

Work package 3

Case study results

Andrijana Horvat
Caroline Modin Christensen

04.06.2020.


CORE organic



Presentation outline

- Report from an online case study workshop
 - Technical meeting aspects
 - Assessment framework usability
 - Future prospects

An online case study

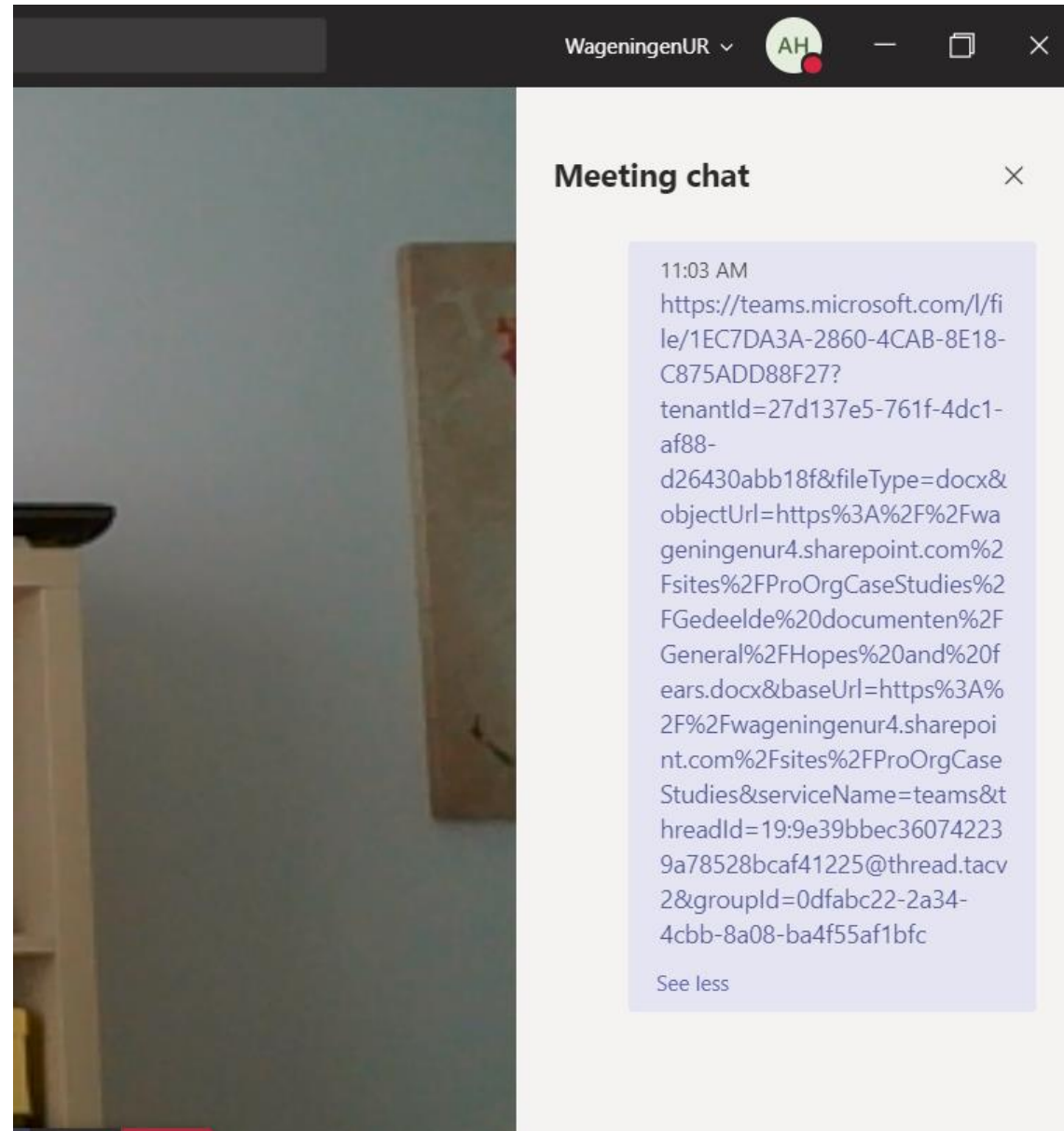
- **Meeting in the middle of May**
 - A large Danish dairy company
 - 11 people in total
 - Company (8): sensory and consumer science, product and process design (2), food ingredients R&D (2), nutrition specialist, food chemistry, organic certification)
 - ProOrg Team (3): Andrijana Horvat (workshop lead), Caroline Modin Christensen (technical assistance), Lilia Ahrnè
- **Tools used**
 - Microsoft teams (screen sharing, recording)
 - Company team working together in MS Teams online word and excel files (with screen sharing)
 - Google Documents as backup for online MS Teams files

