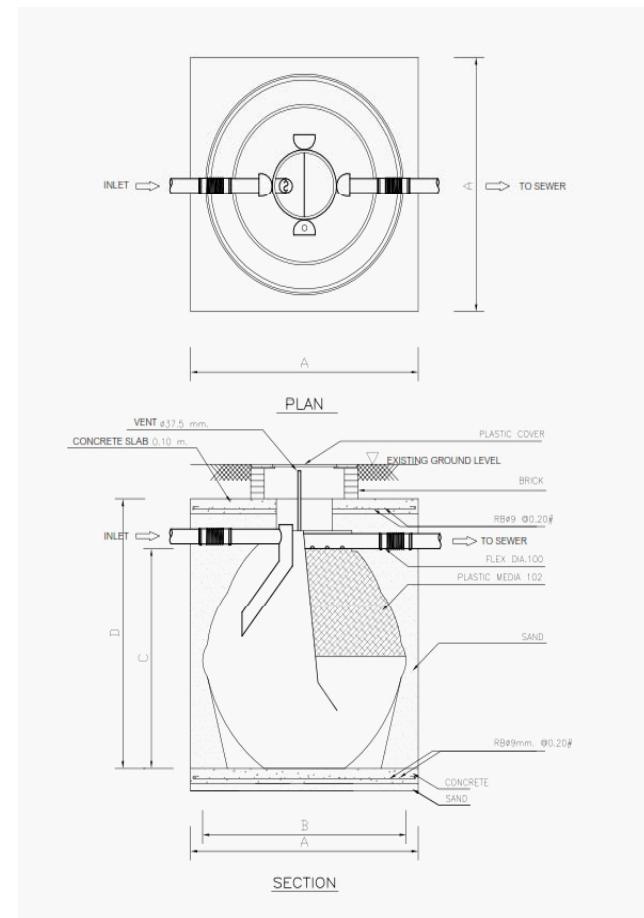
FS Sample
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Types of FS Containment



