Food Futures Project MOOC 3: Measure, Record and Validate DLT Technology for Sustainable Food Consumption

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Jumite, R., Amadae, S., Sood, S.

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Introduction

This report presents Food Futures experiment results. Experiment was organized as MOOC "Sustainable Consumption" at Helsinki University, from November, 2022 till March 2023. The key parts of the experiment were the Food Futures app that facilitated sustainable food consumption and DLT blockchain technology to Measure, Record and Validate sustainable food choices. The experiment allowed for consumer involvement and feedback for the Food Futures app iterations and development. This report summarizes the results in two main categories: results of allocative efficiency to promote sustainable food consumption, and results of UX/UI testing.

1A Goals: Allocative Efficiency

The primary purpose of our experiment was to determine whether the participants using the Food Futures app could increase allocative efficiency and sustainable food consumption in comparison with university cafeteria clients who are not participating in the experiment. The sustainable food consumption was determined by three threshold levels of the Food Wellbeing and Suffering Index that is applied on the protein source products. The three threshold levels are Green, Yellow, and Red. The Green threshold level signifies the most sustainable protein sources — plant-based. The Yellow threshold level represents the less polluting animal-based protein source categories — fish, chicken, egg. The Red category represents the most polluting protein source product categories, which are beef, cheese and pork.

1B Goals: Learnings about UX/UI

The secondary goal of the MOOC experiment was to learn about the UX/UI design of the Food Futures mobile app from the app users perspective. As the mobile app prototype is the central medium for the Food Futures experiment, it is important to ensure that it is user-friendly, follows user-centered design principles, is easy to use, is informative and educative for the users, and allows to achieve the allocative efficiency goals. To ensure the quality of UX/UI design, user-testing and surveys that allow user feedback on the app functionality and design are crucial. Within the MOOC Fall 2022 we have surveyed participating students to gather insights on following matters:

- Usability of onboarding and first steps on the Food Futures mobile app
- Easiness to read and understand the Food Wellbeing and Suffering Index
- Easiness to validate the meal choices
- Interpretation of the personal and collective statistics and impact
- Access to and understanding of FoodPrint tokens balances
- Usability of the home validation functionality
- Recognising any other unintended obstacles, errors, or possible improvements

The results of the mobile app UX/UI design related surveys will serve as the basis for the future app design improvements. Qualitative mobile app development requires an iterative approach with several rounds of user testing/surveys to gather feedback, followed by informed changes in the app UX/UI design, to eventually create a user-friendly digital environment appropriate for daily use.

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2A Experimental design

The anti-rival distributed ledger (DLT) blockchain technology is at the core of our experiment. The goals of the blockchain technology are threefold: Measure, Record and Validate (MRV). Measure the environmental impact of choice, Record choice, and Validate sustainable food consumption. The experiment is held in the context of Finland, where we address our atmospheric commons with a target to reduce GHG emissions to achieve sustainable lifestyles and net zero. We uphold citizens' sovereignty, consumer choice, and sustainable consumption. We target agricultural GHG emissions coming from food consumption because these are most directly related to individual consumptive choice, where the main challenge is dietary resistance instead of a failure of technological innovation.

The experiment took place in a Finland-wide university learning environment. The Food Futures phone app was the central tool for data collection as a means to convey information about the relative sustainability of food choices, and to Measure, Record, and Validate individual and collective contributions to CO2e emission reduction, by choosing more sustainable lunch options. Subjects were students who enrolled in and completed an online course. The pedagogic content of this MOOC "Sustainable Consumption" aimed to teach the meal choices consistent with the internationally recognised 1.5-degree target and the Finland-specific 1.5-degree lifestyles alongside the principle of consumer sovereignty.

The ultimate aim of the Food Futures illustrative case is to build an effective accounting system to Measure, Record, and Validate consumer contributions to sustainable food consumption. These positive externalities not only are enhanced by the assurance of collective contributions, but also serve to witness every individual's contribution. In order to Measure, Record and Validate sustainable food choices we mint our signature FoodPrint tokens. Distributed ledger system (DLT) minted tokens are sometimes related to cryptocurrencies, such as Bitcoin or Ethereum, our FoodPrint Tokens do not have innate value, but only acquire value in common

usage. They serve as a measurement and accounting tool to reflect upon and to share value, and as a means of eternal payment — in this case indelible recognition. The Food Futures currency system is focusing on anti-rival, positive-sum value of positive externalities leading to ecological security.. Hence, all FoodPrint Tokens that are minted represent carbon-gas reduction, towards the 1.5-degree target.

2B Experimental implementation

Within our experiment we applied the Ostrom's principle of polycentric governance, and operated in collaboration with four actor types: the institutional designer, the vendor, the consumers, and the software developer. In this case, our research team played the institutional designer role. Our partner, the UniCafe university cafeteria chain, was the vendor. Finland-wide Helsinki University students (both: bachelor's and master's level) participated in our experiment as consumers, as they enrolled in the 2-credit MOOC "Sustainable Consumption" without any prior knowledge prerequisites. Furthermore, we collaborated with a private software development company who took a strong interest in our research, as they developed the Food Futures mobile app and was integrated into the formal ethics review process to maintain the privacy rights of participants.

Our research team in collaboration with the software development company developed the Food Futures web-based phone app that was the central medium of the experiment. The app served as an actionable tool in two ways: Firstly, to provide sustainability impact ratings of available meal options via the signature Food Wellbeing and Suffering Index; Secondly, to Measure, Record, and Validate individual and collective impact of the consumers, who were using the app. Meal options were labeled as either Green (eat often), Yellow (eat sometimes), or Red (eat rarely). The vendor (in this

case UniCafe) supplied us with the data necessary to provide a menu of daily food options. The participants validated their lunch purchases by using the app. These food choice validations were verified by us for reliability. To complete the course by participating in the experiment (an alternative option was available), participants were required to validate at least eight meals during the MOOC experiment period. Furthermore, the participants received FoodPrint Tokens for sustainable meal choices reflecting elements of individual and collective choice.

Apart from validating food choices at UniCafe and minting the FoodPrint Tokens, the participants had the opportunity to also validate meal choices at home. Home validation was available to all participants, but instead of receiving the FoodPrint Tokens, the participants validating at home received a different category of verification that are called the Proxy Tokens, as the food choices at home were not transparently validated in the vendor's venue.

