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Small-scale sanitation in Egypt

10 POINTS to move forward

Egyptian-Swiss Research for Innovations in Sustainable Sanitation (ESRISS)

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Eawag: Swiss Research Institute for Aquatic Science and Technology



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ESRISS' scope & methodology



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Development a **wide-scale replicable model** for small-scale sanitation in the Nile Delta

WHAT WE DID:

1. Assess the **challenges and success factors** of past small-scale sanitation initiatives in Egypt
 - (i) **Interviews** with key-stakeholders of the sector
 - (ii) Thorough literature **review**;
 - (iii) **Selection** of the most prominent initiatives, **field visits**, assessment with **evaluation questionnaire** and analysis of **samples** at the National Research Centre (NRC)

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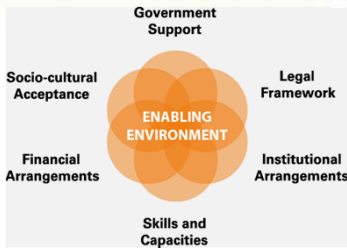


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ESRISS' scope & methodology

2. Integrated approach,
targeting the **enabling environment**




3. Development of a **data baseline** for rural areas

- ⇒ *Surveys and interviews in villages to assess **practices***
- ⇒ **Characterisation and quantification** of wastewater in ezbas
- ⇒ *Prediction model based on **material flow analysis (MFA)***

**... leading to lessons learnt and
recommendations**

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Lessons learnt

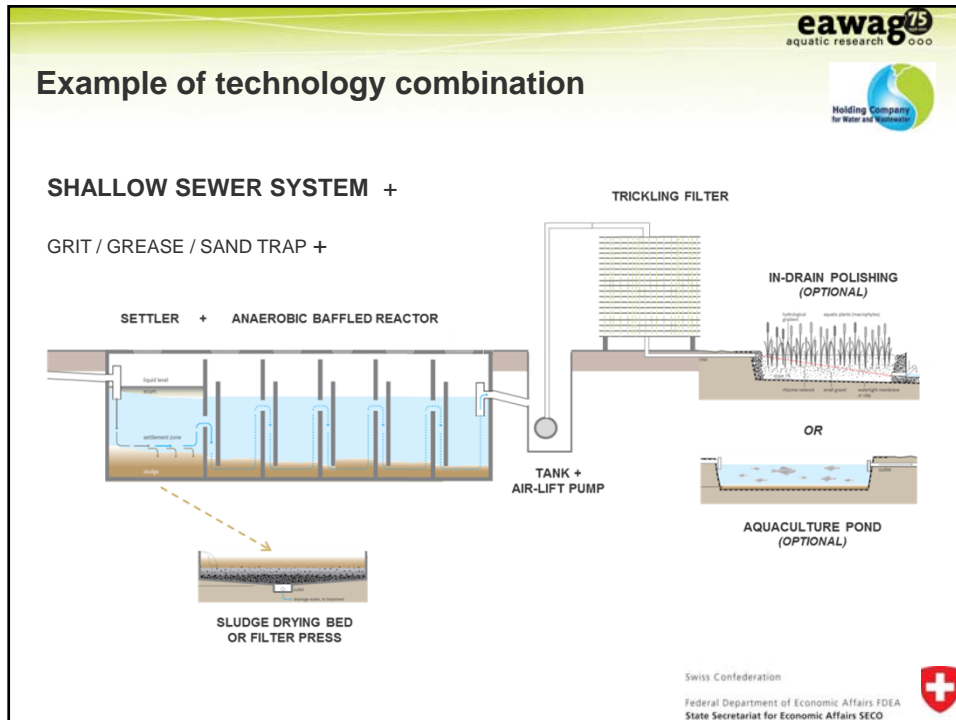
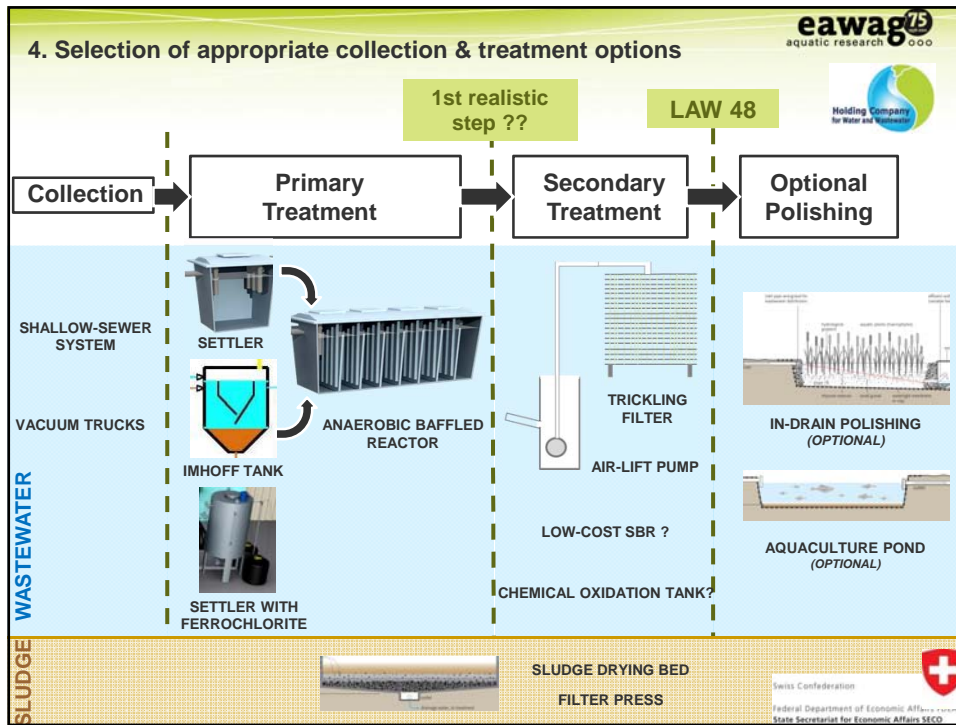
1. Development of a clear institutional strategy
 - ⇒ **Isolation** of existing initiatives
 - ⇒ Pivotal role of HCWW and Affiliates
 - ⇒ Advantages of collaborating with **MWRI**
 - ⇒ Ensure **full-cost recovery** mechanisms for small-scale systems
2. Standardisation of collection & treatment units
 - ⇒ Adopt a **mass-production** strategy **ECONOMIES OF SCALE !**
 - ⇒ Explore the concept of locally produced **prefabricated units**

