

SENSE – research design

Version: August 5th, 2020

Set up

Basic idea: learning about social acceptance and attitude towards new sanitation techniques by means of (i) an online questionnaire for a first general picture and analysis of correlations followed by (ii) follow-up interviews for deeper meaning and topics that are less suitable (e.g. social desirability) for a quantitative questionnaire, including questions about behavioural change.

Focus groups are not considered suitable because they (i) are difficult to moderate by inexperienced researchers/local partners, and (ii) are less suitable for systematic comparative analysis.

Optional: Exploratory interview

- Project partners are asked to conduct approx. 3 exploratory interviews with residents where possible.
- These interviews will be elaborated and translated by the partners.
- The interviews contribute to the improvement of the survey and follow-up interview questions (research protocol).
- Diederik designs the questions for these interviews.

Survey

- In all sites we work with one survey, adapted to the name used in the cases.
- KWR designs the questionnaire in NL + English in Word, partners translate this
- KWR puts the translations into SurveyMonkey
- Outsource the invitation for the online questionnaire to the local partners, but support them by example e-mail and letter.
 - Preferred route: (personal) email to resident with link to online questionnaire
 - Alternative route I: (personal) letter to resident with link + QR code to online questionnaire
 - Alternative route II: (also possible in combination with the preferred route and alternative route1) pre-announcement/stimulation or invitation to include participation survey in regular mailing to residents.
 - Alternative route III: (also possible in combination with the preferred route and alternative route1) place a link + QR code to online questionnaire at communication points in the neighbourhood (bulletin board, information screens, etc.)
- For each location, KWR will come up with a recommendation for the number of invitations/requested respondents.
- The questionnaire and interviews are aimed at residents of the neighbourhoods in question.
- The questionnaire is aimed at residents of 18 years and older.
- Comparative quantitative analysis by KWR
- Raw data are fed back to each site for possible additional analyses.
- Questionnaire and follow-up interviews will be tested at one or more locations.

Follow-up interviews (separate file)

- In all sites we work with one identical interview protocol
- It is an interview with semi-open questions
- KWR designs the questionnaire in NL + English in Word, partners translate it
- Local partners take care of the interviews and are asked to record and summarise them per question.
- KWR designs an answer format in Excel, in which the partners are asked to summarise the respondent's answer per question and/or to include a quote. Local partners are asked to translate these answers into English afterwards, and to share them with KWR.
- Invitation for follow-up interview is integrated in the survey
- KWR advises to use a small incentive to entice people to participate in follow-up interviews, e.g. a gift voucher.
- For each site, KWR will provide advice on the number of respondents required + selection criteria if more people are willing to take part in an interview than necessary.
- Comparative qualitative analysis by KWR, possibly case-specific analysis by local partners
- After the first round of interviews, the answer format will be evaluated and, if necessary, improved.

Survey questionnaire SENSE

Welcome,

Thank you for your interest in participating in this study. Your contribution gives us valuable insight in how these innovative water techniques are being experienced by users. It also gives you the opportunity to express any positive and negative experiences you have with these techniques and contribute to improving them for future users.

This survey is part of the SENSE project, which aims to provide a Social Evaluation of New Sanitation Experiments in Germany, Sweden, Belgium and The Netherlands. For further information please go to the website [provide link].

The questions in this survey are about your perception and experiences with the innovative sanitary techniques that have been applied in and around your home, such as in the toilet, shower or sink. Therefore, there are no right or wrong answers. The survey is conducted by [name of local partner] in cooperation with research institute KWR.

All data will be handled in accordance with the General Data Protection Regulation 2018 (GDPR), which ensures that all data which is collected as part of this research will be anonymised and stored confidentially. Participation is entirely voluntary and you are free to withdraw at any point up until the completion of the survey by simply exiting the browser page. Once the survey has been completed we will be unable to remove your data from the pool. Electronic data will be stored in a secure data file on a password protected computer for 5 years. The survey data will be analysed and written up as academic research and as part of Sense project deliverables.

The survey will take approximately 15 minutes to complete.

Clicking the 'next' button indicates you agree to take part in this research and have read and are satisfied with the information provided above.