Workshop program

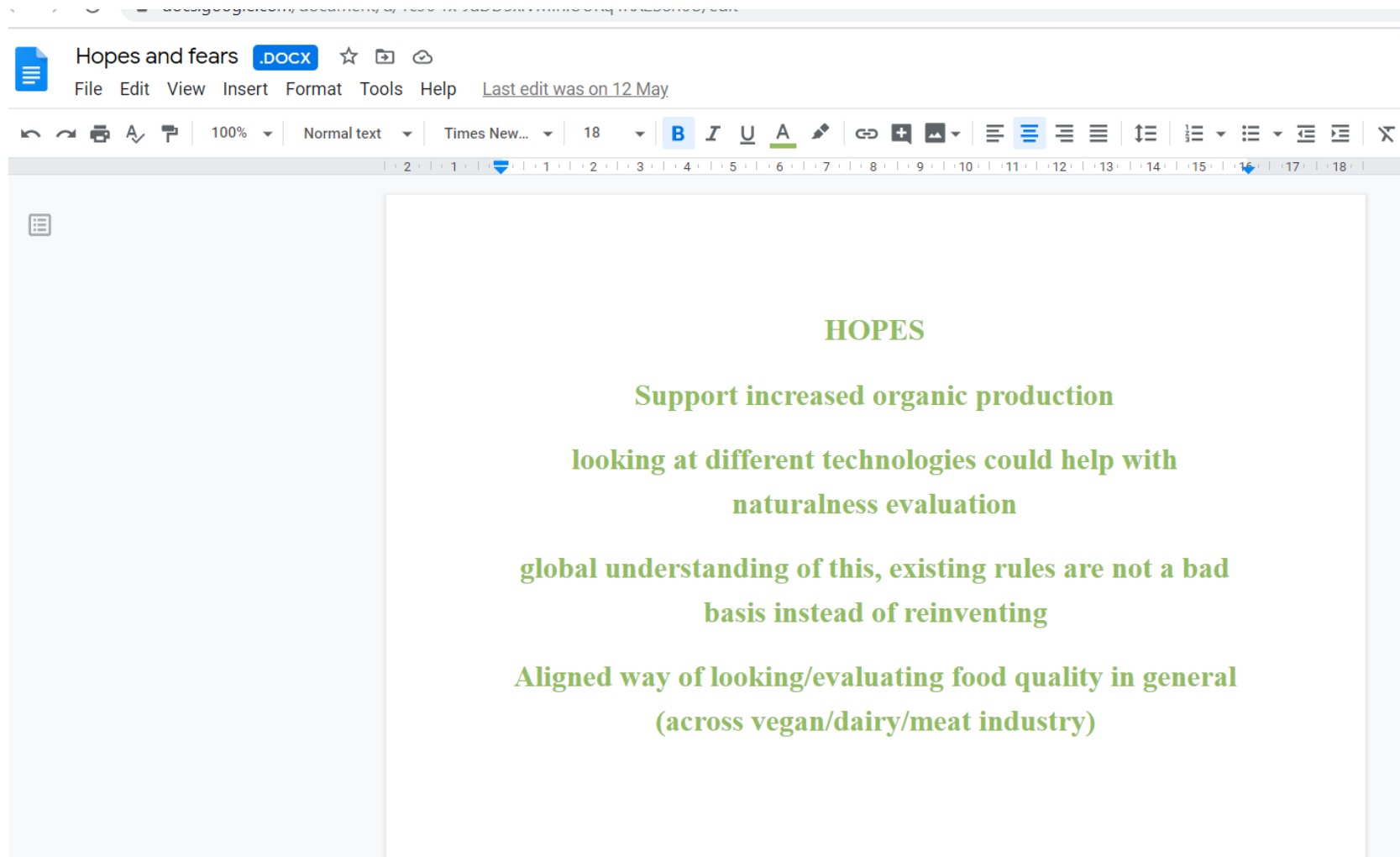
Time	Activity
12.30 – 12.45	Introduction (ProOrg presentation)
12.45 – 13.00	Ice breaker activity (Hopes and fears)
13.00 - 13.45	Listing processing steps
13.45 – 14.00	BREAK
14.00 – 14.45	Listing criteria, indicators and parameters
14.45 - 15.00	BREAK
15.00 – 15.20	Focus group discussion
15.20 – 15.30	Final conclusions and end workshop