Reduce time, increase quality, reduce costs, movable
3. Centralised O&M management under the leadership of HCWW
 - ⇒ Specialised unit in HCWW with sub-units in Affiliates or **sub-contracting to service provider (PPP)**


REACH THE CRITICAL MASS

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Lessons learnt

5. Adaptation of laws, regulations and Codes of Practice

- ⇒ Go for an **incremental approach**

6. Move beyond “business as usual”


- ⇒ Small-scale sanitation is a profitable business !
- ⇒ New market opportunity (construction and management)

7. Development of a data baseline


- ⇒ Wastewater quantities and characteristics according to settlement features

8. Insist on preliminary assessments of each village

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Lessons learnt


9. Improve project management cycle

- ⇒ Foster **innovation**
- ⇒ Foster an **integrated approach**
- ⇒ Improve **contract management**
- ⇒ **Monitoring** and evaluation must be strictly enforced

10. Transparency and dissemination of lessons learnt

- ⇒ **Analyse** and document performance
- ⇒ **Online library** on HCWW website

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Conclusion

**THERE IS NOT ONLY ONE SOLUTION !
THE CRITICAL ISSUE IS MANAGERIAL, NOT TECHNICAL**

- Solutions should be **tailor-made** and based on:

- 1. Planning**
- 2. Management scheme**
- 3. Economy of scale**
- 4. Life-cycle cost analysis**

*HOW MANY UNITS , WHO CAN FABRICATE IT,
WHO CAN MANAGE IT ?*

- Priority is to work on the **conditions** which will **enable** small-scale sanitation

OPPORTUNITY : ISSIP and its 30 villages

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