Q1 1 In which district do you live?

- Schoonschip | Amsterdam
- Cityplot (Buiksloterham) | Amsterdam

- H+ | Helsingborg
- De Nieuwe Dokken | Ghent
- Jenfelder Au | Hamburg
- Superlocal | Kerkrade

2 What type of house do you live in? [specify answers by location, intended to check residents' awareness] [in some cases it may be necessary to include questions such as what block, what floor, which street and so on]

[Schoonschip | Amsterdam]

- Vraag niet nodig aangezien het allemaal woonboten zijn en koop

[Cityplot (Buiksloterham) | Amsterdam]

In what type of housing do you live?

- Huurwoning
- Koopwoning
- Sociale huurwoning
- Hotel

[H+ | Helsingborg]

- Rental property
- Owner's house

[De Nieuwe Dokken | Ghent]

- Huurwoning Rental property
- Koopwoning Owner's house
- Sociale huurwoning Social housing

[Jenfelder Au | Hamburg]

- Rental property
- Owner's house
- Social housing

[Superlocal | Kerkrade]

- Appartement Jonkerbergstraat
- Fenikswoning
- Eengezinswoning

3 How long have you lived in your current home?

0-2 months

3-6 months

6-12 months

1-2 years

Over 2 years

4 How would you grade the living pleasure in your current house? (1-10)

Q2 In [name district] vacuum toilets are used. These toilets use negative pressure and a small amount of water. [insert picture]

1 How many vacuum toilets are installed in your house?

2 What is your overall satisfaction with your vacuum toilet expressed in a score between 1 and 10, where 1 stands for very bad and 10 for excellent?

2 Which description best suits your feeling when you show your vacuum toilet to visitors for the first time? Choose one

Pride

Enthusiasm

Uncomfortable

Awkward

Neutral

I don't have visitors

3 Do you like the vacuum toilet as expected before you came to live in this house?

No, the vacuum toilet is less pleasing in practice

No, the vacuum toilet is more pleasing in practice

Yes, as expected

I had no expectations

3.1 [For those who answer 'no'] You indicate that the vacuum toilet is [more/less] pleasing in practice than previously expected. Can you explain this? [question is not mandatory]

4 Compared to a normal toilet (flush toilet), how do you experience your current vacuum toilet on the following aspects?

Base this exclusively on your own experience (i.e. regardless of any dissenting opinion of housemates or visitors).

Hygiene

User-friendly

Easy to clean

Safe for my health

Safe in use

Malfunctions

Costs

Smell

Noise

Sustainability

Appearance

++

+

+/-

-

--

5 Compared to a normal toilet (flush toilet), how do you experience your current vacuum toilet in general?

++

+

+/-

-

--

6 On a scale of 1 (very unlikely) to 10 (very likely), how likely is it that you would recommend a vacuum toilet to friends/family/colleagues?

7 Since you have been using the vacuum toilet, how often have you had a malfunction? For example, loss of pressure or blockage.

Never

1 time

2-5 times

6-10 times

more than 10 times

7.1 [if it is indicated that people have experienced malfunction] To what extent is the frequency of malfunction acceptable to you?

fully acceptable

acceptable

not acceptable

not at all acceptable

8 Since you have been using the vacuum toilet, how often have you performed maintenance?

Never

1 time

2-5 times

6-10 times

more than 10 times

8.1 [if it is indicated that had maintenance] To what extent is the frequency of maintenance acceptable to you?

fully acceptable

acceptable

not acceptable

not at all acceptable

9 Do you have any other comments about your experiences and/or the use of your vacuum toilet?

Q3 In [name district] toilets are used that are flushed with rainwater. [insert photo]

1 What is your overall satisfaction with your rain water toilet expressed in a score between 1 and 10, where 1 stands for very bad and 10 for excellent?