3 Survey questions

Survey 1
1. What is your age group?
2. What is your field of study/ expertise?
3. What is your nationality?
4. With which gender identity do you identify the most?
5. On the scale of 1-5, how easy was the onboarding process? (We are referring to the process of setting up the account.)
6. Any feedback to improve the app onboarding?
7. Were the app intro pages clear?
8. Any feedback to improve the app intro pages?
9. Did you face any challenges when setting up the digital wallet?
10. What kind of challenges did you face when setting up the wallet, if any?

Survey 2
1. How difficult did you find the content in the Module 2?
2. How difficult did you find the quizzes in the Module 2?

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3. On a scale from 1-5, how much time did it take you to complete the Module 2?
4. Do you have any feedback on the Module 2?
5. How much of the information was completely new to you and how much did you already know (or from previous modules)?
6. On the scale of 1-5, how intuitive was it to interpret the Food Wellbeing and Suffering Index?
7. What was the reason for your score?
8. How could we help you to understand the index better?
9. Did you learn anything about the environmental impact of food products that you previously did not know?
10. What were the new things that you learnt?
11. Were you able to validate your meal by uploading a picture of it?

Survey 3
1. On a scale from 1-5, how difficult did you find the content in the Module 3?
2. On a scale from 1-5, how difficult did you find the quizzes in the Module 3?
3. On a scale from 1-5, how much time did it take you to complete the Module 3?
4. Do you have any feedback on the Module 3?
5. How much of the information was completely new to you and how much did you already know (or from previous modules)?
6. How many meals did you validate so far?
7. Explain your the reason behind your choice
8. Do you find it motivating to see the collective impact of sustainable meal choices?
9. Explain the reason behind your choice
10. Is it motivating to you to see the comparison of choices between the app users and non-users?
11. Explain the reason behind your choice
12. Have you ever tried, or followed a plant-based diet in the past?
13. Would you like to report any bugs? Attach screenshots

Survey 4
1. On a scale from 1-5, how difficult did you find the content in the Module 4?

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2. On a scale from 1-5, how difficult did you find the quizzes in the Module 4?
3. On a scale from 1-5, how much time did it take you to complete the Module 4?
4. Do you have any feedback on the Module 4?
5. How much of the information was completely new to you and how much did you already know (or from previous modules)?
6. On the scale of 1-5, were you able to understand the individual impact scale page of the app prototype?
7. Share with us what was easy and what was difficult
8. Did you have any revelations while understanding the scale of environmental impact of different protein source products?
9. Is it motivating to you to see the comparison of choices between an average Finnish consumer, you and the climate targets?
10. Would you like more information to support your understanding of the carbon targets?
11. What kind of information would you like to see on the app?
12. What best describes your diet prior to using the Food Futures app?
13. What best describes your diet currently (considering your meals over one week)?
14. Would you like to report any bugs? Attach screenshots.

Survey 5
1. On a scale from 1-5, how difficult did you find the content in the Module 5?
2. On a scale from 1-5, how difficult did you find the quizzes in the Module 5?
3. On a scale from 1-5, how much time did it take you to complete the Module 5?
4. Do you have any feedback on the Module 5?
5. How much of the information was completely new to you and how much did you already know (or from previous modules)?
6. On the scale of 1-5, how hard was it to understand the collective impact pie chart page of the app prototype?
7. Share with us what was easy and what was difficult
8. Has the learning material from the MOOC through Module 5 changed your diet in any way? If yes, how?

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9. Has using the Food Futures app changed your thinking about meal choices in any way? If yes, how?
10. Would you like to report any bugs? Attach screenshots.

Survey 6
1. On a scale from 1-5, how difficult did you find the content in the Module 6?
2. On a scale from 1-5, how difficult did you find the quizzes in the Module 6?
3. On a scale from 1-5, how much time did it take you to complete the Module 6?
4. Do you have any feedback on the Module 6?
5. How much of the information was completely new to you and how much did you already know (or from previous modules)?
6. Have you been using the application prototype consistently?
7. Where do you use it the most?
8. How many times a week do you use it?
9. What would enable consistent use?
10. Has the learning material from the MOOC through the Module 6 changed your diet in any way? If yes, how?
11. Has using the Food Futures app changed your thinking about meal choices in any way? If yes, how?
12. If you tend to eat more plant-based food during lunches validated with the Food Futures app, please mark if any of the following are true:
13. Would you like to report any bugs? Add screenshots

Survey 7
1. On a scale from 1-5, how difficult did you find the content in the Module 7?
2. On a scale from 1-5, how difficult did you find the quizzes the Module 7?
3. On a scale from 1-5, how much time did it take you to complete the Module 7?
4. Do you have any feedback on the Module 7?
5. How much of the information was completely new to you and how much did you already know (or from previous modules)?
6. Do you glance at the index before making a meal choice?
7. Which segment of the application is the most important to you?

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8. Would you recommend the application to your peers?
9. Would it encourage you to use the app consistently if you could redeem the tokens?
10. How would you like to redeem the tokens?
11. Has the learning material from the MOOC through module 7 changed your diet in any way? If yes, how?
12. Has using the Food Futures app changed your thinking about meal choices in any way? If yes, how?
13. If you tend to eat more plant-based food during lunches validated with the Food Futures app, please mark if any of the following are true:
14. Would you like to report any bugs? Add screenshots

Survey 8
1. On a scale from 1-5, how difficult did you find the content in the Module 8?
2. On a scale from 1-5, how difficult did you find the quizzes in the Module 8?
3. On a scale from 1-5, how much time did it take you to complete the Module 8?
4. Do you have any feedback on the Module 8?
5. How much of the information was completely new to you and how much did you already know (or from previous modules)?
6. How many tokens have you collected?
7. Add a screenshot of your token balance
8. Would you continue the app prototype use after the course?
9. What would motivate you to continue using the app prototype?
10. What would demotivate you to continue using the app prototype?
11. Would you like to see the prototype being launched on the app store?
12. Has using the Food Futures app changed your thinking about meal choices in any way? If yes, how?
13. Do you anticipate that participating in the MOOC will change some of your long-term dietary habits? If yes, how?
14. Do you anticipate that using the Food Futures app will change some of your long-term dietary habits? If yes, how?
15. If you find yourself making more sustainable meal choices than in the past, mark all of the following that apply to your choices:

