

Dry Toilet Projects *from backyard to indoors*

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Ode to Dry Toilet



A fervent plea to One and All
Whenever you feel Nature call

Make you deposit in the bin
Then put on scoop of
peat moss in

We hope and pray with
all our might
That everything came
out all right

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- Established 2002
- 250 members
15 companies
- Goal is to protect
waters and to
promote use of dry
toilets



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Is this the future?



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Activities

- DT2006 conference
- DT2003 conference
- Fairs and summer events
- DT publications
- Building demosites
- Practical research
 - CE-marking of DT



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What is DT-Technology?

New generation dry toilets

No odour

No handling of raw excreta

- nutrient cycling
- water saving
- water protection
- better health
- equality
- good management of the whole chain



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Why DT-technology?

Everyone has to use a toilet!

- Save water → water scarcity
- Save money
 - cheaper investment costs
 - low operating and maintenance costs
- Not depended on water supply, electricity or heating
 - terrorist proof sanitation

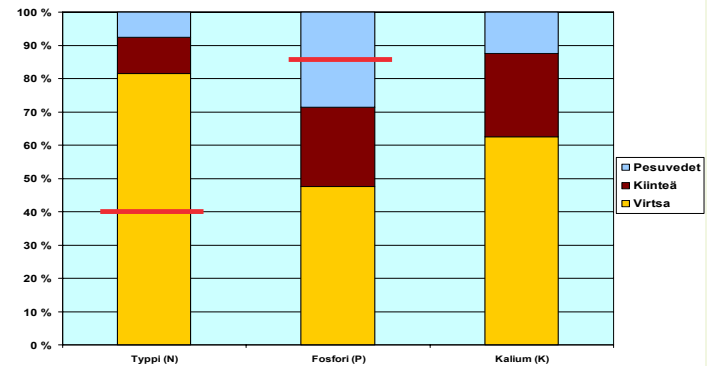


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Why DT-technology?

- Easier Waste Water management



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Why DT-technology?

- Controlled waste management
- Decentralised
→ Easy to install and manage by yourself
- Close the nutrient cycle loop
→ save waters from pollution



Composted feces as growing medium

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Nutrient cycle



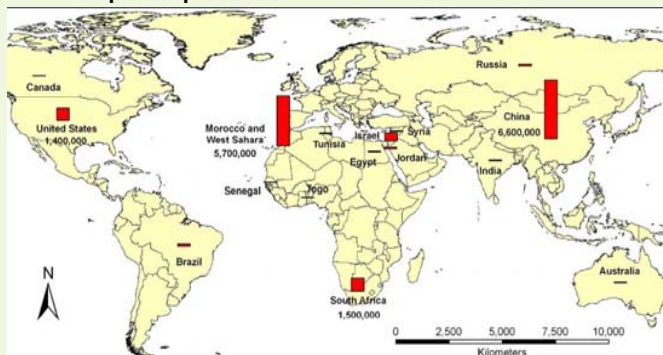
Nutrients in the "right composition"

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Focus on Phosphorus

World phosphorus reserves



Yearly production ~0,5 kg / person

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Start with "DT to EU" -Project

- Leader+ funding
- Aim to
 1. Use of new know-how and new technologies
 2. Improving the quality of life in rural areas
- Support development and investment



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Content in short

Start with preliminary survey project → 5 EU countries

- Finnish part
 - 10 demo sites of indoor toilets
 - Dry Toilet maintenance and Output management Guide
- EU part
 - Demosites of Finnish DT's
 - Specific Guides for each country



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Estonia



- Pop. 1,3 M
- 58 % in cities
- water supply for 77 %
- Start with 3 demos and Guide

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Estonia: Background

- Smelly pits
- Groundwater problems



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Estonia: Buildings

- No use for the sludge
- Indoor dry toilets old fashioned pits



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Estonia: buildings



- Colorful buildings



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DT Guide to Estonia

- Legislation review
 - No direct regulations about DT's
 - EU directives
- Introduction of DT models
- Planning instructions
- Maintenance instructions\ Composting basics