Rectangular Septic Tank



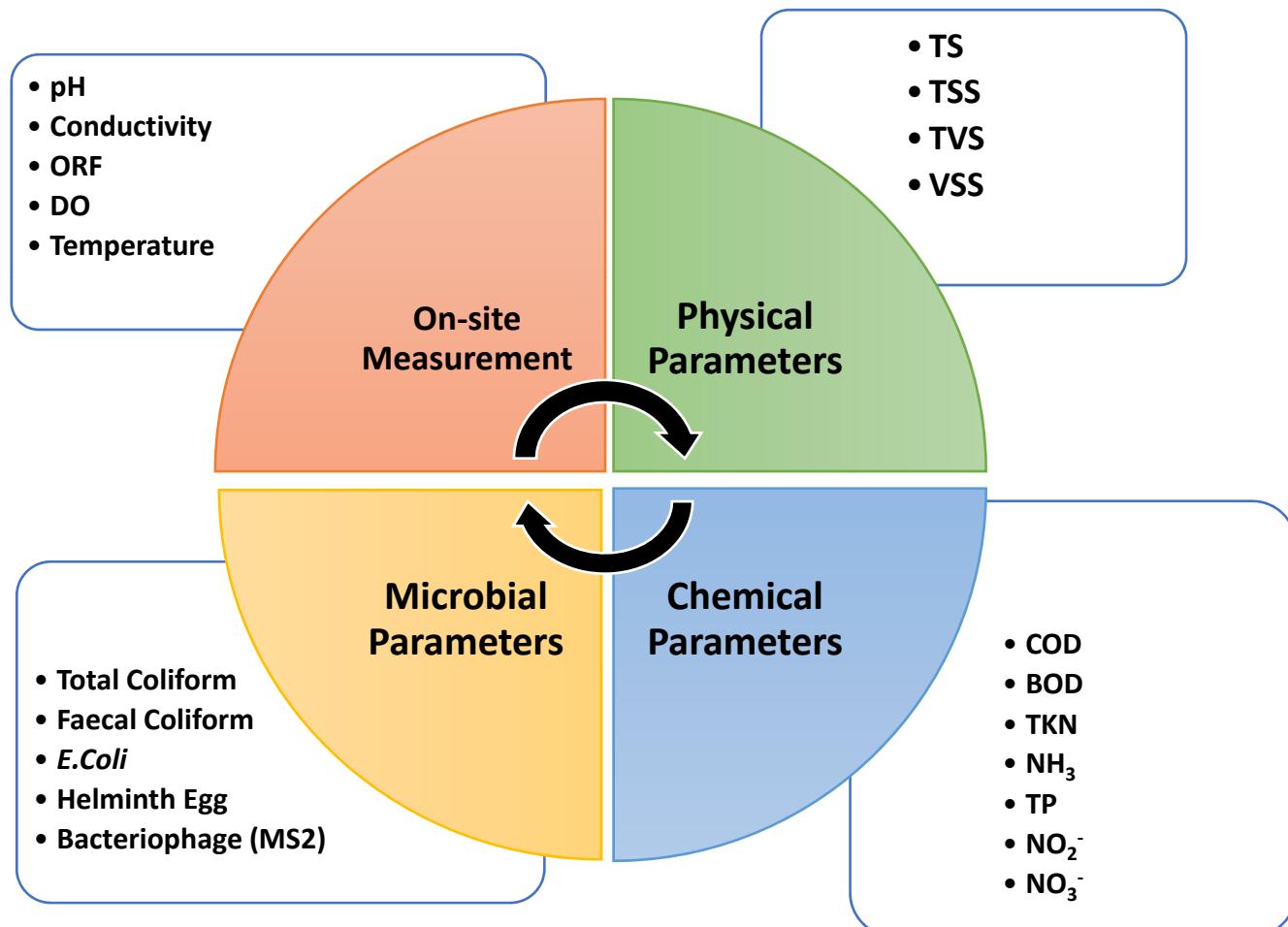
Commercial Plastic Septic Tank

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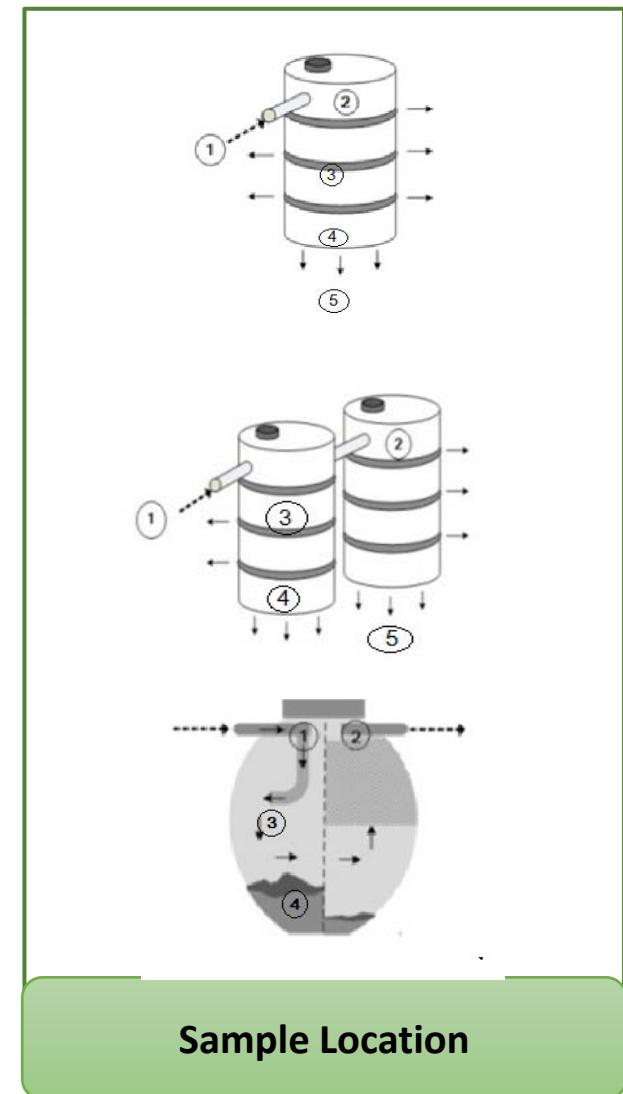
Analytical
Process