Online workshop setup - examples

1. Warm-up activity to get used to online way of working (Hopes and fears)
2. Sharing a link to a file where each person will write their hopes and fears



1. Participants open the word file and write in it one at a time.
2. Workshop leader shares the screen with the opened file.



Assessment protocol - example

1. One participant assigned as a leader who fills out the excel file while sharing it with others.
2. All participants requested to open the Protocol for assessment.
3. Participants go from one task to another and fill out required Excel fields/sheets (workshop leader intervening only if participants ask for help or if they make a mistake).

The screenshot shows an Excel spreadsheet with the following data entry form:

Product :	Milk
Existing process :	Pasteurization
Alternative process :	HPP
Aim:	aim 2

Two process flow diagrams are shown below:

Substeps 1.1.b and 1.1.c

Existing process*

Inputs	Processing steps	Outputs
Raw Milk	→ Separation	
Logistic: different site than	↓ Standardisation	Shelf life will be different
Hot water	↓ Pasteurisation HTST	
Cold water	↓ Filling in cardboard packaging	
Electricity	↓	
Cardboard pack	↓	
	↓	
	↓	
	↓	

Substeps 1.1.d and 1.1.e

Alternative process*

Inputs	Processing steps	Outputs
Raw Milk	→ Separation	
Logistic: different site than	↓ Standardisation	Transport of bottles Shelf life will be different Is it legal to do HPP?
	↓ Filling in plastic bottles	
Water	↓ HPP	HPP is a semi-continuous process Plastic bottles might be needed
Electricity	↓	
Plastic bottles	↓	
	↓	
	↓	
	↓	

Workshop end

- **Group discussion**
 - Example of questions
 - What were the positive aspects?
 - Which of the tasks were difficult for you to perform? Why?
 - Which tasks seemed unnecessary? Why?
- **After the workshop**
 - Survey with similar questions as in the group discussion

Positive and negative technical aspects

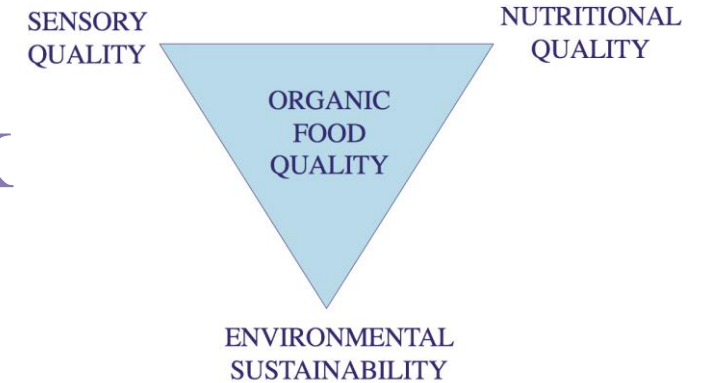
- Positive
 - We did not have to postpone the meeting
 - MS Teams works well - screen and document sharing, recording (the leader needs to be well acquainted with the technical aspects)
 - The participants use Teams regularly