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Estonia: Kinksi Toilet

- Village festival site
- Swing, bonfire, swimming, horses, volleyball
- Church near
- Toilet model Green Toilet 330
 - Changing capacity
 - Easy to maintain



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KINKSI KEMPS



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Estonia: Matsalu National park

- Kiideva harbour
- Composting toilet



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Estonia: indoor toilet

- Ekolet VS model
- Electrical fan



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Latvia

- Pop. 2,3 M
- 68 % in cities
- Less money
- 10 years of env. work
- 90 % of the lakes are eutrophicated
- Pit Latrines still in Riga



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Latvia

- The same concept
- Start building this autumn
- Finished by Christmas
- Guide in progress



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Embute

- Ancient wooden castle site
- Fireplace, information board, warehouse, info centre nearby



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Embute

- Two toilets
- Ekolet UV models



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Indoor? Kemeru? Daugavpils?

- Kemeru
 - Marsh area close to Riga
- Daugavpils/Pilskane
 - 2nd largest city
 - Continental climate
 - Attitude change
- Indoor toilet at Ivars
 - Extension to sauna building



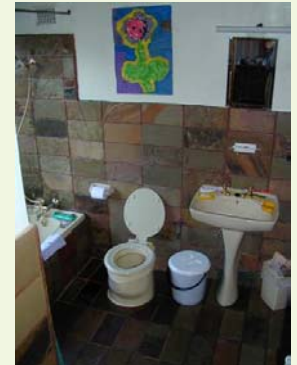
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Spain

Spain

- Pop. 40 M,
- 97 % connected
- Guide in Spanish
- Water scarcity the motive
- Little interest in building



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From Spain to Portugal



Portugal

- Next Step??
- More interest in water saving
- Guide and demosites in planning

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General about international projects

- They take time!
 - Long term development
- Good partners are the key in success
- Change to learn
- Differences inside EU



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DT's in the world

- Sweden, Germany, Norway, Japan
- Urine diversion systems
- Research
- Architecture
- Legislation



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GTZ office in Germany

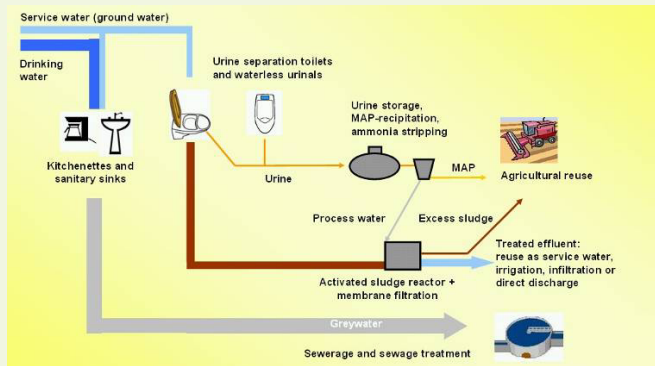
- 300 employees
- 56 UD toilets
- 25 waterless urinals



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GTZ office in Germany



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Sweden

- Several buildings with UD
E.g. Gebers 32 flats in old hospital

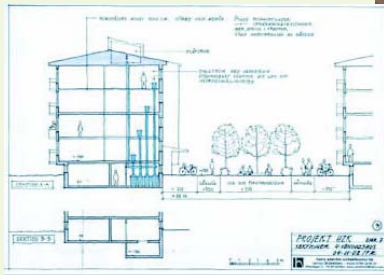


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Inner Mongolia, Erdos

- 824 households



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More information

- www.huussi.net
- EU Leader+
http://ec.europa.eu/agriculture/rur/leaderplus/index_en.htm
- www.gtz.de
- www.ecosanres.org
- projektit@huussi.net



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