Centre for **Sustainable & Circular** Technologies

Wastewater Disease Tracking

Using toilets to track our health

Imagine that we wanted to test the health of every person in the country on a daily basis - nearly seventy million people! That would be a lot of testing - twenty-five billion samples a year.

We currently wait until people get symptoms and then test them. We don't generally test healthy people for disease. This approach makes it a lot more cost effective and practical to test for diseases. What if there was a different way of doing it?

Testing the water that goes from your toilet into the sewers means that we might be able to measure the average health of a large number of people very quickly. In theory, we can detect a disease before someone shows any symptoms.

Watch the video from the CSCT PhD student James Boxall-Clasby to find out more.

Reflective Questions

What do you think about using the things that we flush down our toilets to measure people's health?

Is it amazing, or disgusting?

Do you think that it is a good idea or not?

What do you think some of the challenges of testing waste water are? (some answer below)

Answers

- Because waste water contains disease, we need to be very careful about sampling and measuring it to make sure that we don't infect the people doing the testing.
- The samples are very diluted. When it rains, there is a lot of water going through the sewers.
- We need to separate the chemicals in wastewater from the disease cells for the testing to work. This is very difficult.