- Negative
 - Different people have different computer literacy (e.g. some could not open files)
 - Difficult to engage everyone to the same extent since we cannot see what they are actually doing

Analysis of the workshop

- The workshop was recorded, transcribed and analysed
- Good group dynamic: The participants different backgrounds working in different areas of the company → Good discussions and all aspects covered
- When each step of the protocol was introduced, in general the participants understood what they had to do
 - In some cases the facilitator needed to clarify the task: Example: When working with the Excel sheet the participants needed help with navigating in different tabs and the meaning of "input"/"output" was explained by the facilitator

Comments to the Framework (Theory)



- How the three aspects of organic food quality (sensory quality, nutritional quality and environmental sustainability) had been chosen and why these three
 - One participant found that the consumer part was missing
 - One participant mention "Life Cycle Analysis" and that this project seem similar to this
 - **Feedback from survey:** *"How does this compare with an LCA assessment? Are you inventing the wheel?"*
- One participant mentions that it is impossible for a company to collect data
 - **Feedback from survey:** *"The sustainability part is more or less impossible - where to start and where to end"*

Comments to the Framework (Tasks performed)

- Difficulties understanding what “input”/”output” means
 - **Feedback from survey:** *“Listing input and output, as those descriptions did not make sense to me. And what was the purpose of listing input/output”*
 - **Feedback from survey:** *”Input/output - did not understand the point”*
- Wording “parameter” and “indicator” unclear.
 - Suggests renaming “parameter”=“unit” and “indicator”=“analysis” or similar
- Renaming of tabs in Excel sheet to make it easier to navigate in

Comments to the Framework in general

- Participants mentioned that the work that needs to be done is **too complex**. Suggests the evaluation of technologies could be more superficial
 - **Feedback from survey:** *“I do not think that the degree of detail is needed. You could make it much easier with a rough estimation, which is quite normal (at least in our company) to perform in a project group before testing new technologies anyway.”*
 - **Feedback from survey:** *”Easen up on the degree of detail needed. Rough estimations are ok.”*
 - **Feedback from survey:** *“Only the processing steps that differ are necessary to list and evaluate, as all other things are being equal”*

Difficulty of tasks – survey overview

- **Substep 1.1.**

Listing inputs and outputs of the existing processing method (2 VC, 1 MC)

Listing inputs and outputs of the alternative processing method (2 VC, 1 MC)

- **Substep 1.2**

Determining criteria of the environmental sustainability aspect (3 EC)

Explaining how selected criteria are affected during processing (2 EC, 1 VC)

- **Substep 2.1 and 2.2**

Selecting indicators for environmental sustainability criteria (3 EC)

Selecting parameters for environmental sustainability indicators (2 EC, 1 MC)

LEGEND: EC – extremely challenging (score 5/5),
VC - very challenging (score 4/5),
MC – moderately challenging (score 3/5)

3 out of 8 people responded

This study continuation prospects

	R1*	R2*	R3*
Do you think you would be able to perform this assessment in the future alone with your team?	1	8	7
Would you want to perform this assessment in the future with a help of a facilitator?	1	0	0
Would you want to perform this assessment in the future for another organic food product, but alone with your team	1	0	0

*10 extremely likely, 0 not at all likely

Will you be able to collect data?

R1: *We are not planning to collect data.*

R2: *We are not planning to collect data*

but if we would we would need help from outside the company.

R3: We can collect data ourselves but also need help from others within the company.

Case studies future prospects

- How to deal with:
 - Challenges of finalizing case studies with companies
 - continuation with this Danish dairy company and other companies (from pilot studies) is questionable
 - Assessment framework feedback
 - To adapt or not to adapt the framework before moving to the following companies?



Caroline Modin Christensen
cmc@food.ku.dk

Andrijana Horvat
andrijana.horvat@wur.nl