

## Day 1 - Tuesday Nov 2

### Chat Conversation

#### **The Places We Go: Implementation Projects Around the World**

*Moderator: Abe*

#### *Presenters*

**Julien Saludas, TOOPI**

#### *Innovation and deployment program*

- **From Kai Udert:** Could you please explain why there is not waste? The ratio of nutrients in urine most probably does not fit the ratio of nutrients in the lactobacilli.
- **From Hayley J. Smith (PHLUSH):** Do you or others consider this a urine-based fertilizer or only that urine was used in the process of creating the product?
- **From Shawn Shafner, POOP Project:** I would love to know more about the context in France that has made this possible - what is the regulatory and / or social infrastructures that have enabled you to do urine collection in gas stations and schools? Also, how big is the project now? How many collection sites, how many gallons, etc.

**Jess Laporte, SOIL**

#### *Large-scale production of urine diverters for a household*

- **From Mathew Lippincott:** The “nut ridge,” splash-back on users, and urine “escape” over the front edge were the major issues to address
- **From Prithvi Simha:** Similar to the progress SOIL has made with the diverter design, are there any promising options that you are/have been testing for treating the urine that is currently discarded?
- **From Samuel Getahun:** Do people have to sit for effective urine separation?

**Sybrand Metz, DESAH**

#### *Decentralized Wastewater Treatment for a Green Future*

- **From Ole Ersson:** Is all urine mixed with feces in a vacuum toilet? Is there any possibility of separation of urine from feces?

**Kim Nace**

#### *Innovative technologies for capturing nutrients from source separated urine or blackwater*

- **From Kai:** how many people is the system designed for?
- **From Michel Reichman:** Is your stakeholder analysis available somewhere or are you thinking of publishing it?

**Kevin Orner**

#### *Opportunities and Challenges of Installing a Urine-Diverting Toilet at the University of California, Berkeley*

- **From Carol McCreary:** Is the lack of regulations a barrier or a pathway? Challenge or opportunity?
  - **Response from Kevin:** Both. I view the lack of regulations as a challenge because regulators or facilities may want to see regulations before granting approval. Lack of regulations are an opportunity because this community can help write the regulations.

- **From Kai Udert:** Did the costs also include the piping and the collection tank?
  - **Response from Kevin:** The costs I had shown on the screen were just for installation. The piping and collection tank was not included, but I believe it was under \$1,000.
- **From Shawn Shafner, POOP Project:** Thanks for your transparency Kevin. So important to discuss challenges as well as successes.
- **From Rebecca Nelson:** Thanks, Kevin. Sorry if i should have caught it, but what was the cost of the Laufen unit itself?
- **From Carol Steinfeld:** Breaking into walls and existing plumbing is a big deal. There are regulatory pathways in neighboring California cities. I'll write to you directly about a way to do it based on two other installs in Cali. It's absolutely not easy, no! Good for you for attempting it there. That's good info for others.
  - **Response from Kevin:** Yes, that would be great. My email is kevin.ornier@mail.wvu.edu.

***Ole Ersson***

***Urine diversion and utilization in a populous urban setting***

- **From Kai Udert:** did you consider "drip fertigation"?
  - **From Robert Cossette:** The solution is to use Solar-Dripper ;-)
  - **From Renaud de Looze:** No problem of struvite if urine is diluted Or if you have soft water. Foliar spray is okay to give a kick. u can use foliar spray for lawn for example
    - **From Ole Ersson:** Thanks to everyone who suggested considering urine drip irrigation for the Kailash project. We'll check it out!
  - **From Hilda Maingay:** Abe, we would love to hear about your urine drip irrigation project
- **From Merilee Karr PHLUSH:** Ole, is that a WaterRight hose?
- **From Tatiana Schreiber:** When you use urine fertilizer on the flowers, where it looked like primarily as a foliar spray, have you seen significant plant response? How does it affect bloom, for example?
- **From Ole Ersson:** Here is a link to my slides if anyone is interested:  
<https://docs.google.com/presentation/d/1avBxp49XLtaegpas-PiBdBuniGMO3B1dCo0vRS4U3s/edit?usp=sharing>