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4A Results: UX/UI

Survey results

On the scale of 1-5, how easy was the onboarding process? (We are referring to the process of setting up the account.)
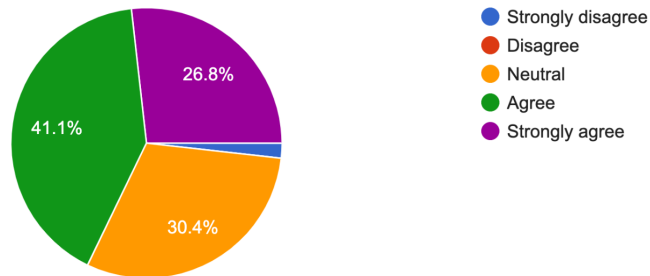
56 responses
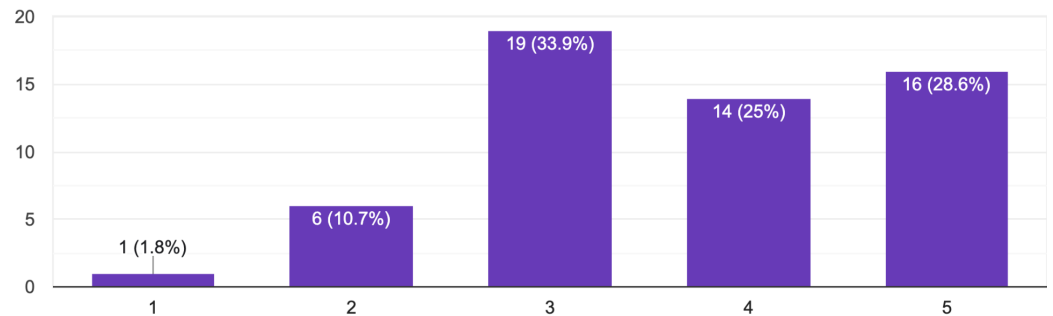
- Connecting to the wallet was the most difficult part
- Requesting accessing app from various browsers, Opera felt restrictive
- Interested to learn more about the aggregated data (comparison between app users and other UniCafe visitors)
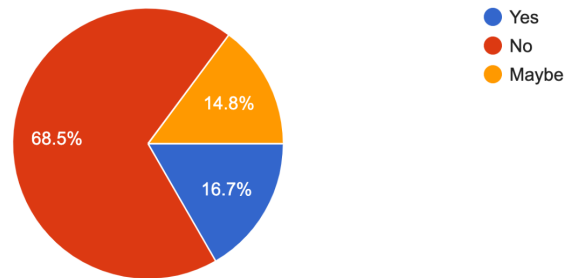- Requesting adding functionality to add photos from phone gallery

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Were the app intro pages clear?
56 responses

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

26.8%
41.1%
30.4%

Did you face any challenges when setting up the digital wallet?
54 responses

- Yes
- No
- Maybe

68.5%
14.8%
16.7%

What kind of challenges did you face when setting up the wallet, if any?

- Setting up the wallet was confusing
- Connecting to the digital wallet was misunderstood that it would require bank details
- Confusion about downloading new browser
- Questions about the need of the wallet

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On the scale of 1-5, how intuitive was it to interpret the Food Wellbeing and Suffering Index?
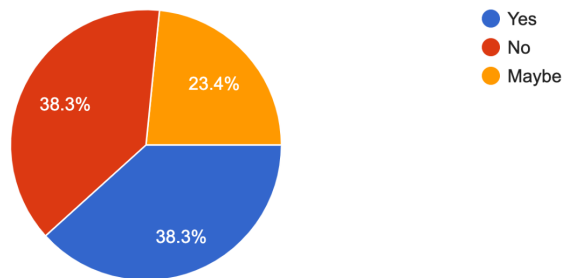
45 responses
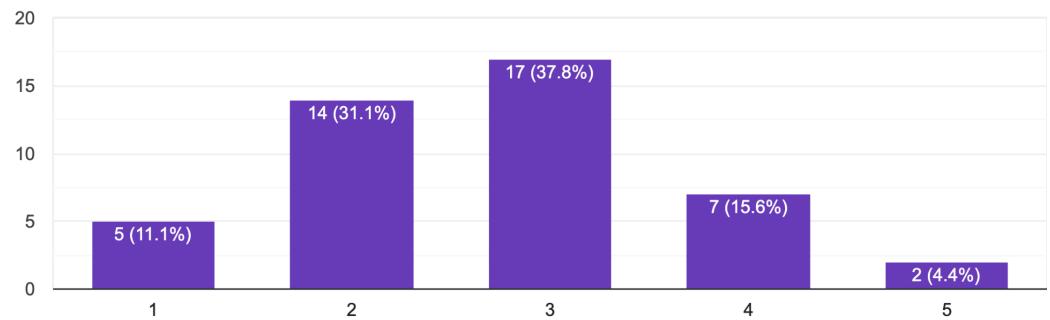
- Very intuitive for some users.
- The red segments of the index should be visually bigger than the green ones. Now it feels counter-intuitive. The color shading is confusing for several users.
- Was intuitive for some users, who also assumed it might not be so intuitive for users with less knowledge about food sustainability.
- One user didn't understand the index.
- The index needs to be explained better
- One user requested to see the numbers of their food handprint.

Suggestions for the index improvements:

- The index could be improved by applying scoring approach (similarly as on food packaging)
- Terminology of the index could be made simpler
- Clearer explanation of how the indeed works is needed
- "Read more" buttons about every variable would help
- Explanation video could be helpful
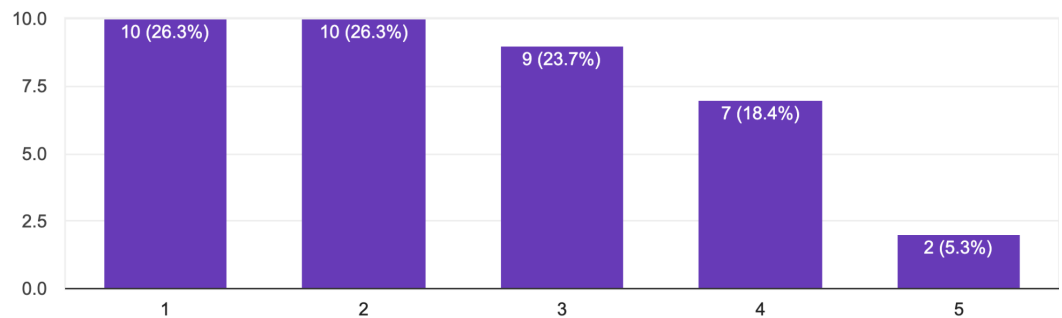- Providing a detailed explanation on how it was built

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Were you able to validate your meal by uploading a picture of it?

47 responses

On the scale of 1-5, were you able to understand the individual impact scale page of the app prototype?