2 Which description best suits your feeling when you show your rain water toilet to visitors for the first time? Choose one

- Pride
- Enthusiasm
- Uncomfortable
- Awkward
- Neutral
- I don't have visitors

3 Do you like the rain water toilet as expected before you came to live in this house?

- No, the rain water toilet is less pleasing in practice
- No, the rain water toilet is more pleasing in practice
- Yes, as expected
- I had no expectations

3 [For those who answer 'no'] You indicate that the rain water toilet is [more/less] pleasing in practice than previously expected. Can you explain this? [question is not mandatory]

4 Compared to a normal toilet (flush toilet), how do you experience your current rain water toilet on the following aspects?

Base this exclusively on your own experience (i.e. regardless of any dissenting opinion of housemates or visitors).

- Hygiene
- User-friendly

- Easy to clean
- Safe for my health
- Safe in use
- Malfunctions
- Costs
- Smell
- Noise
- Sustainability
- Appearance

- ++
- +
- +/-
-
-

5 Compared to a normal toilet (flush toilet), how do you experience your current rain water toilet in general?

- ++
- +
- +/-
-
-

6 On a scale of 1 (very unlikely) to 10 (very likely), how likely is it that you would recommend a rain water toilet to friends/family/colleagues?

7 Since you have been using the rain water toilet, how often have you had a malfunction? For example, loss of pressure or blockage.

- Never
- 1 time
- 2-5 times

6-10 times
more than 10 times

7.1 [if it is indicated that people have experienced malfunction] To what extent is the frequency of malfunction acceptable to you?

fully acceptable
acceptable
not acceptable
not at all acceptable

8 Since you have been using the rain water toilet, how often have you performed maintenance?

Never
1 time
2-5 times
6-10 times
more than 10 times

8.1 [if it is indicated that had maintenance] To what extent is the frequency of maintenance acceptable to you?

fully acceptable
acceptable
not acceptable
not at all acceptable

9 Do you have any other comments about your experiences and/or the use of your rainwater toilet?

Q4 In [name district] toilets are used that are flushed with grey water. Grey water is a collective name for slightly contaminated, domestic wastewater from, for example, shower, washing machine and kitchen (and not the toilet) [insert photo].

1 What is your overall satisfaction with your grey water toilet expressed in a score between 1 and 10, where 1 stands for very bad and 10 for excellent?

2 Which description best suits your feeling when you show your grey water toilet to visitors for the first time? Choose one

Pride

Enthusiasm

Uncomfortable

Awkward

Neutral

I don't have visitors

3 Do you like the grey water toilet as expected before you came to live in this house?

No, the grey water toilet is less pleasing in practice

No, the grey water toilet is more pleasing in practice

Yes, as expected

I had no expectations

3 [For those who answer 'no'] You indicate that the grey water toilet is [more/less] pleasing in practice than previously expected. Can you explain this? [question is not mandatory]

4 Compared to a normal toilet (flush toilet), how do you experience your current grey water toilet on the following aspects?

Base this exclusively on your own experience (i.e. regardless of any dissenting opinion of housemates or visitors).

Hygiene

User-friendly

Easy to clean

Safe for my health

Safe in use

Malfunctions

Costs

Smell
Noise
Sustainability
Appearance

- ++
- +
- +/-
-
-

5 Compared to a normal toilet (flush toilet), how do you experience your current grey water toilet in general?

- ++
- +
- +/-
-
-

6 On a scale of 1 (very unlikely) to 10 (very likely), how likely is it that you would recommend a grey water toilet to friends/family/colleagues?

7 Since you have been using the grey water toilet, how often have you had a malfunction? For example, loss of pressure or blockage.

- Never
- 1 time
- 2-5 times
- 6-10 times
- more than 10 times

7.1 [if it is indicated that people have experienced malfunction] To what extent is the frequency of malfunction acceptable to you?

- fully acceptable
- acceptable
- not acceptable
- not at all acceptable

8 Since you have been using the rain water toilet, how often have you performed maintenance?

- Never
- 1 time
- 2-5 times
- 6-10 times
- more than 10 times

8.1 [if it is indicated that had maintenance] To what extent is the frequency of maintenance acceptable to you?

- fully acceptable
- acceptable
- not acceptable
- not at all acceptable

9 Do you have any other comments about your experiences and/or the use of your grey water toilet?

Q5 A recirculation shower filters the shower water and reuses it directly in the shower. [insert photo]

1 What is your overall satisfaction with your recirculation shower expressed in a score between 1 and 10, where 1 stands for very bad and 10 for excellent?