Personal Protective Equipment



Onsite Measurement



Sample Location

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Sampling Device: Influent



Sampling Device: Core content



Sample Device: Bottom sludge

FSM Field Experiences

Introduction



Sampling Device: Seepage

Analytical Parameters

NATS LAB	Type of Sample <input type="checkbox"/> Influent <input type="checkbox"/> Effluent <input type="checkbox"/> Others	NATS.LAB.F.5.B-05 LAB NO.
Required Parameters <input type="checkbox"/> TCOD <input type="checkbox"/> SCOD <input type="checkbox"/> TKN <input type="checkbox"/> NH ₃ -N <input type="checkbox"/> NO ₂ -N <input type="checkbox"/> TP <input type="checkbox"/> NO ₃ -N	NATS	
Fixed by H₂SO₄		
Condition of Preservation <input type="checkbox"/> > 0 °C <input type="checkbox"/> < 6 °C <input type="checkbox"/> Other	Receive by	
Date of Sampling	Receive by	
NATS LAB	Type of Sample <input type="checkbox"/> Influent <input type="checkbox"/> Effluent <input type="checkbox"/> Others	NATS.LAB.F.5.B-04 LAB NO.
Required Parameters <input type="checkbox"/> TS <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> TVS <input type="checkbox"/> VS	NATS	
No Preservation		
Condition of Preservation <input type="checkbox"/> > 0 °C <input type="checkbox"/> < 6 °C <input type="checkbox"/> Other	Receive by	
Receive Date	Receive by	
		

Sampling Labeling

FS Sample Collection



Sample Preservation

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Key Challenges

- Accessibility
- Improper siting
- Rubbish in tanks



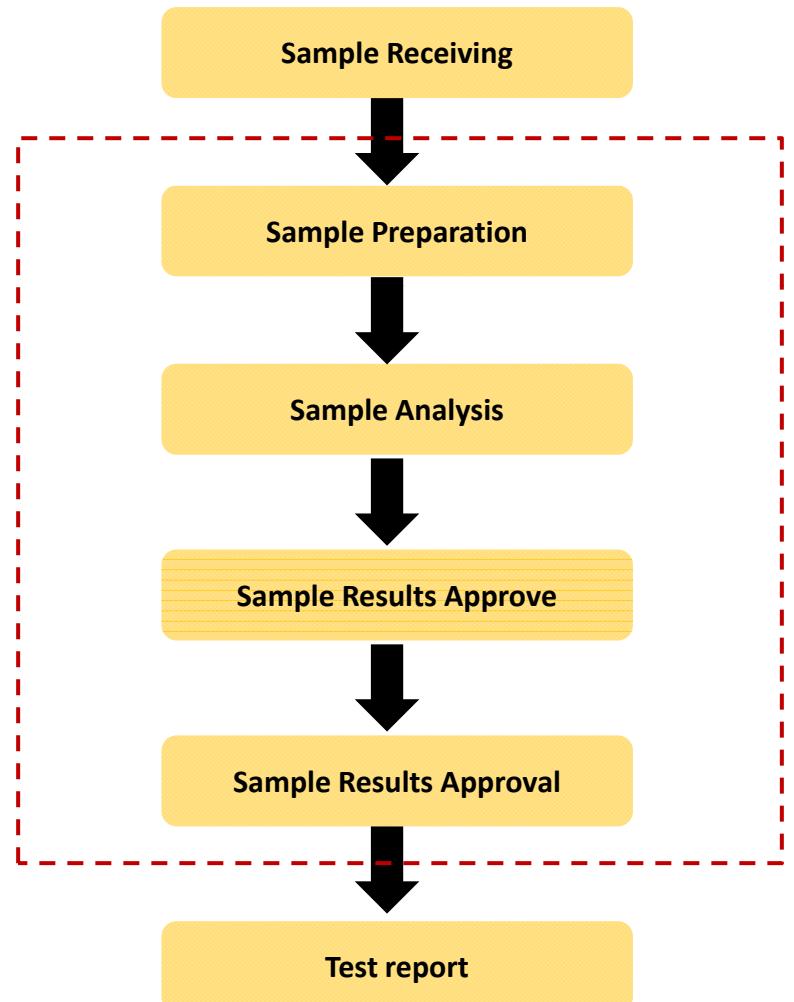
FSM Field Experiences

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Quality control

- Accuracy
- Precision



Methods for Faecal Sludge Analysis

Konstantina Velkushanova • Linda Strande • Mariska Ronteltap
Thammarat Koottatep • Damir Brdjanovic • Chris Buckley



May the **SAFE** Toilet be With You

THANK YOU