38 responses

- It was easy to understand for some users
- The overall UX/UI remains confusing and not friendly for some users
- "It is hard to understand, is 100g of protein the same thing if I eat 100g of protein product or 100g of protein from a protein based product? Do I need to eat vegetables until I reach 100g of protein for it to be equivalent to CO_2e counted with proteins?"

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Would you like more information to support your understanding of the carbon targets?
39 responses

- Yes
- No
- Maybe

38.5% 20.5% 41%
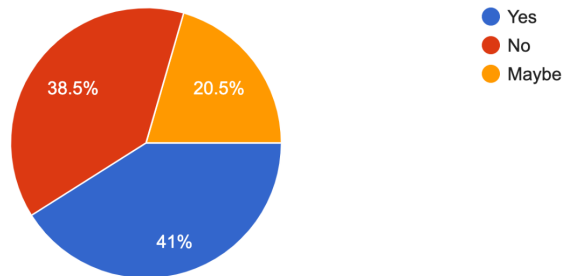
What kind of information would you like to see on the app?

- "The whole chain of processing with material and water footprint as well as other factors (people's and animal -well being in the process)."
- "The carbon output of the whole meal and not just the protein."
- "For example, what is the carbon target? Am I or one protein a carbon target? Who is targeting carbon targets?"
- Many users are interested in CO2 of other fields: transportation, housing, etc

On the scale of 1-5, how hard was it to understand the collective impact pie chart page of the app prototype?
37 responses

7 (18.9%) 9 (24.3%) 11 (29.7%) 7 (18.9%) 3 (8.1%)

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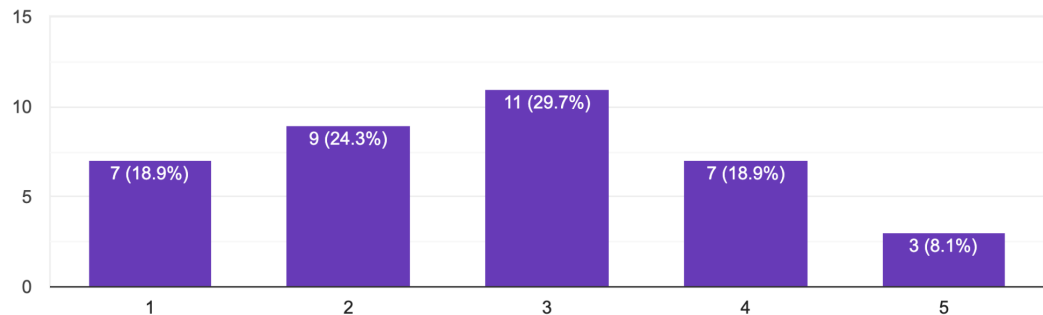
- It was easy for some users
- "1. The pie is very difficult. When someone is presenting me visual graphics, I feel like I am trying to move the earth from its' place. 2. And this section included many questions different from given materials. Could for teaching extra but really not sure, if tests reading skills of memory and applicable thinking methods, or does it test understanding of the taught material. P.S. Can't I understand the causal link between human and earth without visualizing statistics? Can't I control my actions? Can't I understand the concept of carbon emissions without statistics? Clearly no, and now I learned that interventions of prices are coming and 3. I can't eat potato chips instead of proteins... (because health-risk-cost analysis and externalities to people) Åaaah! 4. What is carbon emissions for graphics of science? Can I eat chips instead? Why is my free choice in app listed as "with concern of animal well fare", how the meal choice is about peoples' preferences with concerns? The preference is just for meal (choices)."
- Explanation for different colors of pie-charts is needed
- Some people didn't find the pie charts in the app

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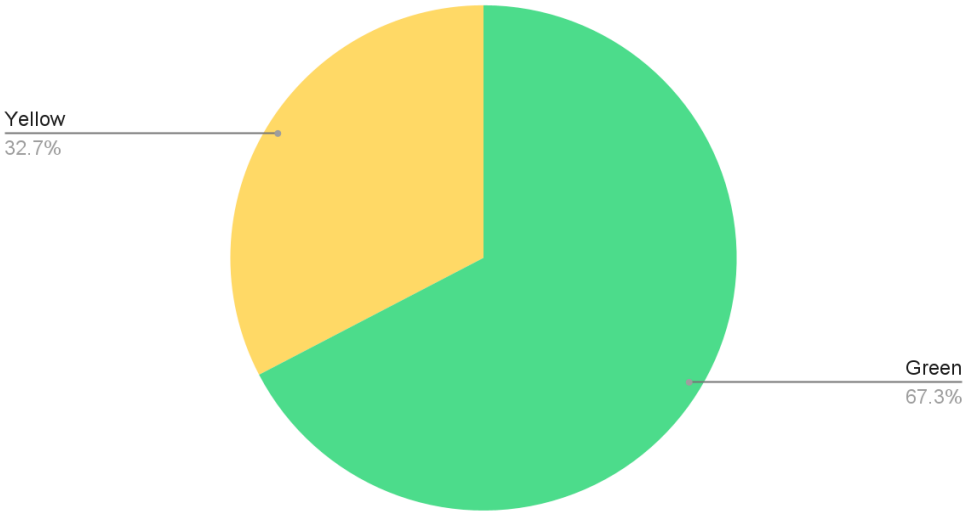# 4B Results: Aggregated data on allocative efficiency

Validated purchases at UniCafe and at home

By 22.02.2023 we have **137 validations** (by the users whose emails can be matched to their name/email on Digicampus). By 22.02.2023 there are 24 MOOC completions.