2 Do you like the recirculation shower as expected before you came to live in this house?

No, the recirculation shower is less pleasing in practice

No, the recirculation shower is more pleasing in practice

Yes, as expected

I had no expectations

2.1 [For those who answer 'no'] You indicate that the recirculation shower is [more/less] pleasing in practice than previously expected. Can you explain this? [question is not mandatory]

3 Compared to a normal shower, how do you experience your current recirculation shower on the following aspects?

Base this exclusively on your own experience (i.e. regardless of any dissenting opinion of housemates or visitors).

Hygiene

User-friendly

Easy to clean

Safe for my health

Safe in use

Malfunctions

Costs

Smell

Noise

Sustainability

Appearance

++

+

+/-

-

--

4 Compared to a normal shower, how do you experience your current recirculation shower in general?

++

+

+/-

-

o --

5 On a scale of 1 (very unlikely) to 10 (very likely), how likely is it that you would recommend a recirculation shower to friends/family/colleagues?

6 Since you have been using the recirculation shower, how often have you had maintenance? For example, cleaning or changing filters.

Never

1 time

2-5 times

6-10 times

more than 10 times

6 [if it is indicated that people have experienced malfunction] To what extent is the frequency of maintenance acceptable to you?

fully acceptable

acceptable

not acceptable

not at all acceptable

7 Do you have any other comments about your experiences and/or the use of your recirculation shower?

Q6 Food waste grinders process fruit and vegetable waste with water and jointly flush it away through the vacuum sewer. Food grinders are often installed in the sink in the kitchen, or in a shared location such as the gallery in a flat. [insert photo]

1 How often do you use the food waste grinder?

Multiple times per day/every time I have food waste

Once per day (stored amount)

Once every 2-4 days (larger stored amount)

Hardly ever

1.1 [if the previous question was answered with hardly ever] What are the main reasons that you hardly ever use the food waste grinder? Multiple answers possible

I find it uncomfortable

I find it scary

I find it impractical

I find it not hygienic

The food waste grinder is not conveniently located

I have my own compost heap

Other

2 How did you handle food waste before you had access to the food grinder?

When you used multiple options, please select the one you used most commonly.

Separate bio waste container

Compost heap

With regular waste

3 Compared [answer Q7.2] how do you experience your current food waste grinder on the following aspects?

Base this exclusively on your own experience (i.e. regardless of any dissenting opinion of housemates or visitors).

Hygiene

User-friendly

Easy to clean

Safe for my health

Safe in use

Malfunctions

Costs

Smell

Noise

Sustainability

Appearance

o ++

- +
- +/-
-
-

4 Compared [answer Q7.2] how do you experience your current food grinder in general?

- ++
- +
- +/-
-
-

5 Do you like the food waste grinder as expected before you came to live in this house?

No, the food waste grinder is less pleasing in practice

No, the food waste grinder is more pleasing in practice

Yes, as expected

I had no expectations

6 [For those who answer 'no'] You indicate that the shared food waste grinder works [better/worse] in practice than previously expected. Can you explain this? [question is not mandatory]

7 On a scale of 1 (very unlikely) to 10 (very likely), how likely is it that you would recommend the use of a food waste grinder to friends/family/colleagues?

8 [only if respondents to Q7.3 indicate to use the food waste grinder] Since you can use the food waste grinder, how often have you been unable to use the food waste grinder due to a malfunction?

Never

1 time

2-5 times

6-10 times

more than 10 times

9 [if it is indicated that people have experienced malfunction] To what extent is the frequency of maintenance acceptable to you?

fully acceptable

acceptable

not acceptable

not at all acceptable

10 Do you have any other comments about your experiences and/or the use of your recirculation shower?

Q7 same as Q6, but for individual food waste grinders

Q8 Information

1 Is the information you received sufficient for you regarding..
The use and operation of these systems in daily use
The concepts and general idea

I am not interested in this information

Yes, there was/is sufficient information available

No, there was/is not sufficient information available

2 [If Q8.1 indicated that not enough information was available/wanted more information] You indicate that there was [not enough information available/you would have liked more information]. Can you indicate what information you think was missing and how you would have liked to receive it? [question not compulsory].