Validations at UniCafe

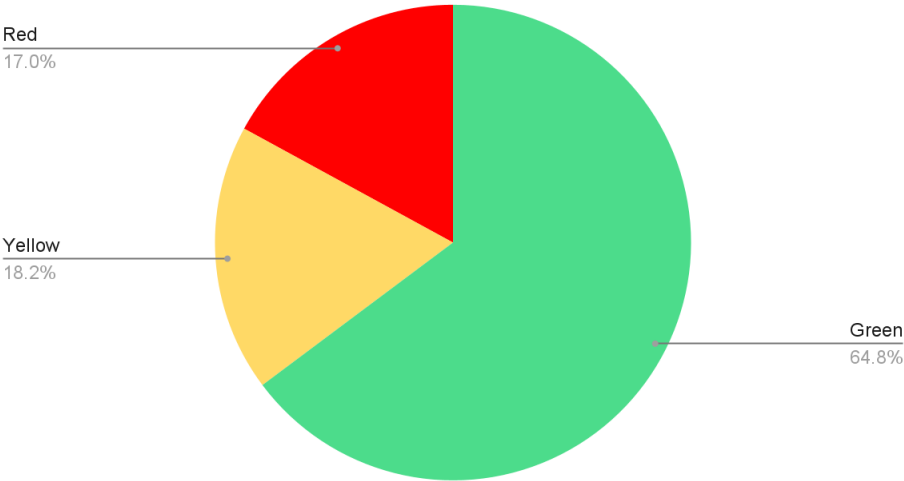|	
Green	33
Yellow	16
Red	0

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Validations at UniCafe

| Yellow | 32.7% |
| Green | 67.3% |

Validations at home

Green	57
Yellow	16
Red	15

Validations at home

Red	17.0%
Yellow	18.2%
Green	64.8%

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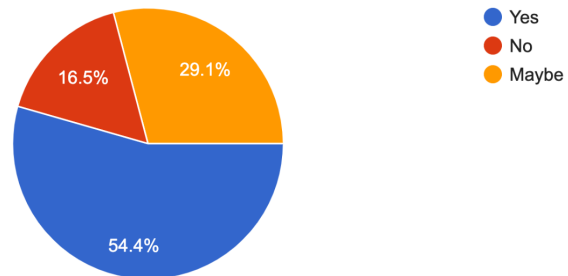
Survey results on allocative efficiency

Do you find it motivating to see the collective impact of sustainable meal choices?
79 responses

Legend:
- ● Yes
- ● No
- ● Maybe

16.5% · 29.1% · 54.4%

- The statistics are confusing and some users can't understand them
- Some users believe in collective action
- Some respondents didn't find the collective impact visualization
- Some users were curious about other people habits

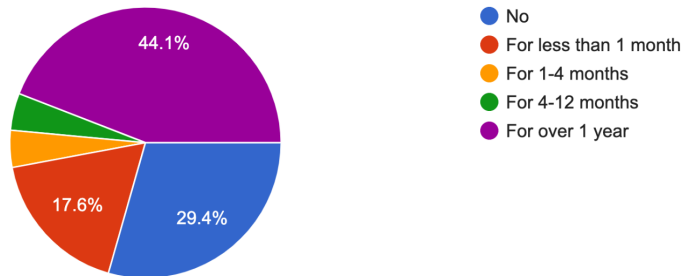Is it motivating to you to see the comparison of choices between the app users and non-users?
79 responses

Legend:
- ● Yes
- ● No
- ● Maybe

38% · 30.4% · 31.6%

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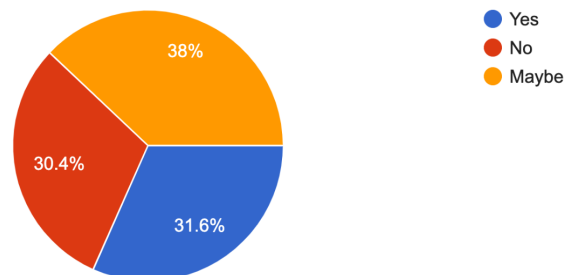
- It is not crucial for some, but it is interesting to see
- Many users haven't found the graphs

Have you ever tried, or followed a plant-based diet in the past?
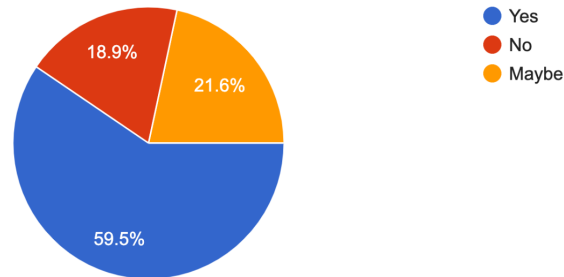
68 responses

- No
- For less than 1 month
- For 1-4 months
- For 4-12 months
- For over 1 year

Did you have any revelations while understanding the scale of environmental impact of different protein source products?
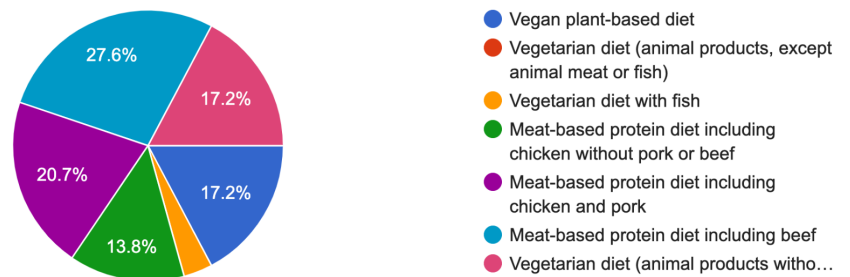
38 responses
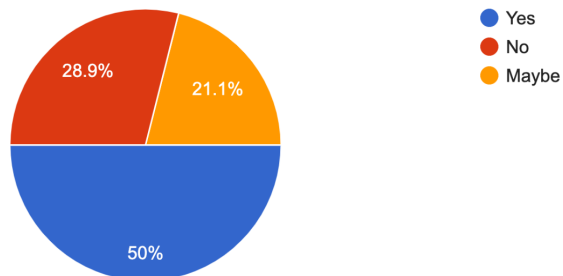
- Yes
- No
- Maybe

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Is it motivating to you to see the comparison of choices between an average Finnish consumer, you and the climate targets?
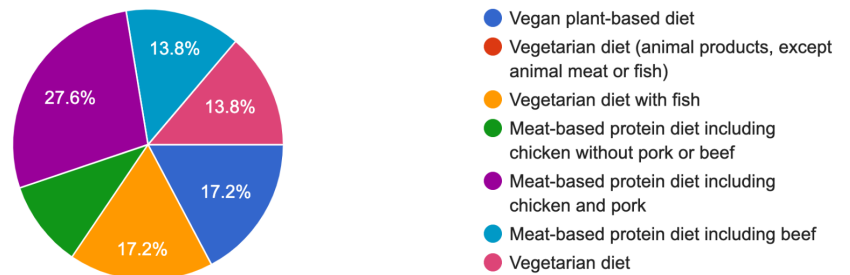
37 responses

- Yes
- No
- Maybe

Yes: 59.5%
No: 18.9%
Maybe: 21.6%

What best describes your diet prior to using the Food Futures app?

29 responses

- Vegan plant-based diet
- Vegetarian diet (animal products, except animal meat or fish)
- Vegetarian diet with fish
- Meat-based protein diet including chicken without pork or beef
- Meat-based protein diet including chicken and pork
- Meat-based protein diet including beef
- Vegetarian diet (animal products witho…

27.6%
17.2%
17.2%
13.8%
20.7%

What best describes your diet currently (considering your meals over one week)?

29 responses

- Vegan plant-based diet
- Vegetarian diet (animal products, except animal meat or fish)
- Vegetarian diet with fish
- Meat-based protein diet including chicken without pork or beef
- Meat-based protein diet including chicken and pork
- Meat-based protein diet including beef
- Vegetarian diet

13.8%
13.8%
27.6%
17.2%
17.2%

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Has using the Food Futures app changed your thinking about meal choices in any way? If yes, how? (Survey 5)

- 5 people responded: yes
- 6 people responded: no

Has using the Food Futures app changed your thinking about meal choices in any way? If yes, how? (Survey 6)

- 3 people responded: yes
- 5 people responded: no

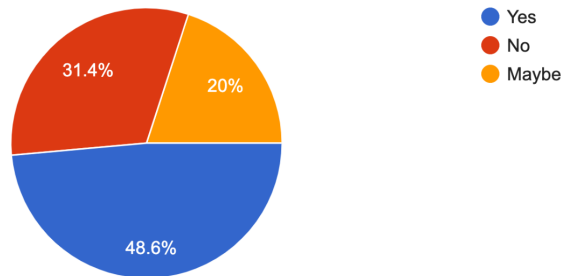**Has using the Food Futures app changed your thinking about meal choices in any way? If yes, how? (Survey 7)**

- 1 person responded: yes
- 8 people responded: no

Has using the Food Futures app changed your thinking about meal choices in any way? If yes, how? (Survey 8)

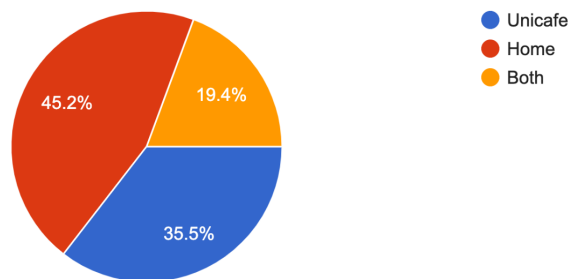- 3 people responded: yes
- 4 people responded: no

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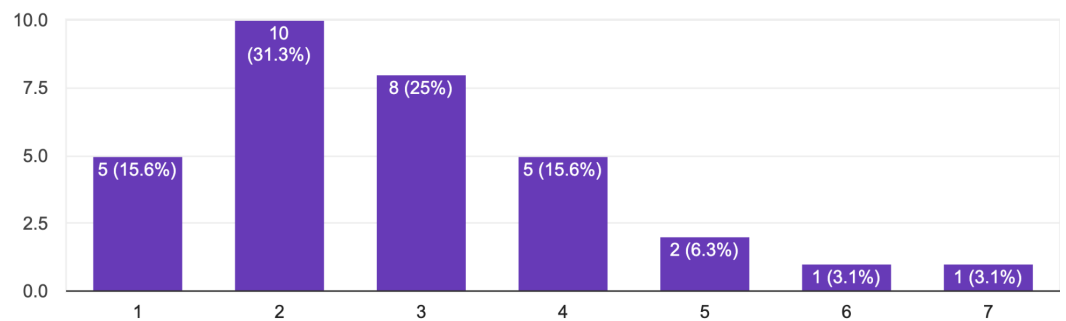## Have you been using the app prototype consistently?

35 responses

- Yes
- No
- Maybe

Yes 48.6%
No 31.4%
Maybe 20%

Where do you use it the most?

31 responses

- Unicafe
- Home
- Both

Unicafe 35.5%
Home 45.2%
Both 19.4%

How many times a week do you use it?

32 responses

1: 5 (15.6%)
2: 10 (31.3%)
3: 8 (25%)
4: 5 (15.6%)
5: 2 (6.3%)
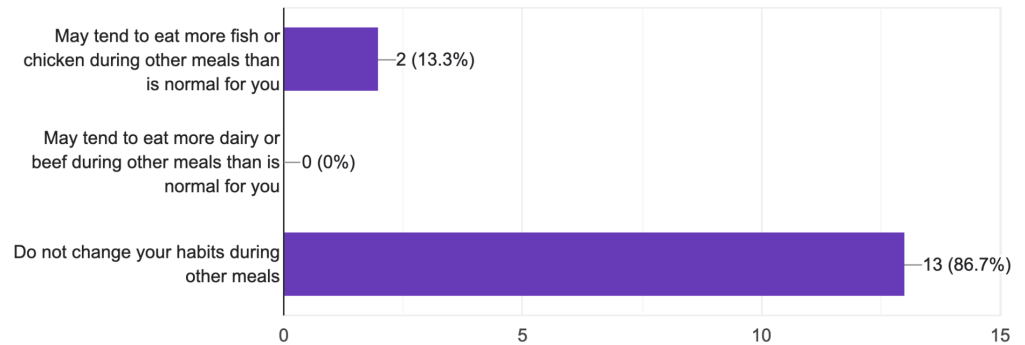6: 1 (3.1%)
7: 1 (3.1%)

What would enable consistent use?

- For most of the users: if it was well developed, stand-alone app, available on Appstore
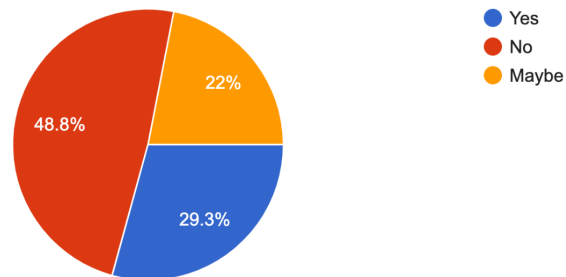- For most of the users: Pop-up reminders before the lunch time

If you tend to eat more plant-based food during lunches validated with the Food Futures app, please mark if any of the following are true:

15 responses

Do you glance at the index before making a meal choice?
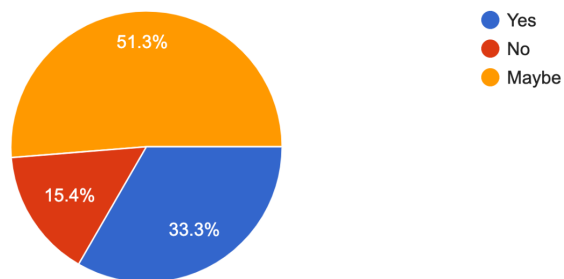
41 responses

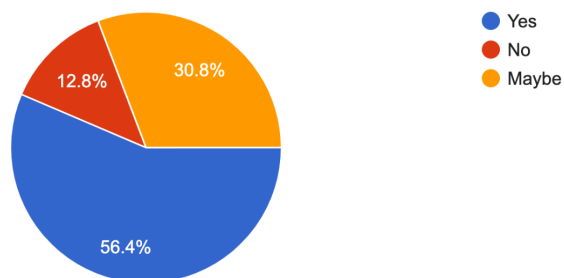## Which segment of the application is the most important to you?
36 responses

- Index home page
- Individual impact page (the carbon meter)
- Collective impact page (the pie charts)
- Tokens page
- The lacking information of water footprint etc (right side of the choice). Is missing information an externality and…
- none
- En ole käyttänyt sitä vielä

Would you recommend the application to your peers?
39 responses

- Yes
- No
- Maybe

## Would it encourage you to use the app consistently if you could redeem the tokens?
39 responses

- Yes
- No
- Maybe

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How would you like to redeem the tokens?

36 responses
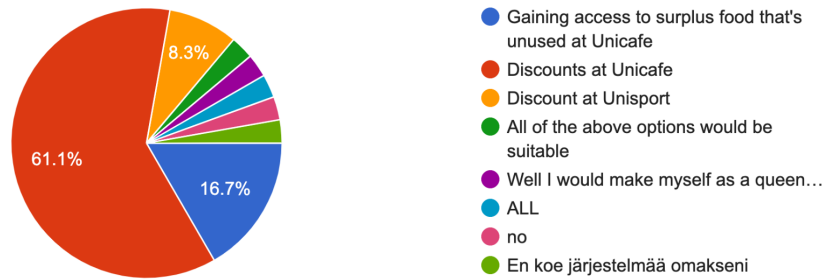
- Gaining access to surplus food that's unused at Unicafe
- Discounts at Unicafe
- Discount at Unisport
- All of the above options would be suitable
- Well I would make myself as a queen…
- ALL
- no
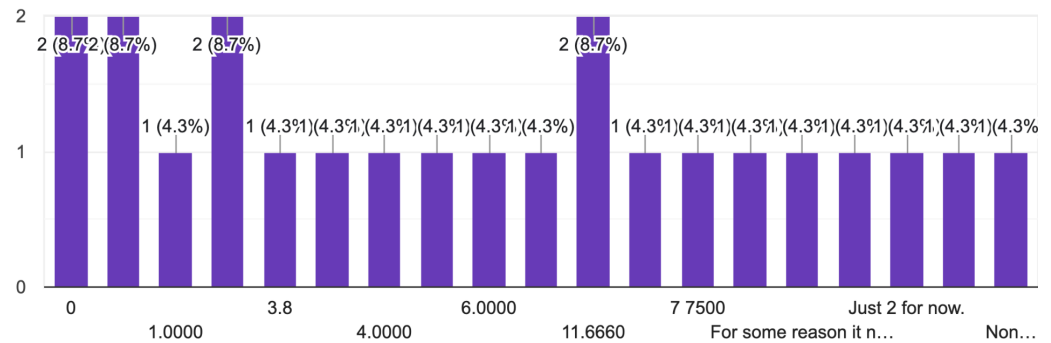- En koe järjestelmää omakseni

If you tend to eat more plant-based food during lunches validated with the Food Futures app, please mark if any of the following are true:
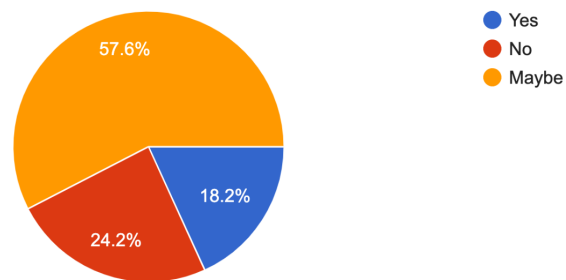
19 responses
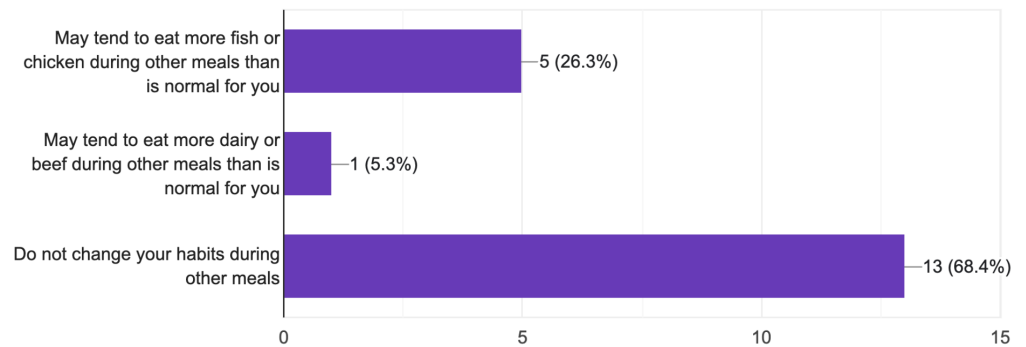
How many tokens have you collected?
23 responses

Would you continue to use the app prototype after finishing the course?
33 responses

- Yes
- No
- Maybe

57.6%

24.2%

18.2%

Do you anticipate that participating in the MOOC will change some of your long-term dietary habits? If yes, how?

- 1 person said maybe, as they were eating mostly plant-based already prior the experiment
- 5 people said yes
- 1 person said they they might reduce or drop cheese consumption
- 1 person said they might eat more chicken and pork
- 2 people said no

- 1 person said that most likely not, but suggested that indexes placed next to food options in the cafeterias would be a good reminder to eat more sustainability

Do you anticipate that using the Food Futures app will change some of your long-term dietary habits? If yes, how?

- 1 person responded maybe
- 1 persian said it will serve as an additional motivation to eat plant-based
- 2 people said no without explanations
- 1 person said yes without explanations
- 1 person said hopefully
- 1 person said yes, if the app develops more
- 1 person said maye not

**What would motivate you to continue using the app prototype?**

- "If this could be integrated into the compensation-option that is available at the Unicafe till."
- For several users: If the tokens would be able to be used in the unicafe for something.
- For several users: if it was developed as stand-alone app

What would demotivate you to continue using the app prototype?

- Bugs and errors
- Not enough detailed information
- The crypto is too complicated

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Would you like to see the app prototype being launched on the app store?

33 responses
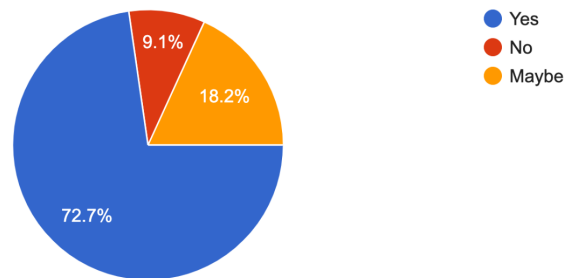
- Yes
- No
- Maybe

9.1%
18.2%
72.7%

Did you learn anything about the environmental impact of food products that you previously did not know?

47 responses

- Yes
- No
- Maybe

31.9%
8.5%
59.6%
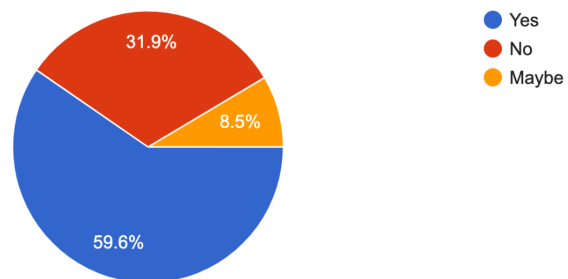
What were the new things that you learnt?

- The extensive negative impact of beef
- Impact of cheese
- Differences between the protein sources
- Scale of CO_2 emission for meat

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Conclusions
UX/UI

For about half of the participants the app onboarding process was smooth. For the participants who found the onboarding process challenging, the main reasons were the request to download the Opera browser and the process of connecting to the crypto wallet.

Many participants found the Food Wellbeing and Suffering index easy to use and described it as intuitive; however, some participants found it confusing. The participants have suggested several improvements, such as more detailed description, simplified terminology, reversed color coding, and adaptation of a scoring system.

More than fifty five present of the participants find collective impact visualization motivating; furthermore, more than seventy present find it inspiring to see their impact compared to the Finnish average. However, it is not easy to find it within the app and a more accessible location would be needed, and the design of these visualizations should be clarified and simplified, as many of the users found them confusing. Surprisingly, more than fifty percent of participants found the individual impact page the most relevant. However, also the individual impact visualization needs to be clarified, as the majority of people find it confusing, especially the meaning behind 100g of protein.

Regarding the Food Wellbeing and Suffering index and communication of different food product sustainability, more than fifty percent of participants found it educational. However, the majority of the participants would like to learn more about the carbon targets.

Almost fifty percent of the participants answered that they mostly used the app for home validations, about thirty five percent of participants at UniCafe, but the rest — seventeen percent of participants answered that they mostly used the app in both: home and UniCafe.

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Allocative efficiency

The Food Futures MOOC 3 experiment shows positive results for the Measure, Record and Validate (MRV) technology for positive contribution towards sustainable food consumption. The use of the Food Futures app proved to be motivational and educational for users to eat more sustainably.

More than half of the participants have recognised that seeing the collective impact of sustainable meal choices is motivating. Almost 60% of the participants answered that seeing their individual environmental impact in comparison with the Finnish average food consumption and with the climate targets are motivating for them. The individual impact page has been the most important app segment for 55% of the participants. Half of the users described the Food Wellbeing and Suffering index and the comparison of different food product sustainability as educational.

When comparing the dietary patterns prior and while participating in the Food Futures experiment, the results show that the participants have considerably reduced beef consumption and instead increased less polluting meat products and fish consumption. Interestingly, the vegetarian diet that also includes dairy consumption has decreased, this might be due to the CO_2-emissions-intensive cheese that has been classified as red in the Food Futures app.

Regarding continuation of the app use after the completion of the MOOC, almost sixty percent of the participants answered that they might keep using it. Many participants claimed that they would use the Food Futures app if it was made as a stand-alone mobile app, and if there would be a possibility to redeem the tokens at UniCafe. More than 55% of the participants have answered that the possibility to redeem the tokens would encourage them to use the app more consistently. Majority of the participants answered that they would like to redeem the tokens to get discounts on the food at Unicafe. At last, approximately 70 % of participants would like for the app to be launched at the App Store.

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Appendix

Food Futures project achievements

Our achievements in chronological order:

1. Public Workshops at BYOK, Pixalate Festival | June 12, 2021
2. Blog Publications for EU ATARCA
   2. a. Hyper transparency practices using blockchain in food systems |
   July 30, 2021
   2. b. Three strategies to a greater value chain accountability | 6 Aug
   2021
   2.c. Overview of the indexes in the fields of sustainability and food | 6
   Aug, 2021
3. Client Acquisition — Unicafe and Flowya Oy
4. Launch of Pilot
5. Report Publication for the first pilot | 1 Aug, 2022
6. News article published with Aalto University | 2 Aug, 2022 Title : New
   technologies can help people make sustainable dietary decisions
7. Launch of Open University MOOC
8. Ostrom Workshop
9. Strategic Research - Scientific Conference : A fair, just and
   sustainable society | 13.Oct.2022
   Topic of presentation: Enabling holistic sustainable transformation
   through informed food consumption by using Distributed Ledger
   Technologies: A pilot use case in Unicafe, Helsinki
10. Video Contest Winning — International Weeks Commons | 10 Nov
    2022
11. News article published with University of Helsinki | 19 Dec 2022
12. MA Thesis | Dec 2022 Title : Food wellbeing and suffering index for
    sustainable food consumption
13. MOOC Book Published | 4 April, 2023

Digitally available links:

1.

https://atarca.eu/wp-content/uploads/FoodFutures/Food_futures_report
-June-2021.pdf

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2. A.

https://atarca.eu/wp-content/uploads/FoodFutures/Food_futures_report-July-2021.pdf

2.b.

https://atarca.eu/wp-content/uploads/FoodFutures/Food_futures_report-August-2021-1.pdf

2.c.

https://atarca.eu/wp-content/uploads/FoodFutures/Food_futures_report-August-2021-2.pdf

3.

https://atarca.eu/wp-content/uploads/Mooc-report-Aug-1.pdf

4.

https://www.aka.fi/strategic-research-programmes-scientific-conference-2022

5.

https://wcw2022.iasc-commons.org/teaching-video-contest/

6.

https://www.helsinki.fi/en/degree-programmes/global-politics-and-communication-masters-programme/studying/news-archive/learning-doing-open-university-mooc-sustainable-consumption

7.

https://aaltodoc.aalto.fi/handle/123456789/118572

8.

https://www.helsinki.fi/en/degree-programmes/global-politics-and-communication-masters-programme/studying/news-archive/sustainable-consumption-textbook-now-published

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