In an information evening

Newsletter

Through the broker/landlord/contractor

Otherwise, namely...

3 Have you ever taken part in an informative meeting, workshop or other kind of activity in which the water system was central?

Yes, informative meeting, no workshop

Yes, workshop, no informative meeting

Yes, both

No, neither

Q9 Attitude

This question is about the selection process before you moved into your current home.

1 Would you have moved into your current home if sustainable sanitation techniques had not been used?

Yes

No

Not applicable/ I had no choice

The following statements are about your experiences at this time. To what extent do you agree with the statements below?

2 I am proud to live in a neighbourhood where sustainable water techniques are applied.

Fully agree

Agree

Neutral

Disagree

Fully disagree

3 The innovative, sustainable water techniques have been a reason for me to come and live in this neighbourhood.

Fully agree

Agree

Neutral

Disagree

Fully disagree

4 I would have preferred to have traditional (“normal”) sanitation techniques in my house.

- Fully agree
- Agree
- Neutral
- Disagree
- Fully disagree

5 The techniques and installations that are visible in the public space in my neighbourhood I experience positively

- Fully agree
- Agree
- Neutral
- Disagree
- Fully disagree
- Don't know, no opinion

6 [Ask this question only when collective food waste grinders are present] The collective food waste grinders contribute to more contact with my neighbours.

- Fully agree
- Agree
- Neutral
- Disagree
- Fully disagree
- Don't know, no opinion

Q10 Concluding questions

1 What is your gender?

Male

Female
Diverse
Prefer not to answer

2 what is your age?

18-24
25-34
35-44
45-54
55-64
65 or above

3 Including yourself, how many people live in your household?

4 [if more than 1]Do you have children living at home?

No
Yes, with the youngest being 11 years or under
Yes, with the youngest being 12 years or above

4 What is your highest level of education?

Fill in the categories relevant for your country

Q11 Institutional trust

The following questions are intended for the researchers to gain more insight into the respondents. Like your other answers, they are anonymized and not used for commercial purposes.

1 On a scale of 1 to 10, how much confidence do you have in the following institutions in [country]? A 1 stands for no trust at all, and a 10 stands for full trust.

Newspaper/TV/Radio

Judiciary
Water Authorities
Water Utilities
Science
Project developer of my district
Housing corporation of my district
Business
Municipality
National Government

Answer categories: 1-10 + don't know

Q12 Environmental belief system (non-obligatory question)

To what extent do you agree with the statements below?

1. I think the difference between rich and poor has become too big
2. Enjoying life is very important to me, sustainability comes second
3. I feel personally responsible for the protection of nature and the environment
4. For me, convenience and no fuss is important
5. I consider it necessary to adapt my lifestyle to combat climate change
6. I think material possessions and money are very important
7. I think it's a good idea if the government asks citizens to live sustainably
8. I'm worried about climate change
9. I think poor people should be helped to make their homes more sustainable

- Fully agree

- Agree

- Neutral

- Disagree

- Fully disagree

Q13 1 Are you willing to discuss the topics from this questionnaire with the researchers? This is a telephone interview lasting half an hour. In this interview we would like to discuss your experiences with the innovations in and around your home and the communication about them. As a thank you,

you will receive an [incentive, e.g. gift voucher of 15 euros] at the end of the interview.

Yes

No

- 2 If yes] Thank you for your willingness to talk to us about the topics in the questionnaire. From all respondents we will select a number of people to call. So it is not certain that we will call you.

Please fill on your name, email address and the telephone number that we can contact. Please note: by filling in your name, the questionnaire is no longer anonymous. Of course, any form of reporting will remain anonymous and we will treat your answers confidentially.

Your name:

Email address:

Telephone number:

The End

Thank you very much for filling in this questionnaire. If you have any more comments, you can leave them below. With the button 'Next' you can close the questionnaire.

[insert text box]

After completing this survey, if are you curious about the other European neighbourhoods participating in this survey, visit the websites below for more information: