APPENDIX A – DATA COLLECTION

APPENDIX A1

PARTICIPANT INTERVIEW GUIDES

GOAL

- What are the expectations?
- What is the awareness of the programme?
- What are the backgrounds?

INTERVIEW

1. Introducing myself, what am I doing, why the interview
2. Background
    1. Can you tell me about your academic or professional background, what do you do next to this programme?
    2. What skills or experiences do you hope to gain from this programme?
3. Recruitment and motivation
    1. How did you first learn about this programme? (e.g. through family/friends, social media, university, advertisement)
    2. What initially attracted you to this programme?
    3. What information did you seek out before applying, and where did you find it?
    4. How easy or difficult was it to find information about the programme?
    5. Were there any other programmes you were considering? If so, why did you choose this one?
    6. What are your top three expectations from this programme?
    7. What aspects of the programme do you believe were most relevant for your career goals, and which were least relevant, and why?
    8. What are you most excited about in this programme?
4. Future
    1. Where do you see yourself after completing this programme?

APPENDIX A2

PARTICIPANT INTERVIEW ANALYSIS

The interviews were conducted with current participants of the ACHI programme to understand their initial motivation, expectations and the application process, with the main focus on the pre-participation phase.

METHODOLOGY

A total of 14 interviews were conducted with current participants of the ACHI programme. 12 interviewees are external participants, and 2 interviewees are connected to the KAC. Moreover, 6 interviewees were already into farming, and 8 did not have prior experience. The focus was placed on the external interviewees, as they are more difficult to reach during the recruitment phase.

Participant #	Gender	Student type	Farmer
1	Male	External participant	Yes
2	Male	KAC student	No
3	Female	External participant	Yes
4	Female	External participant	No
5	Male	External participant	No
6	Male	KAC student	Yes
7	Female	External participant	No
8	Male	External participant	No
9	Male	External participant	No
10	Male	External participant	No
11	Female	External participant	Yes
12	Female	External participant	No
13	Male	External participant	Yes
14	Male	External participant	Yes

The interviews were conducted at the office at KAC, or at location of the alumni's fields. The interviews were transcribed, and the quotes were summarised and clustered per subject to identify key themes that reflect the current participants' experiences. These clusters were further refined through iterations and resulted in 4 main themes.

RESULTS

The themes that emerged from the analysis from the alumni perspective are divided into 4 main themes. The main themes are: motivation, search for additional information, expectations, and the application process. Within these themes, subthemes are identified.

1. Motivation

The participants had a diverse motivation for joining the ACHI programme. It varied from broadening their horticultural and entrepreneurial knowledge and skills, to their passion for agriculture and the aspiration for an agricultural career.

1.1. Knowledge & skills

An important motivation for participants to join the programme was the opportunity to gain horticultural and entrepreneurial knowledge and develop skills in horticulture. The participants wanted to get hands-on experience complementing the theoretical knowledge, learning the necessary knowledge and skills of the entire horticultural process. In contrast to the ACHI programme, studies in Ghana are focused on mainly theoretical learnings, where they get limited opportunities for hands-on learning.

Participant 5: “It was on the flyer. It said that 80% practical. You know back in university, the theory. That is one thing about Ghana, the theory is very intense. But when it comes to practical, you don’t get the opportunity to do it.”

Furthermore, in Ghana there is a strong desire for continuous learning. Acquiring knowledge is seen as an important factor in creating greater opportunities for financial stability.

Participant 10: “Here then, you know knowledge is brought, knowledge is brought. You cannot finish learning. You need to update yourself of current happenings or

current things. And then in doing so, to get that, you have to get closer to people to address these current issues."

1.2. Passion for agriculture

A passion for agriculture emerged as a motivation for participating in the programme. The participants described an interest in farming and horticulture, often rooted from family work or career opportunities.

Participant 8: "I love my agric and I'm doing it a little in my way."

Participant 2: "Yeah, I am much interested in agric."

1.3. Career

For many participants, the ACHI programme was seen as a path leading towards a successful career in horticulture. This is connected to their aspirations of becoming self-reliant professionals in agriculture, focusing on achieving long-term goals such as financial stability, personal fulfilment, and community impact.

Some participants stated wanting to start their own businesses, such as greenhouse farming or crop production ventures. Others are already working in the field and are participating in the programme to solve problems of their business and find out how to make changes to their current strategies.

Participant 4: "Because I want to become my own boss, through the process."

Participant 5: "So I could go, I could work to get my career goal, that's my goal in life. So I think ACHI is one of the processes I could join for building my knowledge to work towards my career."

2. Search for additional information

After learning about the ACHI programme through flyers, personal networks, or social media, some participants searched for additional information to better understand the programme. The primary methods used for gathering more details included online research and conversations with others who had prior knowledge of the programme.

2.1. Online information

Online research was a popular approach for many participants in gathering additional information about the ACHI programme. They were browsing websites and reading available materials. Some participants also encountered images or stories about the programme, such as personal stories of past participants or alumni success stories, which inspired, increased confidence and awoken their interest in applying.

Participant 4: “I searched through Google, and I saw some few pictures, something small. And I think I saw one alumini, and her story. At least I told myself that I can do this too, since my former woman has done it. I am also going to do it.”

Social media platforms, such as Facebook, Twitter and YouTube, were another key source in information. Posts from organizations like Holland Greentech, as well as content shared by other users, helped participants in finding additional information about the programme.

Participant 9: “Yeah, online. For Delft university, I used their Twitter page, their website was there. So I just searched for most, all the information on Twitter so that I'll just once I go to the page, the web page will be there and it will direct me to the right.”

2.2. Personal network

Participants often spoke to their personal networks for additional information about the ACHI programme. Former participants, consisting of family, friends, and colleagues, were providing insights about the programme for the participants to get a better understanding of the programme.

Participant 1: “I tell my brother who informed me about. He knows so many things about ACHI. And he told me one of his friends completed that is helping me a lot.”

Participant 10: “No, Holland Greentech organized a programme. I had more insight on it during that programme.”

2.3. No need for further research

For a few participants, they felt no need to do further research about the programme. They stated that the provided flyer contained sufficient information. Moreover, one participant preferred to experience the programme personally rather than conducting additional research.

Participant 3: “[further research on ACHI] Not really, not really, not really. But then I took it up on myself to come and see things for myself. Not to ask around, but to come and see for my own myself.

3. Expectations

The participants had several expectations by joining the ACHI programme. These expectations are mainly focused on gaining practical skills, acquiring knowledge and exploring opportunities for their personal network.

3.1. Horticultural knowledge and skills

Participants expected the programme to provide theoretical and practical knowledge regarding horticulture, learning about the full cycle of cultivating and sustainable practices. From selecting the seeds, nursing, preparing the land, controlling pesticides, and cultivating.

Participant 1: "I hope to learn how to do the greenhouse farming, the irrigation, and how to select seeds. "

Participant 7: "OK, I'm expecting to learn more about vegetables."

Participant 8: "We have informal knowledge about it, but the irrigation aspect, that is how you can cultivate all year round. That is my main focus."

3.2. Entrepreneurial knowledge

Another expectation related to education was to gain entrepreneurial knowledge that could help participants building a business. They expect to learn about how to start and manage a business, develop strategic plans, and build a collaborative network to achieve their business goals.

Participant 1: "Yes, and the entrepreneurship area. So that when we finish, we will get it, it will buy it for us."

Participant 10: "And then I expect that processes we are going to learn, how to do a business plan, and then pitch. So I think there is a lot to learn."

3.3. Network building

The participants expect expanding their professional and social networks. They see the programme as a catalyst for their business, to meet the right people, get access to funding et cetera. They expected the programme environment to foster the exchange of ideas, experiences, and insights, creating a supportive community that could continue to grow even after the programme is concluded. Not only with fellow participants, also with industry professionals, such as facilitators, trainers, alumni, companies. These connections were seen as a way to gain mentorship, advice, and potential business partnerships, as well as to stay informed about emerging trends and technologies in horticulture.

Participant 3: "In case, if you can help us to link up with the other one."

4. The application process

The application process for the ACHI programme involved several steps, starting with the initial contact and ending with selection notifications. The participant's journey through the application process varied in terms of the steps required. To better understand the participant's experiences, the application process was

analysed and categorized into five key stages: (1) first contact, (2) application, (3) hand in documents, (4) interview, and (5) selection. These subthemes highlight the procedure they followed to apply.

4.1. First contact

Participants were introduced to the ACHI programme through various channels. A part of the participants discovered ACHI through family and friends. Flyers about the programme were shared within the personal networks, such as those sent by relatives or friends. Another channel was Holland Greentech. Participant got to know about ACHI via their social media, including Facebook, Twitter and WhatsApp, or events and training sessions, where ACHI was promoted.

Participant 3: "Someone sent me a flyer of it and I registered"

Participant 9: "Yeah, I was following Holland Greentech on Twitter. Yeah. So they posted the flyer on their page. Then I saw it and then I applied."

4.2. Application

During the application, the participants had to give essential information about their backgrounds and aspiration. They had to fill in an online form, accessed through a provided link, which required basic details such as their name, age, educational background, and current activities. Additionally, the participants had to submit supporting documents, consisting of a curriculum vitae (CV) and a personal motivation statement, which had to be handed in via e-mail. Those steps were experienced as easy by the participants.

Participant 3: "Oh it [fill in the form] was so easy. Some, a few questions, your name, your age, very few. It wasn't like this, so it was okay."

4.3. Interview

The interview stage is the next stage of the application process, allowing facilitators to evaluate candidates complementary to the application form, CV and motivational letter. The interviews were conducted over the phone.

Participant 2: "I was called back, they said, more interviews when they called and asked what I'm doing, where I'm seeing, so I told them all those information."

4.4. Selection

The selection stage is the final stage of the application process, where participants were informed of their acceptance into the programme. When the participants were selected, they were informed over the phone.

Participant 9: "There was an e-mail, I was provided on the flyer and then I prepared the CV and my personal motivation statement for the programme. Yeah, so I sense

the CV and the personal motivation statement to the e-mail address. And then I was called for an interview. After the interview, then I was selected for the programme."

CONCLUSION

The current participant interviews show the motivation and opportunities for improving communication and recruitment. Participants are primarily motivated by gaining practical horticultural and entrepreneurial skills, supported by a passion for horticulture or aspirations for a future career in the sector. The programme is perceived as a practical and promising step toward self-reliance and income generation. While many participants searched for additional information through online research or personal networks, some relied solely on initial communication materials. However, there was inconsistent availability of information about the ACHI programme online, since the information was scattered across the internet. Moreover, the expectations were high, with participants hoping for hands-on training, entrepreneurial insights, and networking opportunities. The application process was generally experienced as clear and accessible.

APPENDIX A3

ALUMNI INTERVIEW GUIDE

ALUMNI (FARMER)

Goal

- What is the current alumni engagement?
- What is needed after the programme?
- What kind of communication is the purpose?

Interview

1. Introducing myself, what am I doing, why the interview
2. Background
    1. Can you tell me about your academic and/or professional background?
    2. Which batch/year were you in?
3. Recruitment and motivation
    1. Do you remember how you first learned about the ACHI programme? (e.g. through friends, social media, university, advertisement)
    2. What information did you seek out before applying, and where did you find it?
    3. What initially attracted you to the programme?
    4. Did the ACHI programme meet your expectations?
    5. What aspects of the programme do you believe were most relevant for your career goals, and which were least relevant, and why?
4. Alumni
    1. What challenges do you face in the farming business?
    2. Do you still receive updates or information about the programme? If so, how/ via which channels?
    3. Did you participate in events or activities as an alumni?
    4. Do you want to stay connected to the programme? If so, how? (e.g. via knowledge sharing, networking with other companies, farmers and alumni etc)
    5. Are there any additional resources or support services that you think would benefit the alumni community?
    6. What types of alumni activities or events would you be interested in participating in? (e.g. workshops, networking events, social gatherings, webinars)

    1. How do you stay informed about new farming techniques, technologies, and other practices?
    2. Are there specific skills or knowledge areas where you feel additional training or eduction would be beneficial?

3. How important do you think formal education and training are for the success of farmers in your community?

ALUMNI (NON-FARMER)

Goal

- What is the current alumni engagement?
- What is needed after the programme?
- What kind of communication is the purpose?

Interview

1. Introducing myself, what am I doing, why the interview
2. Background
    1. Can you tell me about your academic and/or professional background?
    2. Which batch/year were you in?
3. Recruitment and motivation
    1. Do you remember how you first learned about the ACHI programme? (e.g. through friends, social media, university, advertisement)
    2. What information did you seek out before applying, and where did you find it?
    3. What initially attracted you to the programme?
    4. Did the ACHI programme meet your expectations?
    5. How well do you think the programme aligned with your career goals, and why?
4. Alumni
    1. What challenges do you face in your current profession?
    2. Did you participate in events or activities as an alumni?
    3. Do you still receive updates or information about the programme? If so, how/ via which channels?
    4. Are there any additional resources or support services that you think would benefit the alumni community?
    5. Do you want to stay connected to the programme? If so, how? (e.g. via knowledge sharing, networking with other companies, farmers and alumni etc)
    6. What types of alumni activities or events would you be interested in participating in? (e.g. workshops, networking events, social gatherings, webinars)

APPENDIX A4

ALUMNI INTERVIEW ANALYSIS

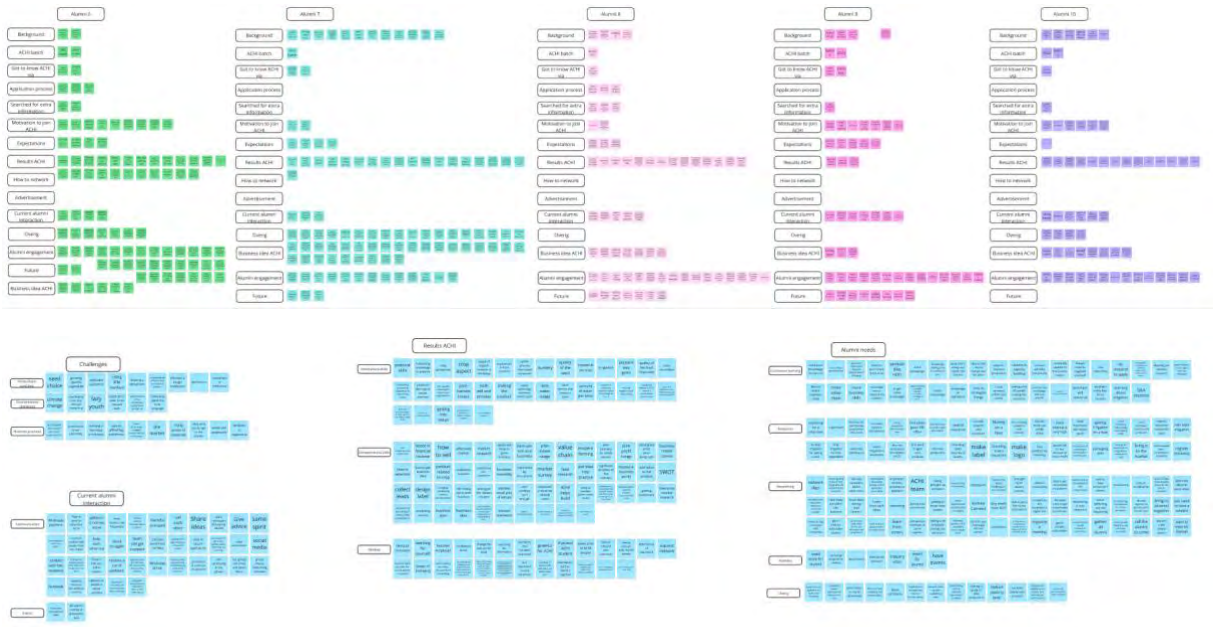
The interviews were conducted with alumni of the ACHI programme to understand their experiences, needs, and perspectives, with the main focus on the post-participation phase.

Methodology

A total of 10 in-depth interviews were conducted with alumni of the ACHI programme. 6 interviewees are still working in the fields, and 4 are currently working in another field. 2 of whom are still doing there national services with the ambition to produce, and 2 are working related to horticulture. Moreover, 6 interviewees were external participants, meaning not a student of KAC already, and 4 were students at the KAC when participating in the programme.

Participant #	Gender	Batch #	Student type	Current employment type
1	Male	1	External	Farmer
2	Female	4	External	Farmer
3	Male	3	External	Non-farmer
4	Male	6	External	Farmer
5	Male	3	KAC	Non-farmer
6	Male	3	KAC	Farmer
7	Female	1	External	Farmer
8	Male	2	External	Non-farmer
9	Male	5	KAC	Non-farmer
10	Female	5	KAC	Farmer

The interviews were transcribed, the quotes were summarised and clustered per subject to identify key themes that reflect the alumni's experiences, needs, and perspectives. These clusters were further refined through iterations and resulted in 4 main themes.



Results

The themes that emerged from the analysis from the alumni perspective are divided into 4 main themes. The main themes are: results of ACHI, alumni wishes, challenges, current alumni interaction. Within these themes, subthemes are identified.

1. Results of ACHI

The theme *Results of ACHI* highlights the impact that it has on alumni. It is focused on different areas, including horticultural skills, entrepreneurial skills, and mindset.

1.1. Horticultural Skills

ACHI has taught alumni with a comprehensive understanding of modern farming practices and crop management leading to improved horticulture outcomes with knowledge of e.g. crop protection, irrigation techniques, and use of fertilization. Moreover, they gained a lot of practical experience in the entire process, from seed selection to harvest, including skills in nursery management. And making use of practices that improve the quality of the crops and minimizing the waste of it. Besides using water-saving technologies so that the production can be throughout the whole year.

"My mom was like, since you started that programme and then have you seen at first we were cultivating 2 sacks. And now we are cultivating, I think 5 or 6." – alumni 10

1.2. Entrepreneurial Skills

ACHI encourages a business-oriented approach to farming, empowering alumni to manage their farms as sustainable enterprises. They do this by focusing on business planning so that alumni are taught to develop strategies using tools like the business

model canvas, and conducting market research, and planning entire farming seasons to optimize profits. Moreover, they focus on value addition, so they are trained in processing crops to enable alumni to reduce waste, add value to their products and cater to diverse markets. Another focus is marketing and sales, and financial management. Alumni improved their ability to estimate for losses, set profit goals, and reinvest in their business leading to better financial outcomes.

"We were taught you need to search for more information. To know how to put that thing like in order or in places the business model canvas that one you need to get the idea." – alumni 5

"Branding is very important because people will know, if they have a quality product and you brand your products. It will sell by itself the way I was saying." – alumni 7

1.3. Mindset

Alumni stated that the ACHI programme has created a transformational shift in their mindset. They stated that it fostered their confidence and adaptability. Alumni state that they have transitioned from traditional farming to a more entrepreneurial approach, focusing on innovation. Moreover, they stated it boosted their confidence and they have a stronger belief in their abilities to succeed, describing themselves as "proud ACHI students". Besides, some graduates have become role models, inspiring others through their successes and demonstrating the benefits of modern farming and entrepreneurship. They are eager to search for new information and implement creative solutions to improve their practices.

"So I realize all these things and archipelago before you start a production as a farmer, you need to do the market research first, before entering into production." – alumni 9

2. Alumni wishes

The *Alumni wishes* theme highlights the expectations, desires, and support systems that alumni of the ACHI programme consider essential for their continued personal and professional development after completing the programme. The alumni want to continue learning, getting resource access, networking opportunities, and meaningful engagement with the programme.

2.1. Continuous Learning

Many alumni emphasized the importance of expanding their knowledge base to stay updated in the evolving field of horticulture. They believe in capacity building and see continuous education as a means to enhance their skills and boost their confidence in applying what they have learned. Examples of topics that they would like to know more about are greenhousing, innovative farming techniques, irrigation, and integrated pesticides management.

"So we need, we need more. That will help us to also improve our production and also the alumni. So if it will be still, we're still having more classes visiting our farmers also and also learning more from the ACHI programs that will help us not only on the field." – alumni 1

"So it will be both for and the knowledge and the people." – alumni 8

2.2. Resources

Resource accessibility emerged as one of the main alumni wishes. After finishing the programme, all alumni have pitched their business plan. Part of those students want to continue with the business, but they don't have the financial resources to start. They have a strong need for a loan or a grant to start their business. Thus, the alumni noted a lack of sustained support post-programme, which they felt could demotivate individuals tyring to implement their business plans.

"We actually don't see the results of it because the support is not there. The idea is great, but you need resources to actually bring it into fruition, so most of them, because that is not provided" – alumni 3

2.3. Networking Opportunities

Networking has frequently mentioned as another great wish for alumni. Alumni highlighted that meeting others in the industry can inspire new ideas, solve problems, and strengthen their business strategies. One participant even called networking a catalyst for the business if you meet the right people. Existing events such as Kumasi Connect were brought up, designed to foster professional connections and motivate alumni to remain engaged with others and to help finding solutions.

"I can also get in contact with those people. Then based on sharing idea and also the program can also give their access to them to become familiar with them" – alumni 6

"Actually, I just wanted to know about the business plan. While they also came up with and I will just learn new ideas about their business plan like how they started and how they are going to end." – alumni 8

2.4. Activities

Some alumni already participated in activities from ACHI, such as a field trip to another farm or a workshop at a company. They expressed the desire for more of such activities to get inspired by successful companies.

"So sometimes you know you are doing well, but when you get to know that ohh wow, these people are really doing great. Then you go there [company visits] and also learn" – alumni 3

3. Challenges

The theme *Challenges* captures the obstacles that alumni of the ACHI programme face after completing the programme. These challenges are diverse and depending on the current practices.

3.1. Business Practices

Alumni are facing challenges in business practices with the focus on financial and operational difficulties. The main challenge is regarding financial constraints, where alumni are struggling with limited access to finances. They cannot make the investments to afford the equipment necessary for operations, such as seeds, fertilizers and other material. Furthermore, limited networking opportunities leave alumni isolated in setting up their business. They have inadequate facilities for processing resulting in reduced product quality and value.

"Right now, the way I was seeing the problem is the market, the input, the cost is high. How can we get help?" – alumni 7

3.2. Horticulture Practices

Challenges related to horticultural practices stem from technical and skill-related issues in farming and production. Alumni face difficulties in choosing the right seeds for specific vegetables and local conditions. Additionally, they have limited knowledge of applying pesticides effectively and adopting sustainable methods like Integrated Pest Management. Adopting modern agricultural practices to enhance yields and improve production efficiency is another challenge alumni are facing. Many alumni expressed the wish for continuous learning to stay updated on evolving techniques and technologies.

"Farmers also need more knowledge about pesticide application. And also using the IPM method to prevent insert, destroying the crops and developing this and also mechanism." – alumni 1

3.3. Environmental Challenges

The theme environmental challenges refer to the external factors that disrupt alumni farming efforts and productivity. They are struggling with the weather patterns and the shifting of the seasons make it difficult to plan and sustain horticultural activities. Weather conditions disrupt the production cycles. Besides, the perceived lack of motivation and interest among youth to engage in manual farming labour exacerbates workforce shortages. Youth often lack confidence, leading to a lower willingness to embrace agricultural opportunities.

"So I had wanted to do it a whole year round, but unfortunately the the river, the moment it rains, it will come and then take everything away." – alumni 4

4. Current Alumni Interaction

The theme *Current Alumni Interaction* captures how alumni of the ACHI programme engage with one another and with the programme after completion. Interaction occurs across multiple areas, including communication platforms, sharing of knowledge and experiences and seeking assistance from the ACHI team.

4.1. Communication

Alumni interaction is facilitated primarily through digital platforms. There is a WhatsApp platform with all alumni, and per batch. On this platform, alumni share problems and updates, and ACHI publishes events and keeps alumni informed about the programme. However, it is described as "not too active", indicating limited participation. Furthermore, alumni are still in contact with peers from their own group in their own batch, where they share struggles, give advice and exchange ideas. Contact between alumni outside of their immediate group is infrequent, limiting broader engagement within the alumni community. Next to that, a small group of alumni is in regular contact with the ACHI staff, seeking guidance or support when needed.

"Then it [the field] was attacked by some insects. I called our director Mr. Darbah, he gave me or directed me as to how I could go and then control them." – alumni 4

"If they want to start a new program, they will put on the platform. If those who want to finish, they will put on their platforms. Yeah, there is a training, I think an alumni training at Accra, they are putting it on the platform also." – alumni 7

"You know my group is still solid. We communicate day in and out. Sometimes we sit down and then we think of how we can raise some capital from us, from ourselves, to like build what we want to do." – alumni 10

4.2. Activities

Alumni participation in activities organized by ACHI serves as a way to stay engaged and inspired. Alumni are invited to attend the graduation ceremony, and some alumni are invited to give motivational talks to inspire current participants. Moreover, selected alumni are personally invited to join industry visits or workshops, which are alumni from the same pool that are still in contact with ACHI staff.

"Because this, Prince called me, we are going to Accra. So will you get time to go with us?" – alumni 10

Conclusion

The alumni interviews show the impact of the ACHI programme and the ongoing needs and challenges faced by the alumni. The programme has equipped alumni with both horticultural and entrepreneurial skills, while also fostering a mindset shift toward self-confidence, independence and innovation. However, alumni expressed a desire for

continued learning opportunities, access to resources, and greater networking support, showing barriers that hinder their commitment to further growth. Furthermore, alumni interaction after the programme remains low, with engagement mostly limited to batch-level communication and limited participation in activities.

This shows that the ACHI programme is valuable for the alumni while also showing opportunities for further support and programme development, particularly in alumni engagement, post-programme learning, and resource facilitation. Addressing these areas could help solidify the ACHI network as an enduring, empowering ecosystem that continues to support alumni well beyond graduation.

APPENDIX A5

PARTICIPANT QUESTIONNAIRE FORM

1. What is your full name?
2. How old are you?
    a. 18-24 years old
    b. 25-34 years old
    c. 35-44 years old
    d. 45-54 years old
    e. 55-64 years old
    f. 65+ years old
3. What is your gender?
    a. Male
    b. Female
4. Where do you live?
5. What is the highest level of educaiton you have completed?
    a. Some University but no degree
    b. Senior Secondary/High School
    c. University Bachelor Degree
    d. Graduate or professional degree (MA, MS, MBA, PhD, Law Degree etc)
    e. Prefer not to say
6. What best describes your employment status over the last three months?
7. Have you followed courses on entreprenurship before?
    a. Yes
    b. No
8. What is your practical experience with entrepreneurship? (do you have experience with setting up your own business? And/or have you worked with a comapny before? Please explain)
9. Have you followed courses on horticulutre before?
    a. Yes
    b. No
10. What is your practical experience with horticulture? (do you have experience with working on a farm? And/or have you managed your own farm before? Please explain)
11. How did you hear about the ACHI programme?
12. How easy was it to find information about the programme before applying?
    a. Extremely easy
    b. Moderately easy

c. Slightly easy
d. Neither easy nor difficult
e. Slightly difficult
f. Moderately difficult
g. Extermely difficult

13. Please explain why it was easy or difficult to find information about the programme before applying
14. What do you want to learn? (the sky is the limit so please write down anything you can think of that you wish to learn related to entrepreneurship and horticulture)
15. What is your motivation for following the ACHI programme? And do you already have a product idea that you would like to work on in the programme? max 250 words)

APPENDIX A6

PARTICIPANT QUESTIONNAIRE ANALYSIS

A questionnaire was conducted to gather information to gather insights about the current participants' initial motivation and expectations regarding the ACHI programme, and the application process.

This questionnaire was designed to gather insights from current participants of the ACHI programme at KAC. Its purpose is to understand their demographics, educational backgrounds, entrepreneurial and horticultural experiences, and motivations for joining the programme. The questionnaire is filled in by 37 current participants, of which 27 male and 13 female participants, with a variety of ages between 18 and 65+.

METHODOLOGY

A total of 37 current participants participated in the study, of whom 24 were males and 13 were females. The majority of respondents were in the age group 25-34 (16), followed by 18-24 (10), 35-44 (8), 65+ (2), and 45-54 (1). None were aged 55-64. Moreover, 13 respondents had completed senior/secondary/high school. 9 had some university education but no degree, 7 a bachelor's degree, 6 graduate/professional degree, and 2 chose not to disclose their educational level.

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	24	64,9%
	Female	13	35,1%
Age	18-24	10	27,0%
	25-34	16	43,2%
	35-44	8	21,6%
	45-54	1	2,7%
	55-64	0	0%
	65+	2	5,4%
Education level	Senior/Secondar/High School	13	35,1%
	Some University but no degree	9	24,3%
	University Bachelor Degree	7	18,9%
	Graduate or professional degree (MA, MS, MBA, PhD, Law Degree etc.)	6	16,2%
	Prefer not to say	2	5,4%

The questionnaire was distributed to all current participants of the ACHI programme at KAC, with the aim of collecting both quantitative and qualitative

data. As the questionnaire was shared with another researcher, only the data relevant to this study is presented in the results. The questionnaire consisted of structured questions covering demographic information, educational background, prior experiences, motivations, and self-assessed entrepreneurial competencies.

Responses were analysed to identify key patterns among the current participants. Quantitative responses are analysed, with complementary qualitative responses to get in-depth insights into the quantitative questions.

RESULTS

Respondents were asked if they had followed entrepreneurship and horticulture courses before. 19 of the respondents have not followed entrepreneurship courses before, and 18 have followed entrepreneurship courses before. Moreover, 25 of the respondents have not followed horticultural courses before, and 12 have followed them before.

Variable	Category	Frequency (n)	Percentage (%)
Followed entrepreneurship courses	Yes	18	48,6%
	No	19	51,4%
Followed horticulture courses	Yes	12	32,4%
	No	25	67,6%

First heard about ACHI

Current participants responded various ways of first hearing about the AHCI programme, highlighting the educational institution, social media platforms, personal network, and Holland Greentech.

School institutes

9 of the participants learned about the ACHI programme through their school. They often referenced to KAC as the primary source of information, including lecturers, instructors, or during campus activities. Specific comments such as "I heard it in KAC", "An instructor from Kwadaso Agric College informed me", and "I was introduced to the ACHI programme on campus " emphasize the important role of the KAC in giving information about the programme.

Social media platforms

10 of the participants learned about the ACHI programme through social media platforms. Current participants mentioned platforms like Facebook, Twitter, and Whatsapp, with many specifically citing posts by Holland Greentech. For example,

current participants stated “Through Holland Greentech Facebook page”, “I heard about ACHI via Holland Green Tech Twitter page”, and “through WhatsApp group link”.

Personal network

12 of the current participants learned about the ACHI programme via their personal network. They mentioned being informed by friends, family members, or previous participants. Examples include “Through a friend”, “I heard it through my son”, and “A friend sent me the flyer to apply since we wanted to start our farming business”.

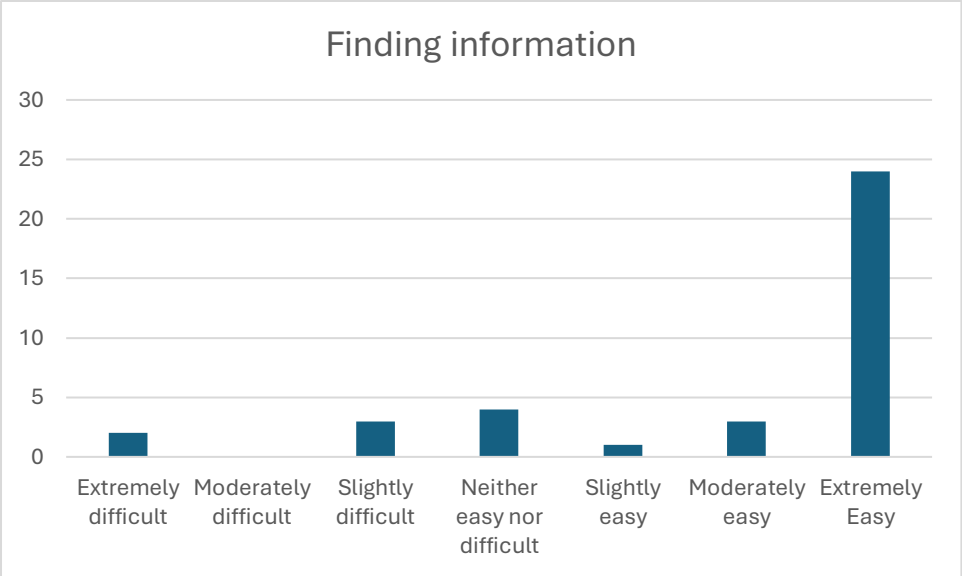
Holland Greentech

6 of the current participants learned about the ACHI programme via Holland Greentech. They mentioned “I heard about ACHI via Holland Green Tech Twitter page”, and “From Mr. Darbah at a training session organized by Holland Greentech”, “Through Holland Greentech Facebook page”.

Easiness of finding information

64,9% of the current participants stated that it was extremely easy to find information about the programme before applying, followed by neither easy nor difficult (10,8%), slightly difficult (8,1%) and moderately easy (8,1%), extremely difficult (5,4%), and slightly easy (2,7%).

In an additional qualitative question, they mostly stated that all the required information was found via word of mouth, which was mentioned by 15 people. Moreover, the current participants found information via social media, where mostly is referred to the access of the flyer. Finally, the participants searched through the internet to get the needed information. However, one stated that “Getting seasoned information about ACHI when there isn’t a proposed website is difficult to source for information”, and “difficult because of luck of advertisement” indicating that not everyone can access the right information, unless someone sends it to you.



Want to learn

The current participants were questioned what they want to learn during the ACHi programme. From this it became clear that most current participants want to learn business and entrepreneurship skills and practical horticulture knowledge. A part wants to combine horticulture and business. Besides, they want to learn about value addition and marketing. Finally, a few want to learn about animal farming.

Motivation

The current participants were questioned what there motivation is to join the ACHI programme. They mostly join the programme so that it will help them to have their own business after. Followed by learning about horticulture to start a business in farming. Some do it to learn about marketing, or want to learn about technology in agriculture.

Conclusion

Current participants reported discovering the ACHI programme primarily through their personal networks or social media, with the flyer serving as the main source of information. However, accessing relevant information appears to depend on knowing the appropriate person, as there is no centralized platform where potential participants can independently obtain information about the programme.

Additionally, a small majority of participants in both the entrepreneurial and horticultural courses stated that they had not taken courses in these areas before. Consequently, much of the content covered in the ACHI programme will be entirely new to them.

The findings also revealed that current participants are particularly interested in acquiring knowledge in entrepreneurship, horticulture, or a combination of both, with some expressing a preference for specific topics within these fields. They emphasized their ambition to apply this knowledge to cultivate vegetables or establish their own businesses.

APPENDIX A7

ALUMNI QUESTIONNAIRE FORM

Titel: Survey for former ACHI students

Introduction:

Dear ACHI alumni,

My name is Laura Jonker and I am conducting research for the ACHI programme as part of my graduation project from the Delft University of Technology. I sincerely appreciate you taking the time to participate in this survey. As a former student of the ACHI programme, your feedback is crucial in helping us improving the programme. The questionnaire will take about 10-15 minutes.

This questionnaire is designed to gather your feedback on your experiences, the skills and knowledge you gained, and how relevant the programme has been to your current career. Your responses will be kept confidential and will be used exclusively to enhance the ACHI programme for future participants. There are no right or wrong answers; every answer is valuable and helps us gain a better understanding.

Thank you for your honest feedback and support. I look forward to learning from your experiences.

Best regards,
Laura Jonker

INFORMED CONSENT

Before you begin, please read the following information:

- Purpose: This survey aims to gather feedback from former ACHI students to help improve the ACHI programme.
- Confidentiality: Your responses will be kept confidential and will be used solely for research and programme improvement purposes. No personally identifiable information will be shared.
- Voluntary Participation: Your participation is entirely voluntary, and you may stop the survey at any time without any consequences.

By clicking "yes" and completing this survey, you consent to participate in this study under the conditions described above.

1. I hereby agree to participate in this survey
    a. Yes

GENERAL INFORMATION

2. At which agricultural college did you participate in the ACHI programme?
    a. Kwadaso Agricultural College (KAC)
    b. Ohawu Agricultural College (OAC)
    c. I haven't participated in the programme
3. What year did you graduate from the horticulture programme? (Since OAC only has 1 batch, this question will be skipped)
    a. Batch 1 (2021)
    b. Batch 2 (2021)
    c. Batch 3 (2022)
    d. Batch 4 (2022)
    e. Batch 5 (2023)
    f. Batch 6 (2023)
    g. Batch 7 (2024)
4. What is your gender?
    a. Female
    b. Male
    c. I'd rather not say
5. What is your current age?
    a. Under 18
    b. 18-24
    c. 25-34
    d. 35-44
    e. Above 45
6. What was your primary reason for enrolling in the ACHI programme?
    a. Interest in horticulture
    b. Desire to start a career in horticulture
    c. Interest in entrepreneurship
    d. Career change
    e. Recommendation from others
    f. Other (please specify)
7. What is your current employment status? (multiple answers possible)
    a. Employed full-time (40 hours or more per week)
    b. Employed part-time (less than 40 hours per week)
    c. Self-employed
    d. Unemployed
    e. Further studies

    f. Other (please specify)
8. In which sector are you currently working/studying? (multiple answers possible)
    a. Agribusiness
    b. Business management
    c. Education
    d. Entrepreneurship
    e. Finance
    f. Healthcare
    g. Marketing
    h. Technology
    i. Other (please specify)

INITIAL AWARENESS OF THE PROGRAMME

9. How did you first hear about the ACHI programme?
    a. Farmer Field Days organized by Holland Greentech
    b. Kwadaso/Ohawu Agricultural College
    c. Social media
    d. Family/friends/colleagues
    e. Former or current students of ACHI
    f. Advertisement (online/offline)
    g. Other (please specify)
10. What kind of information did you initially receive from the programme? (E.g. poster, flyer, email, whatsapp etc)
11. How clear and informative was the initial information you received about the programme?
    a. Very clear
    b. Clear
    c. Neutral
    d. Unclear
    e. Very unclear
12. What additional information would have been helpful during your initial exploration?

DECISION-MAKING AND ENROLLMENT

13. Did you consider other programmes before choosing this one?
    a. Yes
    b. No
14. If yes, what made you choose this programme over the others?
15. What were the most important factors in your decision to join the ACHI programme?
    a. Theoretical courses
    b. Practical training opportunities
    c. Reputation of the institution
    d. Good career prospects

e. Faculty expertise
f. Location of the institution
g. No tuition fees
h. Other (please specify)

16. Were you satisfied with the communication and support provided during the application and enrolment process?
    a. Very satisfied
    b. Satisfied
    c. Neutral
    d. Unsatisfied
    e. Very unsatisfied
17. What could have made the decision-making and application process better for you?

OVERALL EXPERIENCES

18. How satisfied were you with the overall ACHI programme?
    a. Very satisfied
    b. Satisfied
    c. Neutral
    d. Unsatisfied
    e. Very unsatisfied
19. How well did the application process prepare you for what to expect in the programme?
    a. Very well
    b. Well
    c. Average
    d. Poorly
    e. Very poorly
20. What was the most valuable aspect of the programme for you?
21. How did you find the communication during the programme?
    a. Very well
    b. Well
    c. Average
    d. Poorly
    e. Very poorly
22. Please can you explain your answer to the previous question (question 19)?

SKILLS DEVELOPMENT

23. How well did the programme train you with the following skills:
    (Likert scale: 1 =. Not at all, 5 = extremely well)
    a. Theoretical knowledge of horticulture
    b. Practical horticultural skills
    c. Entrepreneurial skills
    d. Problem-solving skills
    e. Leadership skills

    f. Financial skills
24. Which skills or knowledge areas do you feel were most beneficial to your current career?
25. Were there any skills or knowledge areas you felt were lacking or insufficiently covered in the programme? If yes, please give examples
26. Would you recommend the ACHI programme to a brother/sister/friend/colleague?
    a. Yes
    b. Maybe
    c. No
27. What would you tell your brother/sister/friend/colleague about the ACHI programme?

CAREER

28. Are you currently working in a field related to horticulture or entrepreneurship?
    a. Yes
    b. No
29. How often do you use the skills and knowledge gained from the programme in your current job?
    a. Daily
    b. Weekly
    c. Monthly
    d. Rarely
    e. Never
30. Please describe how you have applied the skills and knowledge from the programme in your professional life.
31. Please explain the previous question, which skills and knowledge.
32. What challenges have you faced in applying these skills in the workplace?

SUGGESTIONS FOR IMPROVEMENT

33. Is there anything you wish you had learned during the programme but didn't? If yes, please give examples
34. Were there any aspects of the programme that you found unnecessary or less relevant? If yes, please give examples
35. If you could suggest any changes or additions to the programme, what would they be?

You have reached the end of the survey. I want to thank you for taking the time to fill in this survey and sharing your valuable insights. If you have any questions, feel free to contact me via: l.d.jonker@student.tudelft.nl

Please click on 'Send' to complete the survey.

APPENDIX A8

ALUMNI QUESTIONNAIRE ANALYSIS

A questionnaire was conducted to gather insights from ACHI alumni to assess alumni satisfaction, skill development, and the ongoing relevance of the ACHI programme.

METHODOLOGY

A total of 22 alumni participated in the study, of which 15 were males and 7 were females. Respondents were alumni from all batches of the ACHI programme, from batch 1 (2021) to batch 6 (2023), and were divided into three age categories: 18-24 years (7), 25-34 years (10) and 35-44 years (5).

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	15	68%
	Female	7	32%
Age	18-24	7	32%
	25-34	10	45%
	35-44	5	23%
Batch number	1 (2021)	2	9%
	2 (2021)	2	9%
	3 (2022)	5	23%
	4 (2022)	3	14%
	5 (2023)	7	32%
	6 (2023)	3	14%
Employment status	Full-time	6	27%
	Part-time	1	5%
	Self-employed	5	23%
	Unemployed	2	9%
	Further studies	9	41%
	Other	0	0%
Sector working/studying	Agribusiness	12	55%
	Business management	3	14%
	Education	4	18%
	Entrepreneurship	3	14%
	Finance	0	0%
	Healthcare	2	9%
	Marketing	1	5%
	Technology	3	14%
	Other	1	5%

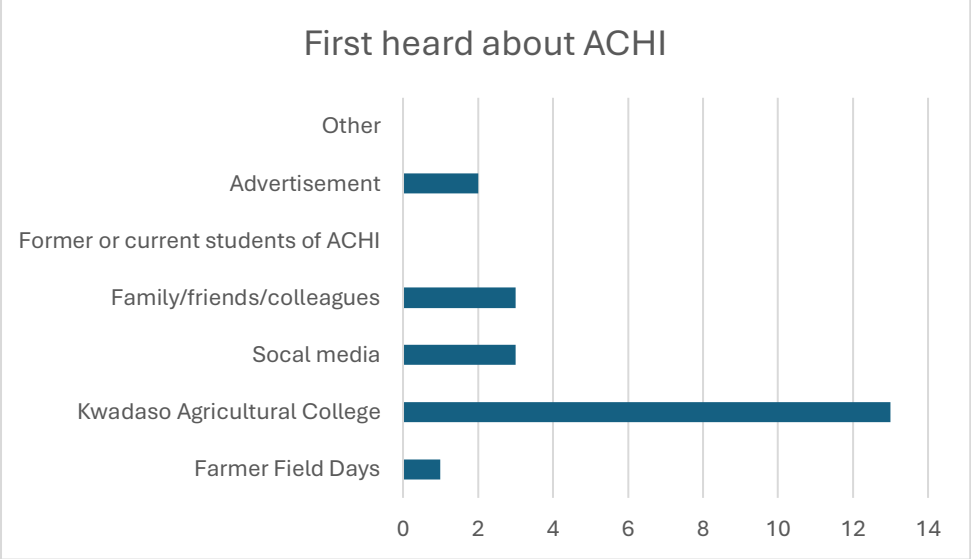
The questionnaire was distributed by ACHI's national coordinator via an online platform where all alumni from the ACHI programme were connected. The platform ensured easy access to participants across different batches. The questionnaire consisted of both closed and open-ended questions, enabling the collection of quantifiable trends alongside in-depth explanations. The responses were collected and analysed to get a holistic understanding of alumni experiences, satisfaction, and the perceived impact of the ACHI programme. Quantitative data highlighted overall trends, with questions about demographics, satisfaction and programme evaluation. While qualitative responses offered in-depth insights into individual perspectives of the perception and experiences related to the programme.

RESULTS

The subjects that the questions are about are: discovery & initial decision making, application & enrolment, programme evaluation, skill development, current profession and application, and programme involvement.

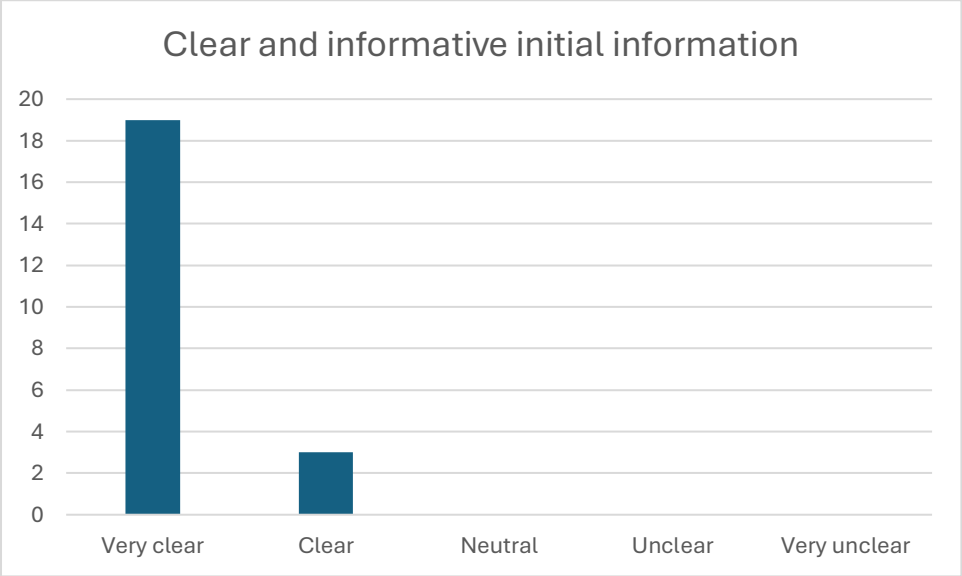
1. **Discovery & initial decision making**

13 of the respondents first heard about ACHI via Kwadaso Agricultural College, followed by friends/family/colleagues and social media. 2 respondents heard about ACHI via advertisement, and 1 respondent via the Farmer Field Day.



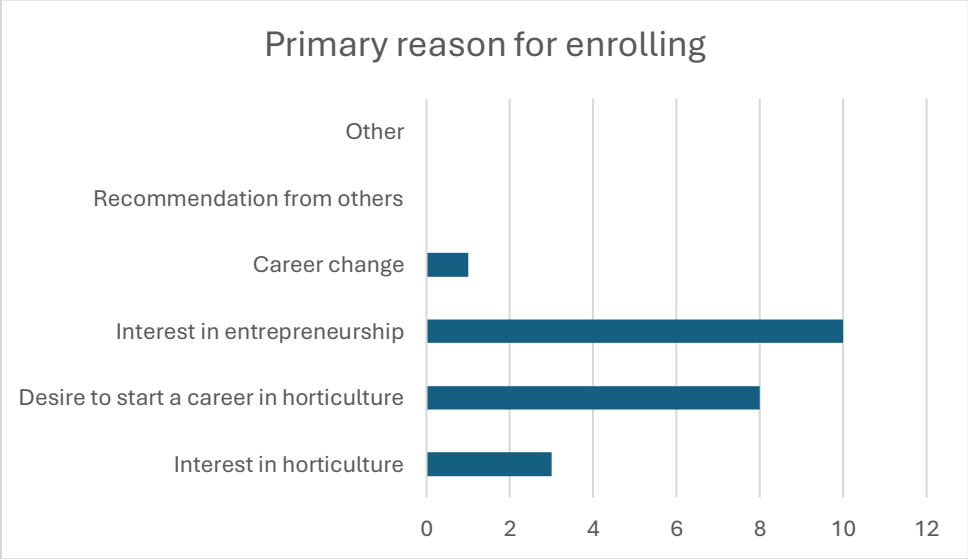
The mean score for how clear and informative the initial information was from ACHI has a score of 3,9 suggests that most alumni found the initial information they received about the programme to be very clear and informative. The median and mode of 4 further indicate that the majority were very satisfied with it. From the open-ended questions, it became clear that the initial information was mostly

mentioned as flyer and WhatsApp or a combination of both, followed by Holland Greentech and Kwadaso Agricultural college. Moreover, it became clear that it would have been helpful to have additional information with detailed explanation on social media or other resources during the initial exploration.

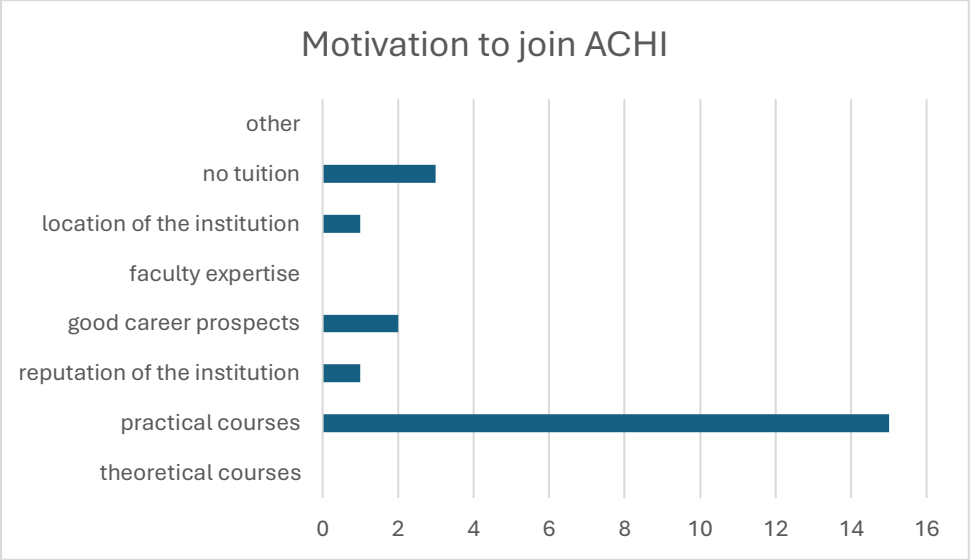


2. Application & enrolment

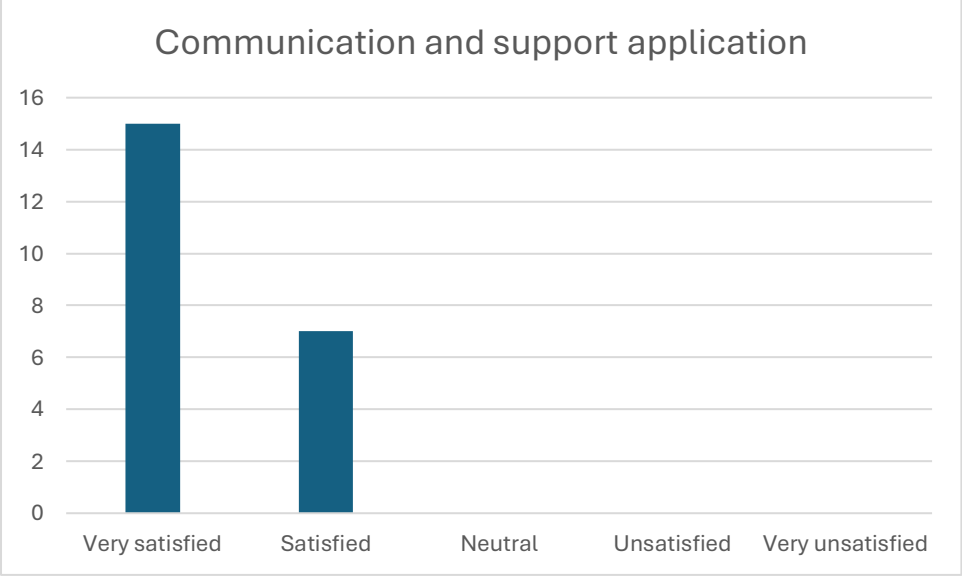
10 of the respondents said that they initially wanted to enrol for the ACHI programme because of an interest in entrepreneurship, followed by the desire to start a career in horticulture for 8 respondents, 3 for an interest in horticulture, and one for a career change.



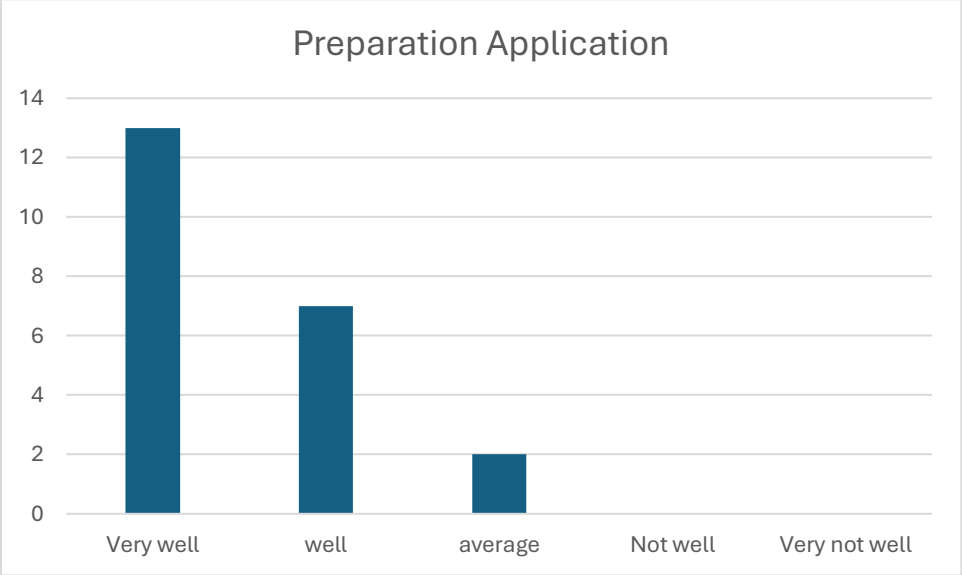
Moreover, the respondents' motivation to join the ACHI programme was for 15 respondents the practical courses, followed by 3 respondents joining because there is no tuition needed, 2 seeing good career prospects in AHCI, and 1 respondent for the location of the institution and reputation of the institution.



With mean score of 3,7 for the communication and support during the application, it suggests that most alumni were satisfied with the communication and support during the application process. However, from the open-ended question, it became clear that it would improve the decision-making and application process better with one-on-one communication and (virtual) interviews.

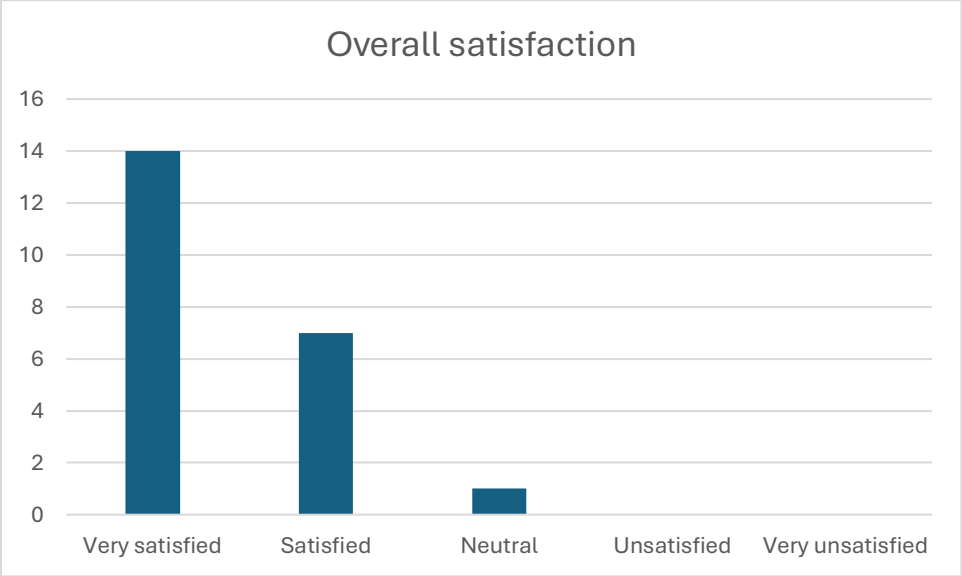


The mean score of 3,5 suggest that the majority of the alumni felt the application process adequately prepared them for the ACHI programme. In the open-ended question, the alumni mentioned that the practicals were the most valuable aspect of the programme, followed by the entrepreneurship aspect.

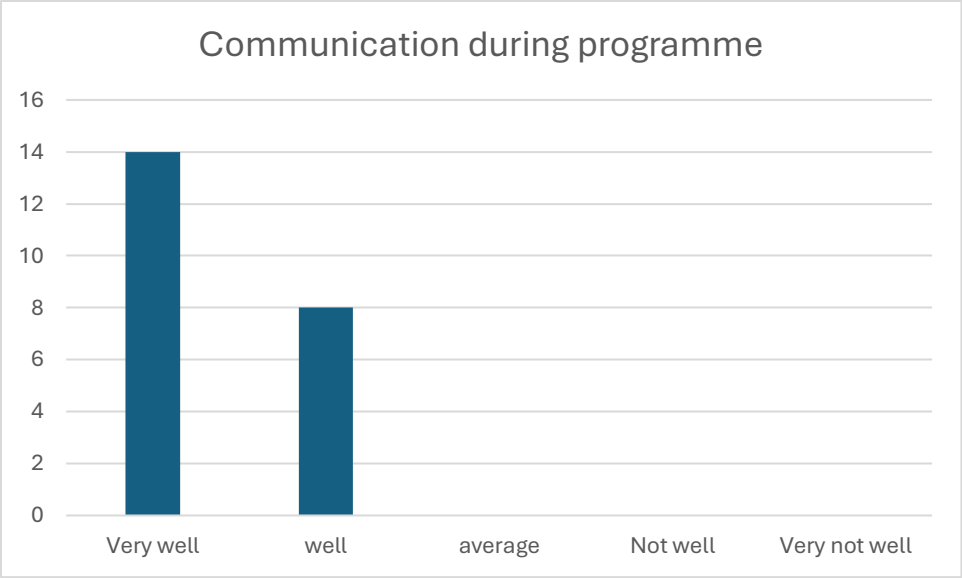


3. Programme evaluation

Overall, the respondents state that they are satisfied with the overall programme. The mean score of 3,6 suggests that most alumni were satisfied with the ACHI programme.



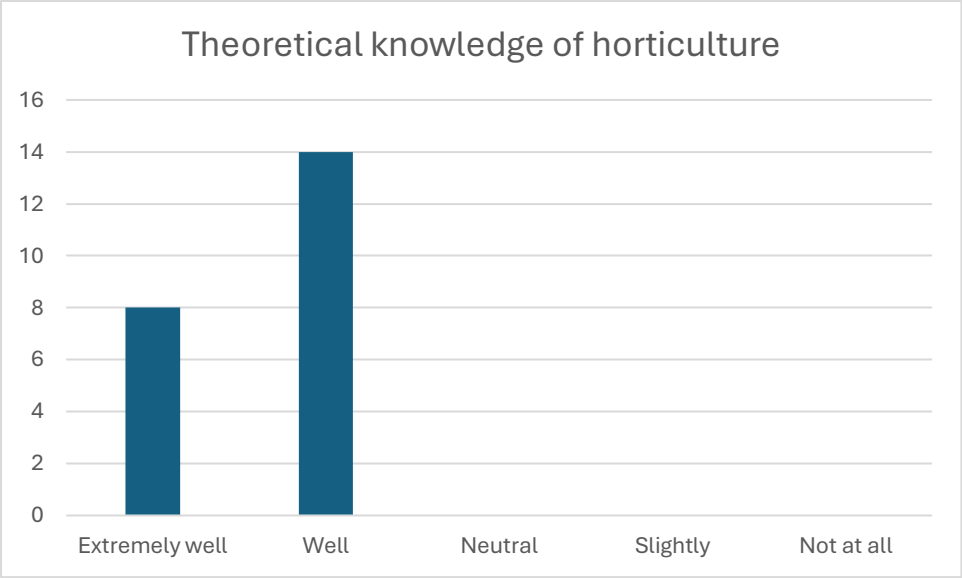
As well as for the communication during the programme. The mean score of 3,6 suggests that the alumni generally felt satisfied with the communication throughout the duration of the programme. From the open-ended questions it became clear that the alumni were satisfied with the way the facilitators communicated well, providing clear explanations and offering support.

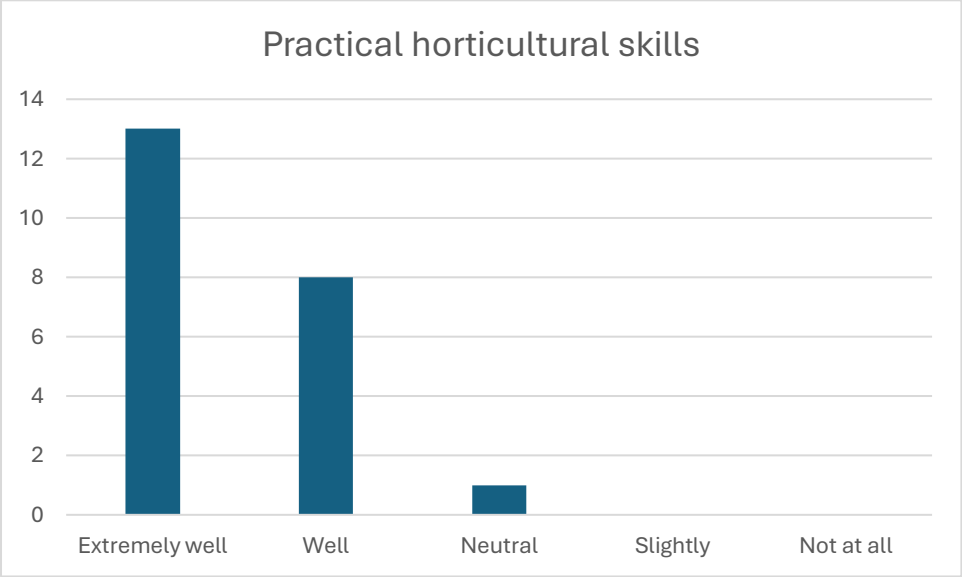


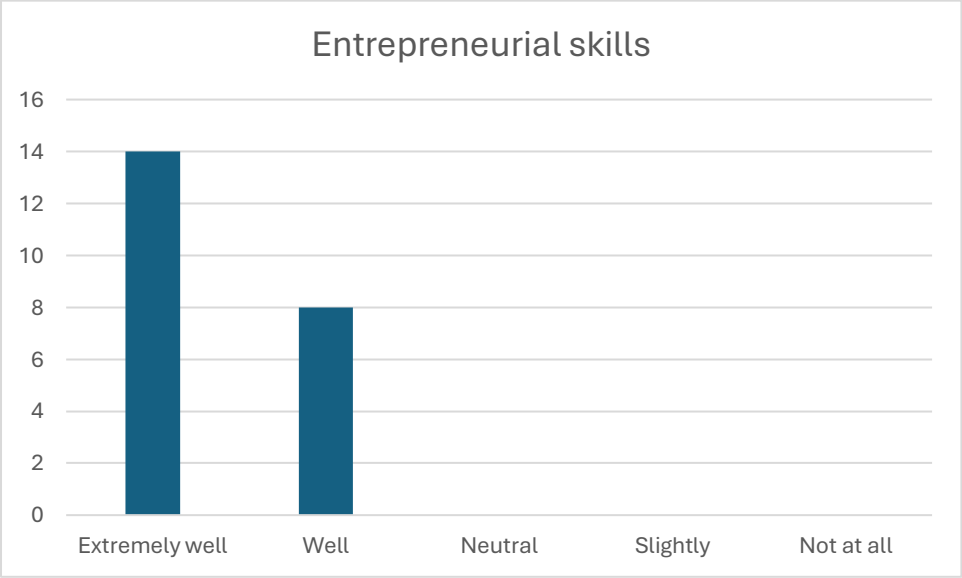
4. Skill development

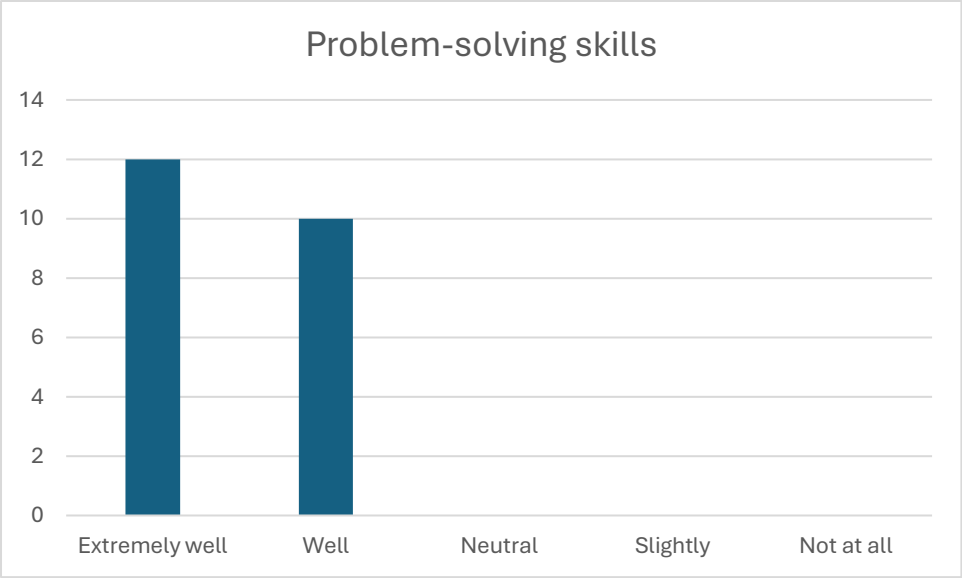
In terms of skill development during the programme, the results show that participants were generally satisfied with the training received across various skill areas. Except for the theoretical knowledge of horticulture with a mean of 4,4, practical horticulture skills and problem-solving skills having a mean of 4,5, entrepreneurial skills 4,6, leadership skills 4,7, and financial skills 4,3. From these skills, the entrepreneurial skills, and horticultural knowledge and skills were mentioned as most beneficial for their current career. The skills that were mentioned were as insufficiently covered in the programme were tools for practical, irrigation installation and greenhouse farming. But with the side note that most areas were covered.

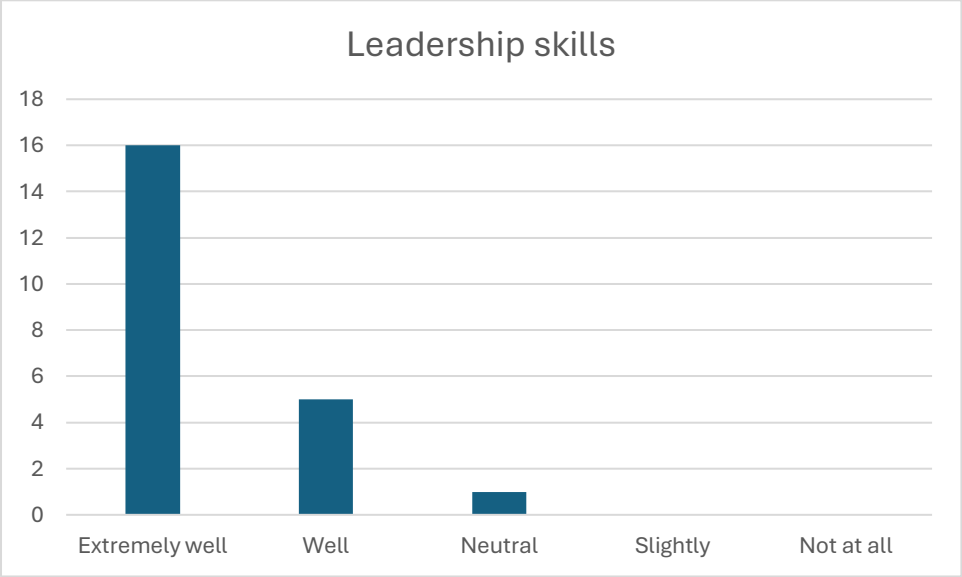
	Theoretical knowledge of horticulture	Practical horticulture skills	Entrepreneurial skills	Problem-solving skills	Leadership skills	Financial skills
	1 = not at all, 5 = very well					
Mean	4,4	4,5	4,6	4,5	4,7	4,3


Theoretical knowledge of horticulture
16
14
12
10
8
6
4
2
0
Extremely well
Well
Neutral
Slightly
Not at all


Practical horticultural skills
14
12
10
8
6
4
2
0
Extremely well
Well
Neutral
Slightly
Not at all


Entrepreneurial skills
16
14
12
10
8
6
4
2
0
Extremely well
Well
Neutral
Slightly
Not at all





5. Current professional relevance & application

All of the respondents would recommend the ACHI programme to family and friends. They stated that the course was very helpful, and good to expand knowledge.

Moreover, the majority of the respondents are working in the fields related to horticulture (64%) and entrepreneurship (73%), which is providing a foundation for alumni to pursue careers in these areas. 59% of the respondents use daily the skills and knowledge learned during the programme, 14% weekly, 9% monthly, 14% rarely, and only 5% never. This shows the skills acquired from the programme is immediately applicable and relevant to their profession. From the open-ended questions it became clear that the specific skills and knowledge they apply in their work is mainly focused on entrepreneurship, such as teambuilding, pitching and

business model canvas, and horticulture knowledge, such as cultivation, pest control and fertilizer management.

Variable	Category	Frequency (n)	Percentage (%)
Working in the horticulture field	Yes	14	64%
	No	8	36%
Working in the entrepreneurship field	Yes	16	73%
	No	4	18%
Using skills and knowledge in current job	Daily	13	59%
	Weekly	3	14%
	Monthly	2	9%
	Rarely	3	14%
	Never	1	5%

6. Programme involvement

When asked about unnecessary or less relevant aspects of the programme, all respondents answered there were no unnecessary topics educated. However, regarding additional topics they wished had covered during the ACHI programme, respondents provided a variety of suggestions that highlight potential areas for improvement. Half of the participants stated to learn in specific agricultural fields beyond the curriculum consisting of snail and catfish production, mushroom cultivation. When it is related to horticulture, seed selection to improve crop quality and yield, and post-harvest preservation methods to reduce waste and add value to the product. Moreover, respondents showed an interest in modernizing the curriculum with advanced farming techniques and tools. Furthermore, the respondents revealed a demand for additional entrepreneurship-focused training, focussed on elevator pitching, business skills and product commercialization.

Moreover, suggestions for changes or additions to the programme revealed that respondents wish more excursions, and that the programme should be expanded so that they are able to gain more knowledge. Besides, they wish for support or sponsorship so that they can start their business after graduating from the programme.

CONCLUSION

The results of the alumni questionnaire show the programme's strengths and opportunities for improvement. Overall, the findings reflect a high level of satisfaction among alumni, both with the programme content and its practical relevance to their careers.

Discovery and initial decision-making took place through informal networks such as educational institutions and social media, particularly WhatsApp. The main initial information was the flyer and generally perceived as clear and informative. Alumni indicated a need for more comprehensive details during the exploration phase, preferably through social media or other accessible channels.

During the application and enrolment process, the majority of alumni were motivated by a strong interest in entrepreneurship and practical learning opportunities. The overall communication and support were positively evaluated, although alumni expressed a desire for more personalised guidance. The programme itself received a positive evaluation, confirming that the programme's delivery was well received. Moreover, the skill development was stated as high satisfaction with the training.

The programme shows professional relevance. The majority of alumni are currently working in horticulture and entrepreneurship, using the skills learned mainly on a daily or weekly basis. All alumni would recommend the programme to others. Expanding the curriculum to cover additional horticultural subjects was suggested, offering more excursions, increasing support for post-programme, and being updated with more modern farming practices and commercialisation tools.

In conclusion, the ACHI programme has made an impact on its alumni by providing practical, relevant, and empowering education. Alumni feedback highlights its core strengths in entrepreneurship, practical learning, and skill development, while also identifying opportunities to further strengthen the programme's content, alumni support system, and long-term value.

APPENDIX B - IDEATION

APPENDIX B1

CO-CREATION SESSION

The co-creation session was conducted to generate new ideas for the opportunities mentioned in the translating pain points into opportunities section, with the focus on the post-participation phase on continued learning, and continued support and engagement.

METHODOLOGY

The co-creation session was conducted in a classroom at the Kwadaso Agricultural College, and involved four ACHI employees, selected due to their active involvement in improving alumni engagement for ACHI. Two of the participants were alumni of the programme themselves, offering a dual perspective: both as former participants and as programme coordinators. The co-creation session was facilitated by the researcher, who adapted the structure in real-time to make it better suitable for the four participants. Certain activities were eliminated, added, or adapted based on the participants' preferences and energy and to improve their engagement with the co-creation session. The structure was as follows:

1. **Introduction**
   Began with short introduction of the overall project, and a summary of the most important research results, concluding with the need for stronger alumni engagement as a design focus.
2. **Ice-breaker**
   To help participants get into the right mindset and reconnect with the topic personally, each person answered the question:
   "What is the most memorable experience you had with an alumnus?"
3. **Main question**
   The main challenge was introduced:
   "How can we bring alumni together?"
4. **Round 1 – Brainstorming one-by-one**
   Each participant was asked to come up with one idea, write it down, and share it with the group. However, participants felt the pressure and adapted accordingly to Rapid Ideation.
5. **Round 2 – Quick brainstorming**

The format was changed into a more anonymous brainstorming round where everyone wrote down as many ideas as possible. After 3 minutes, all the individual ideas were discussed.

6. **Round 3 – Enrichment brainstorming**
   To build on each other's input, each participant got 1/3 of the ideas to elaborate or add to those ideas. Three rounds of two minutes each took place, so that each participant could add to all the ideas. Ideas were encouraged to be enriched with different perspectives.
7. **Voting**
   The planned clustering activity was skipped due to time and engagement. Instead, participants proceeded directly to voting. Each participant selected their top three ideas and explained their choices. This helped identifying the most promising opportunities and directions.

RESULTS

A variety of ideas for improving alumni engagement were generated. For the one-by-one and quick brainstorming round, the following ideas were generated:

During the enrichment brainstorming, the following ideas were added:

All the final ideas were analysed and grouped into four main themes to identify opportunities and directions: skill development, network event, ACHI's visibility, and alumni association.

Skill development

To support ongoing learning among alumni, bimonthly online seminars were suggested, focused on practical topics such as pitching to investors, export

readiness, and cash flow management. These sessions could be led by experts or experienced alumni and should be adapted to identified weaknesses within alumni groups. To deepen impact, each batch could be given specific tasks related to personal and group development. In addition to online seminars, in-person workshops at KAC and visits to institutions like KBI were suggested.

Network event

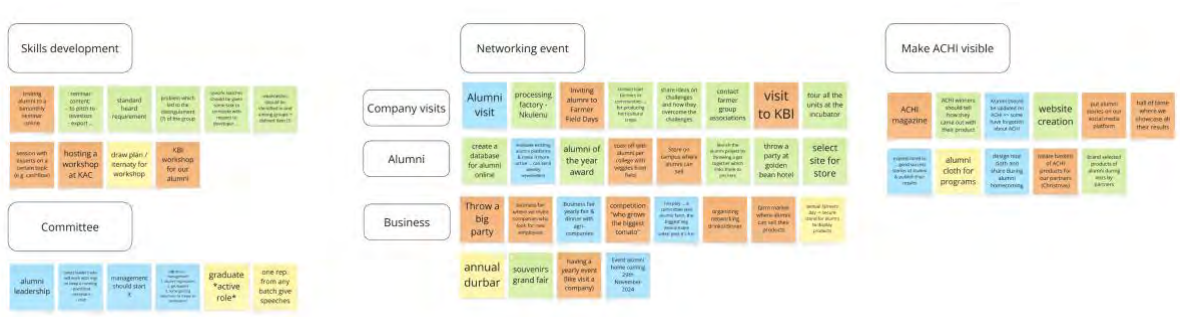
Networking was suggested to strengthen the alumni community. Suggested activities included farm visits, alumni visits to lead farmers, and connections with farmer group associations to share challenges and solutions. Moreover, business fairs, where alumni could network with companies, and farm markets for exposure and selling alumni-grown products were mentioned. Community-building events such as cook-off per college using vegetables from the field, fun competitions like 'who grows the biggest tomato', and farm visits filmed and posted as entertainment were mentioned. Moreover, larger gatherings like alumni dinners, networking drinks, and parties, including yearly business dinner with agribusinesses, and an annual alumni homecoming were mentioned.

Visibility

Visibility of ACHI and its alumni is focused on by suggesting that ACHI should update alumni about all its activities and progress. Moreover, showing other alumni, a website, the creation of an online alumni database, and weekly newsletters to keep everyone informed were suggested. To highlight alumni successes, ideas included producing an ACHI magazine, creating a hall of fame, and sharing alumni stories on social media. Recognition was mentioned, such as the 'alumni of the year' award, and showcasing ACHI's winner stories. Additionally, suggestions were made to create branded alumni clothing for events, offering ACHI product gift baskets to partners, e.g. Christmas, and branding alumni products during visits by partners.

Alumni association

To keep engagement efforts sustainable, a formal alumni committee was mentioned, appointing leaders who would coordinate with the ACHI management, a president, secretary, and vice president. The ACHI management is encouraged to support the creation of the committee by facilitating alumni registration, leader selection, and the development of guiding documents to establish an alumni association. The role of graduates will also be active; each batch could select a representative to give speeches and participate in decision-making.



CONCLUSION

The co-creation session generated four main themes: skill development, network events, committee, and visibility. Suggestions for skill development included bi-monthly online webinars, hands-on workshops, and targeted training sessions to help alumni stay current with evolving practices. Network events focused on building connections through company visits, networking dinners, farm markets, and larger business fairs that bring together alumni and agribusinesses. These events also contribute to ACHI's visibility by offering platforms for alumni to showcase their businesses and sell products. Visibility was further addressed through ideas to share alumni stories via ACHI's communication channels. Lastly, to ensure continuity for alumni engagement, forming an ACHI alumni committee was proposed with representatives from all batches to take responsibility for alumni-related activities and initiatives.

APPENDIX B2

BRAINSTORMING SESSION

Introduction

The brainstorming session was conducted to generate new and creative ideas to improve alumni engagement and information provision for the ACHI programme. By involving participants who were not previously engaged with the project, the session aimed to uncover unbiased perspectives and original directions for development.

METHODOLOGY

The brainstorm session was held in a quiet room, and involved 2 participants and the researcher who participated, selected due to their lack of involvement in the project. The brainstorm session was facilitated by the researcher and took 90 minutes. The structure was as follows:

1. **Introduction**
   Began with short introduction of the overall purpose and structure of the brainstorm session. Information about the ACHI project was intentionally withheld to keep the participants' input as open as possible.
2. **Round 1 - Reversed brainstorming**
   Reversed brainstorming was used to think creatively about an existing problem. The participants had 3-5 minutes to come up with ideas for the following question:
   "How can we make the situation of accessible information worse?"
3. **Round 2 - Reversed brainstorming**
   A second reversed brainstorming was conducted with the following question, having 3-5 minutes to come up with ideas:
   "How can we make the situation of connecting with each other worse?"
4. **Round 3 - Clustering Round 1 & 2**
   The ideas from both reversed brainstorm sessions were collected and grouped into common themes. This clustering helped to clarify the challenges.
5. **Round 4 - Brainstorming solutions**
   The participants were asked to generate solutions for the individual and themes. Each participant was given time to independently come up with as many solutions as possible. After this first part, two rounds of two minutes each then took place, in which participants got each other's ideas in front of them and were asked to elaborate or add to them. Ideas were encouraged to be enriched with different perspective.

6. Round 5 - Clustering solutions
   The ideas from both reversed brainstorm sessions were collected and grouped into common themes. This clustering helped to clarify the solutions.
7. Introduction project
   After the idea-generation, the researcher introduced the ACHI project and its goal in more detail. This allowed participants to put context to their earlier ideas within the scope of the actual programme.
8. Round 6 - Quick brainstorming
   In the final brainstorming round, participants were asked to think specifically about overarching solutions for alumni engagement and improved information provision within the context of the ACHI programme. The two participants were collaboratively coming up with ideas, that were written down by the researcher.

RESULTS

The reversed brainstorming rounds revealed various ways in which access to information and connecting with others could be negatively impacted. These were grouped into thematic clusters.

Accessible information

The reversed brainstorming revealed several ways in which accessible information can be hindered, which were grouped into five main themes: unclear route of information, no access to information, sharing only offline information, difficult information, vandalism.

Unclear route of information

The participants described situations where the route to finding information is made unclear. This included making users click through multiple web pages, linking information through endless redirects, or using too many different communication channels, to cause confusion. Misinformation and contradictory details across platforms also added to this, making it difficult to know which source to trust. Furthermore, suggested was information that is only available behind login pages or on select platforms, with limited accessibility.

No access to information

Physical or digital distance from the information was another suggestion. Examples included putting information in exclusive or remote physical locations, requiring people to travel far, or only sharing it in places not everyone has access to. Several ideas also described information being withheld by not publishing it online or making it available only during specific hours.

Only offline sharing

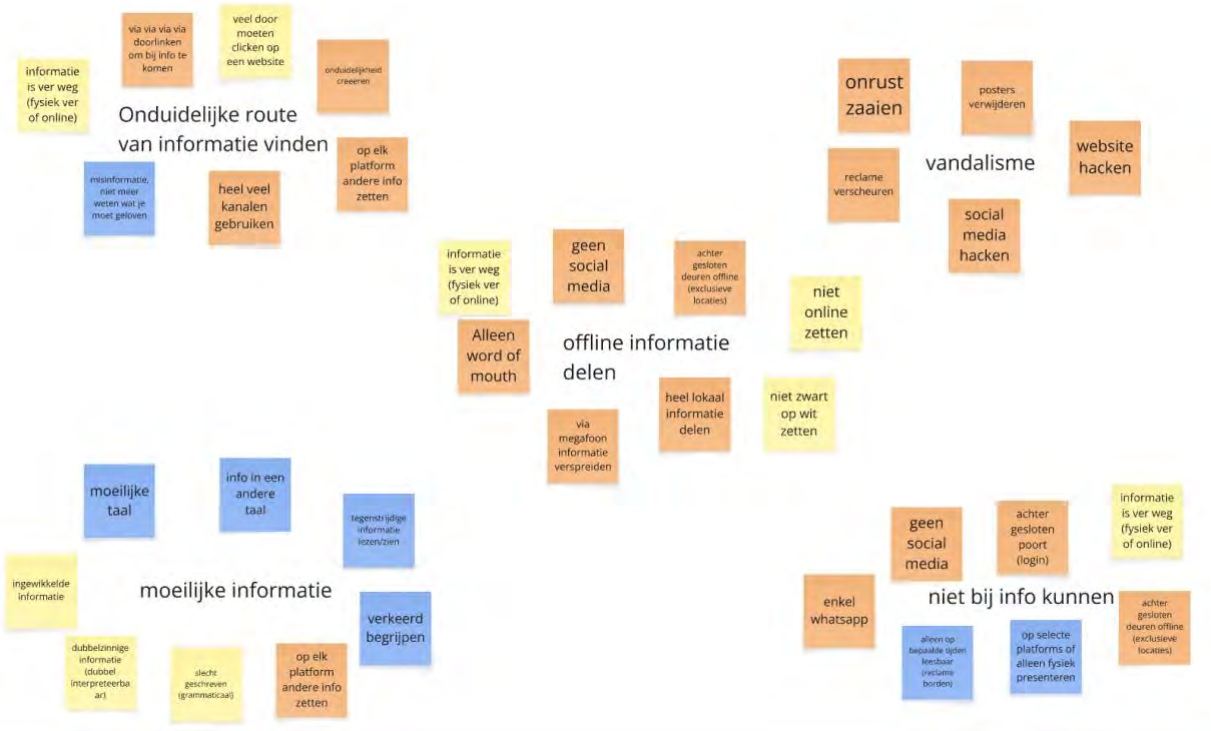
Spreading information by only passing it on through informal or local offline methods. Suggestions included relying solely on word-of-mouth, using megaphones, or distributing information only within tight-knit circles. Information might be presented only at specific local events, behind closed doors, or shared within exclusive communities, limiting who could access it.

Difficult information

Another way to reduce accessibility was making the content itself hard to understand. This included using complicated language, foreign languages, or double meanings that could be misinterpreted. Other barriers included poor grammar or unclear phrasing, which further reduced the clarity of the message and left room for miscommunication or misunderstanding.

Vandalism

Active disruption was also mentioned. Ideas included physically removing or destroying posters, tearing down advertisements, or vandalising communication materials. Digital sabotage was also considered, such as hacking websites or social media channels to spread confusion or make information inaccessible.



Connecting with others

The reversed brainstorming revealed several ways in which the connection between people can be hindered, which were grouped into four main themes: being offline, physical isolation, social avoidance, and creating non-verbal distance.

Being offline

Being unreachable through common communication channels is seen as a barrier to social connection. This includes not having a phone, internet access, or social media accounts. Even when someone has a phone, deliberately choosing not to use it, stepping out of group chats, or deleting programme communication channels can cut off opportunities for engagement. Language barriers were also mentioned, highlighting how speaking a different language can effectively make someone offline in an online social world.

Physical isolation

Living in remote or quiet areas makes it harder to naturally connect with others. Ideas like 'living on top of a mountain' or 'in a quiet environment' were shared to express how physical distance impacts social interaction. Constantly moving and not sharing one's location adds another layer of disconnection, as does simply staying home or not participating in community programmes.

Social avoidance

People might actively avoid social interaction in behaviour, including not attending events, opting for home delivery instead of going out, and withdrawing from social spaces.

Creating non-verbal distance

Preventing others from reaching out via wearing earphones, sunglasses, or maintaining closed-off body language is a way to non-verbally create distance. These non-verbal signals communicate a disinterest in interaction, creating distance when people are physically present.

Creating solutions

Solutions were produced for the reversed brainstorming clusters aiming to improve these. These ideas were grouped into four main solution themes: accessibility and comprehensibility, digital communication, in-person communication, and security and privacy

Accessibility and comprehensibility

Clear and inclusive communication starts with using simple, jargon-free language. Suggestions included hiring a language specialist to check texts, avoiding complex or fancy words, and opting for straightforward formats like infographics, images, or videos instead of only text. A consistent layout and structure, including visual cues and large headers were recommended to improve scannability, e.g. the 3-30-300 message principle. Moreover, placing all important information in a place that is easy to navigate, minimizing the need for unnecessary clicks, and including clear navigation. Other ideas included posting a visible website link in bios on social media and ensuring messaging were easy to understand for a broad audience.

Digital communication

Using accessible and open online platforms enhances the reach. Suggestions included creating a basic, clean website without heavy animations, making social media accounts, and setting up a YouTube channel for visual content. Important posts should be pinned on social media, and each platform should link to a central

source of information. Using relevant search terms and hashtags would improve searchability, while establishing a dedicated social media team could maintain consistent output. The focus was on visibility, accessibility, and ease of navigation across digital touchpoints.

Security & privacy

Mentioned were ways to protect information from vandalism, misinformation, and unauthorised access. Ideas ranged from taping posters securely to encrypting digital information. Recommended was avoiding authentication barriers where possible, while still safeguarding communication through clear visual branding and structure.

In-person communication

Face-to-face interaction was suggested, particularly for building trust and reaching those less active online. Ideas included going door-to-door for promotion, organising social events, distributing flyers and/or posters, and personal invitations and actively approaching people during events. To stimulate participation, offering a prize for the person who recruits the most participants was suggested.

Overarching ideas

To improve access to information and strengthen connections in the context of the ACHI programme, the ideas were collected and grouped into the four main themes: community building, sharing experiences, sharing expertise, network opportunities.

Community building

Establishing a buddy system, where alumni would be paired with new participants to offer guidance and support, was suggested to improve community building. A ‘phone tree’ system was proposed for regular check-ins within the alumni community, fostering ongoing communication. Sharing contact information openly was seen as important to enable direct connections and collaboration.

Sharing experiences

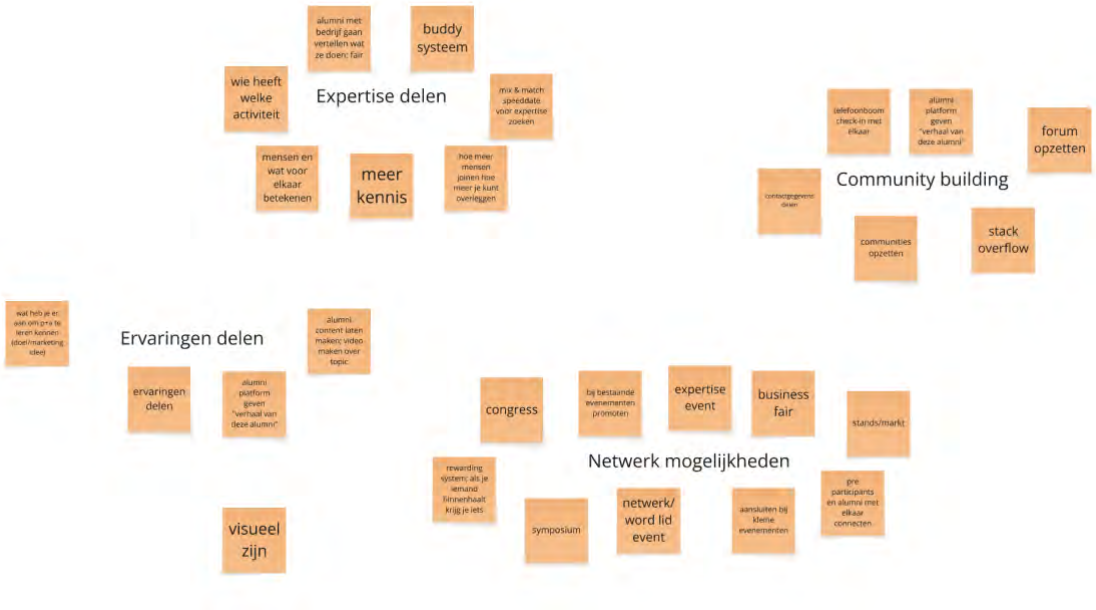
Suggested was to encourage alumni to share their personal stories and experiences to inspire others and make the programme more relatable. This can be a section on an alumni platform, e.g. the story of this alumnus, where individuals highlight their journeys and lessons learned. In addition, alumni could create content to share their experiences on specific topics or challenges, such as short videos. These stories would serve as accessible and engaging ways to communicate what ACHI is about, especially to potential participants.

Sharing expertise

Sharing practical knowledge can build value within the ACHI network. Suggestions included hosting expertise events or meetups focused on specific topics, where alumni and participants can exchange knowledge. A speed date style 'mix & match' session was proposed to help individuals find people with the expertise they are looking for. Creating an online alumni platform or forum was also mentioned, providing a space for sharing personal stories, exchanging expertise, and discussing relevant topics. This platform could function like a 'stack overflow' style Q&A community, encouraging members to seek and offer advice.

Network opportunities

Various event-based ideas were suggested to grow and strengthen the ACHI network. Organising alumni-led events such as fairs, congresses, or symposia could provide opportunities to showcase projects and connect with others. Suggestions were also to participate in existing community events to raise awareness and recruit new members. To further encourage engagement, a reward system was suggested where individuals who successfully bring in new participants receive recognition or a small reward. Visual presence at events and online was seen as important to increase ACHI's recognisability and perceived professionalism.



CONCLUSION

The brainstorm session showed barriers and opportunities for enhancing alumni engagement and improving information provision for the ACHI programme. Through reversed brainstorming, participants were able to creatively identify pain points and develop targeted solutions from an unbiased perspective.

It revealed that issues related to information access often come from unclear communication routes, limited availability, and the use of inaccessible formats or platforms. Similarly, disconnection between individuals was linked to physical and digital isolation, social avoidance, and behaviour that discourage interaction. The ideation led to a variety of practical and creative solutions, which were grouped into four main themes: community building, sharing experiences, sharing expertise, and network opportunities. Those themes show opportunities for ACHI to strengthen its alumni network thorugh personal connection, mutual support, and knowledge exchange.

APPENDIX C - WEBSITE

APPENDIX C1

WEBSITE FOR USER TEST 1

About ACHI

ACHI is a 4-month course focused on horticulture. The course has twice-weekly classes and group work assignments offered by experts from Kwadaso Agricultural College, Delft University of Technology (from the Netherlands) and Holland Greentech. You will gain entrepreneurial skills and practical skills in farming, and you will be introduced to technological innovations within horticulture. All those learning activities help you in becoming more entrepreneurial in horticulture with a focus on horticulture as a business.

After finishing the course, you will receive a certificate and you will have all the knowledge and skills that are needed to continue in horticulture.
The 4-month course is held two times a year, and is a free course. ACHI is hosted on the 5 agricultural colleges in Ghana consisting of Damongo, Ejura, Kumasi, Ohawu and Wenchi Agricultural College.

Applying for the next ACHI batch is possible via the registration form. On our social media, you can find if and when the registration form will be opened.

Theory

Practicals

Entrepreneurship

Our goals

1. To stimulate the economic development in the horticulture sectory by stimulating green growth and by tackling (youth) unemployment through skills development

2. To promote climate smart practices in Ghana for food security and combat environmental and climate challenges related to horticulture

3. To generate business opportunities and build a very relevant network and improved business climate for the Dutch actors that are active in the Ghanaian horticulture sector.

ACHI is being teached at 5 different regions in Ghana:
- Ejura (Ashanti)
- Damongo (Northern)
- Kumasi (Ashanti)
- Ohawu (Volta)
- Wenchi (Bono Ahafo)

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Projects

Here, you can explore the different projects done by past groups over the years. Each project shows the unique ideas and hard work of each group, as well as the skills and knowledge they built during the program. Take a look at these past projects to see what each group achieved.

Batch 3
JDEVS Company Limited

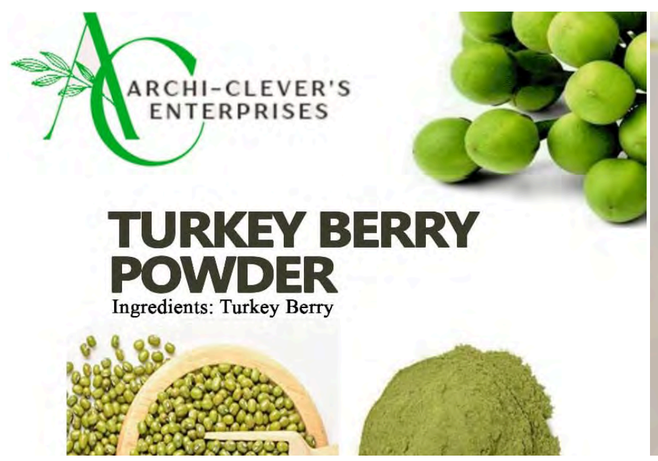
JDEVS Company Limited created the MushTea. MushTea is a natural refreshing beverage made from mushrooms with three different flavours: mushroom with ginger, mushroom with hibiscus, and mushroom with lemon grass.

Batch 4
Green Adventures

Green Adventures is a consultancy service that is focusing on consulting on everything that is needed for homegardening.

Batch 6
Bafiba

Bafiba created a personal care product, a cucumber shower gel and body cream. Because cucumber is very good for the skin. The Cu shower gel can be used to wash the body, and the Cu cream can be used to apply on the body.



Batch 6
Archi-Clever's Enterprises

Archi-Clever's Enterprises created a food supplement, turkey berry powder. Turkey berry is a nutritious plant, but takes a lot of effort to process. With the turkey berry powder, you can easily use it in for example your soup or stew. Besides, you are not dependent on the growing season.

Batch 4
Plantain Noodles

Plantain Noodles created a new way to produce noodles. They introduced noodles made from plantain. Plantain is a local product, and therefore possible to produce noodles from it and reduce prices.

Batch 6
Farm Investment Consultancy Services

Farm Investment Consultancy Service (F.I.C.S.) is a consultancy service that assists investors in horticulture, from knowledge to equipment. They secure land from chiefs, have partnerships for mechanizations, rent out machinery and many more.

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Social media

Facebook

X

Alumni

Here, you can find past graduates from our programme, learn about their backgrounds, and explore their professional journeys. Our alumni bring their knowledge and skills to various fields, continuing to make an impact in their communities.

Filter option

Felicia
Batch 5

Gerald
Batch 2

Kwame
Batch 4

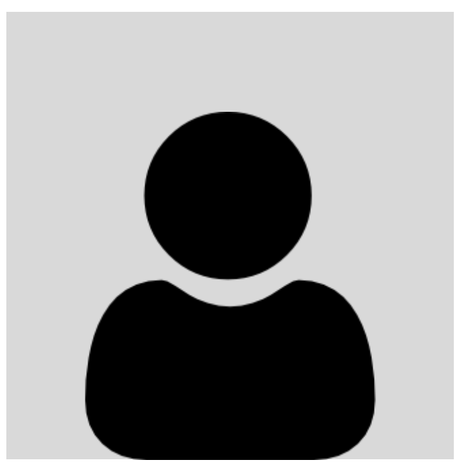
Ella
Batch 7

Doris
Batch 1

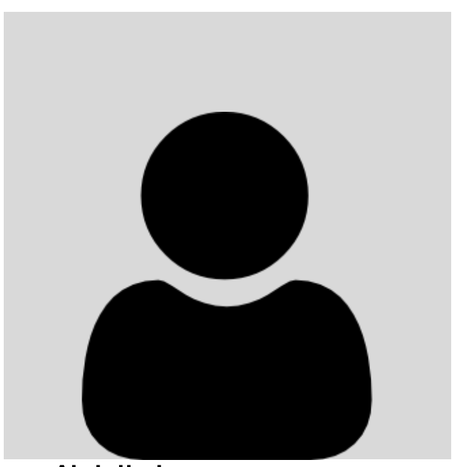
Emmanuel
Batch 3

Josephine
Batch 6

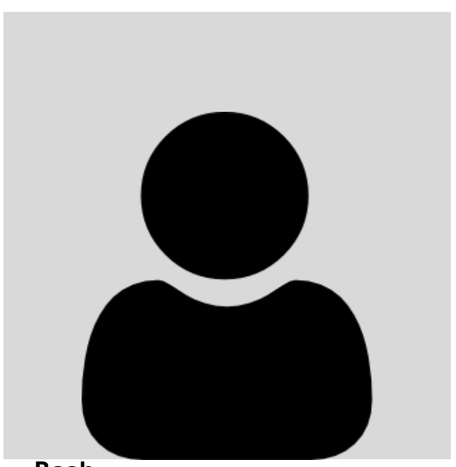
Jeff
Batch 2



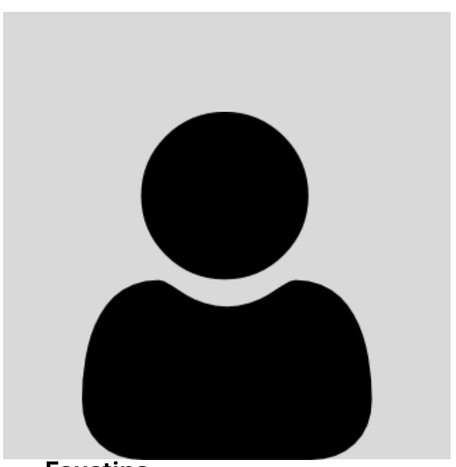
Chasitity
Batch 7



Abdulhak
Batch 4

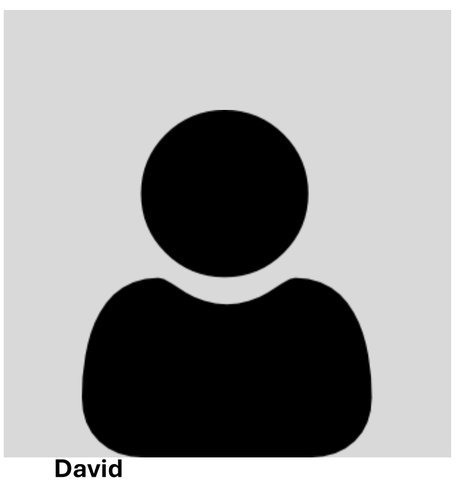


Bash
Batch 1

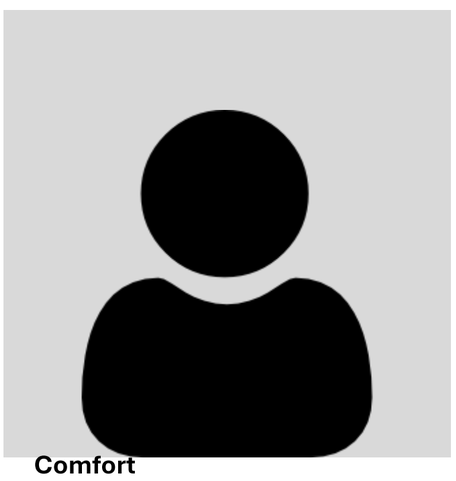


Faustina
Batch 5

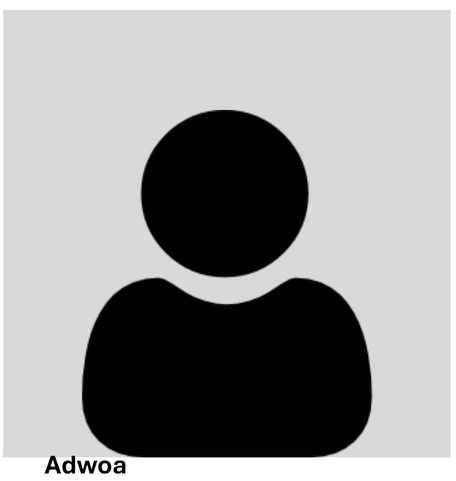
Grace
Batch 3



David
Batch 6



Comfort
Batch 2



Adwoa
Batch 4

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Meet our alumni!

Felicia
Batch 5

Project during ACHI

During the ACHI course, Felicia has created the business Bafiba. They focused on personal care products in combination with the usage of cucumber. Therefore, they came up with the cucumber shower gel.

Current job

Felicia has always been passionate about vegetable farming. Before starting with the ACHI programme, Felicia was having a small plot where she grew vegetables, pepper and cucumber. After finishing the ACHI programme, she continued farming and applied all the new knowledge on her field. She even sold cucumber per kilo for the first time. According to Felicia this is because:

“The quality of the seed and the fruit was very nice. Because I didn't let the cucumber on the ground. I made some support, everything was up. The fruit was clean and nice. Someone came and bought it by kilo”

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APPENDIX C2

USER TEST 1 - QUESTIONNAIRE FORM

CONTENT

1. **Relevance**
    a. According to you, which information is most important?
        i. Entrepreneurship
        ii. Goal of ACHI
        iii. Information on the alumni
        iv. Information on the curriculum
        v. Information on the former projects
        vi. Practicals
        vii. Theory
    b. According to you, which information is least important?
        i. Entrepreneurship
        ii. Goal of ACHI
        iii. Information on the alumni
        iv. Information on the curriculum
        v. Information on the former projects
        vi. Practicals
        vii. Theory
    c. (open) Which information are you missing on the website?
2. **Comprehension**
    a. How easy is the information “about ACHI” to understand?
        i. Very easy
        ii. Easy
        iii. Average
        iv. Not easy
        v. Very not easy
    b. How easy is the information “Our goals” to understand?
        i. Very easy
        ii. Easy
        iii. Average
        iv. Not easy
        v. Very not easy
    c. How easy is the information “Projects” to understand?
        i. Very easy
        ii. Easy
        iii. Average

iv. Not easy
v. Very not easy

d. How easy is the information “Alumni” to understand?
    i. Very easy
    ii. Easy
    iii. Average
    iv. Not easy
    v. Very not easy
e. How easy is the information “Felicia” to understand?
    i. Very easy
    ii. Easy
    iii. Average
    iv. Not easy
    v. Not very easy

LAY-OUT

1. How visually appealing is the website’s layout?
    a. Very appealing
    b. Appealing
    c. Neutral
    d. Not appealing
    e. Very not appealing
2. How much do you think the look of the website suits the ACHI programme?Very much
    a. Very much
    b. Much
    c. Neutral
    d. Not much
    e. Not very much

NAVIGATION

1. **Ease of use**
    a. How easy was it to navigate through the website?
        i. Very easy
        ii. Easy
        iii. Neutral
        iv. Difficult
        v. Very difficult
    b. Did you encounter any difficulties in understanding the website’s structure or layout?

i. Yes (please specify in ‘others’)
ii. No
iii. Others (open answer)

2. Structure

a. How clear was the structure of the website?
i. Very clear
ii. Clear
iii. Average
iv. Unclear
v. Very unclear

APPENDIX C3

USER TEST 1 ANALYSIS

To validate the first iteration of the ACHI website, a user test was conducted in Ghana with 6 users. This early prototype was designed as a basic, functional version of the website.

METHODOLOGY

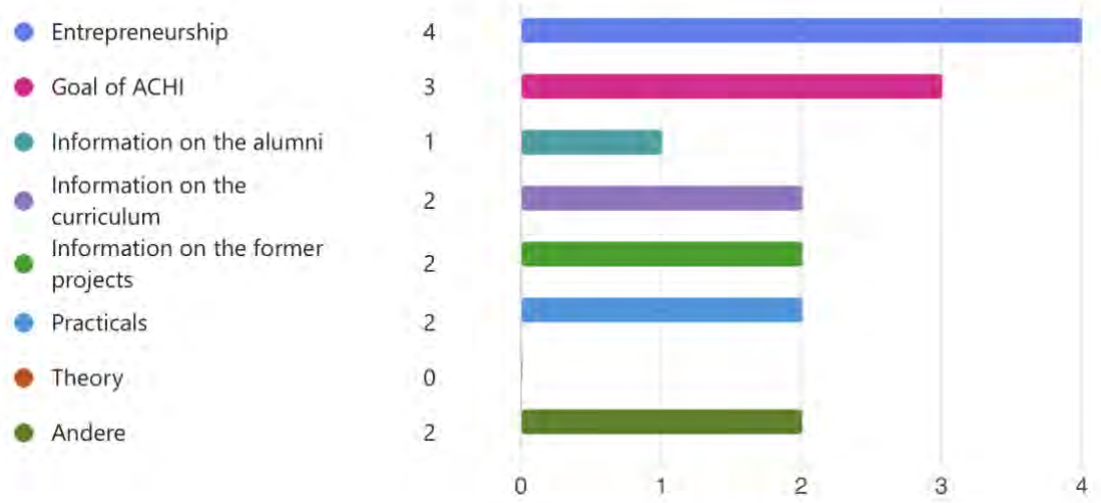
The test involved 6 participants in total, including 3 males and 3 females, with a mix of 2 current participants and 4 alumni. This composition allowed for feedback from both prospective and former students of the ACHI programme.

Participants were asked to interact with the website and complete an evaluation survey addressing three key areas: navigation, content, and visual layout. The survey included both closed and open questions to assess ease of use, structure clarity, content relevance and completeness, and overall aesthetic appeal. Special attention was given to how well participants could find and understand core information. The feedback gathered in this phase formed the foundation for subsequent iterations of the website, ensuring that design decisions were grounded in real user experiences and expectations.

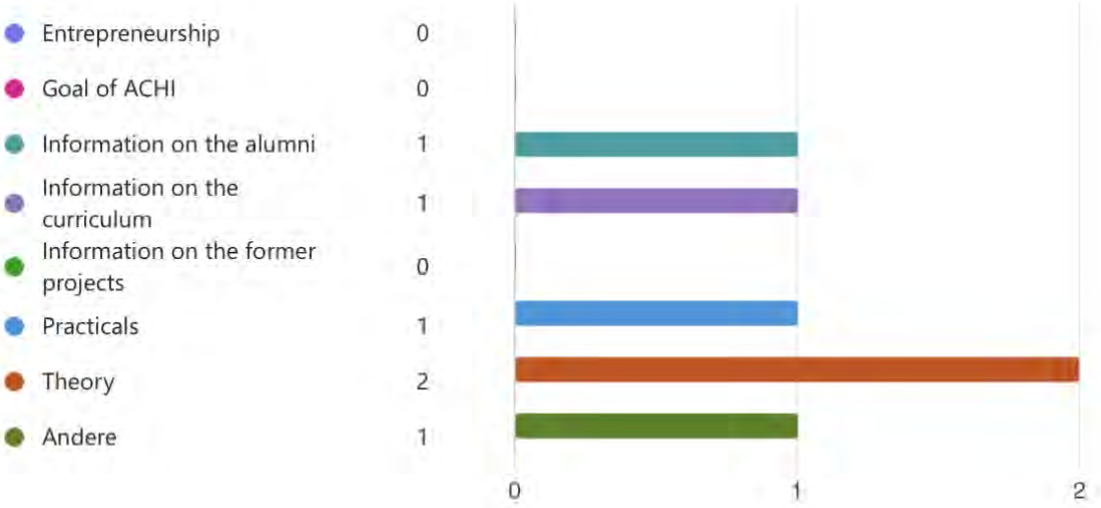
RESULTS

Questionnaire

After the user went through the website, they filled in the questionnaire. From this, it became clear that the users see the Entrepreneurship as the most important information, followed by the goal of ACHI, with information on the curriculum, information on the former projects, and practicals as third place, and lastly information on alumni, feedback from alumni, and year of establishment.



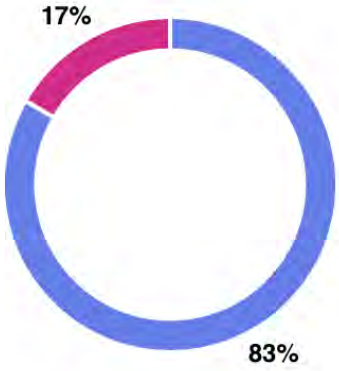
Next, according to the users the theory was least important, followed by information on alumni, information on curriculum, and practicals. On user stated that everything is important.



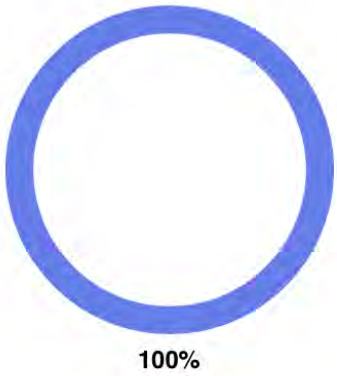
Users said that the progress made since the establishment and the donors or partners of the programme are missing, together with there should be more pictures or a video, and there should be feedback on the alumni. One user stated that nothing is missing.

Furthermore, the information on About ACHI and Our Goals were stated as very easy. Projects was for one person somewhat not easy, but for the others very easy or somewhat easy. For alumni, it was 50% answering very easy and 50% somewhat easy, as well as Felicia.

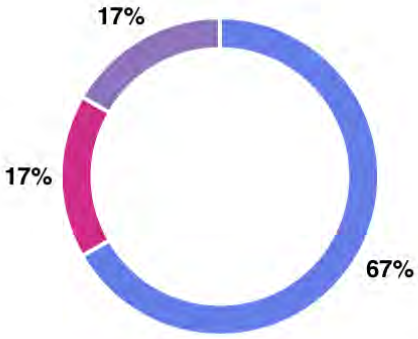
Very easy	5
Somewhat easy	1
Neutral	0
Somewhat not easy	0
Very not easy	0



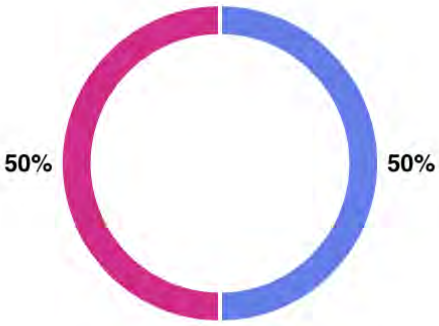
Very easy	6
Somewhat easy	0
Neutral	0
Somewhat not easy	0
Very not easy	0



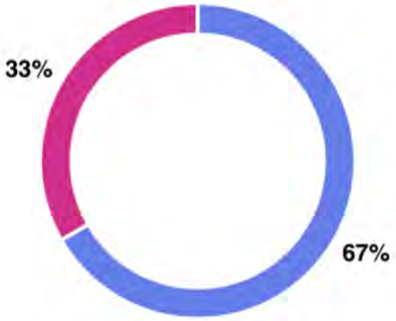
Very easy	4
Somewhat easy	1
Neutral	0
Somewhat not easy	1
Very not easy	0



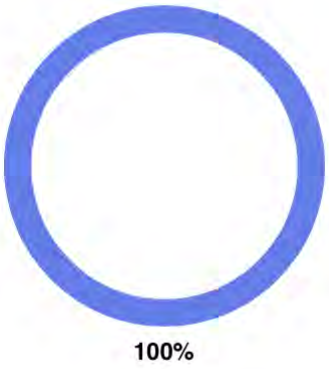
Very easy	3
Somewhat easy	3
Neutral	0
Somewhat not easy	0
Very not easy	0



Very easy	4
Somewhat easy	2
Neutral	0
Somewhat not easy	0
Very not easy	0

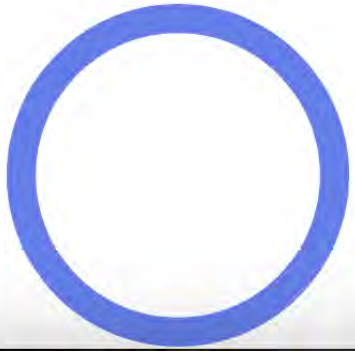


Very appealing	6
Somewhat appealing	0
Neutral	0
Somewhat not appealing	0
Very not appealing	0



The website was graded as very appealing by all the participants, as well as the looks of the website suiting the ACHI programme.

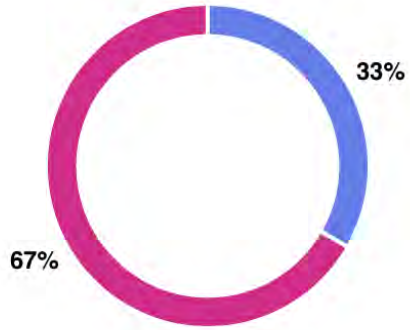
Very much	6
Much	0
Neutral	0
Not much	0
Not very much	0



The navigation through the website was mostly stated as easy, and for some as very easy. From observations, one user did not understand the menubar. He explained that the websites that he knows, the menubar is on the right sight of the page. Moreover, the participants all wanted to use the keyboard to navigate, which was

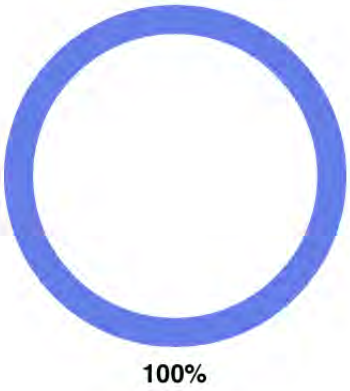
not possible in the Figma environment for this prototype.

Very easy	2
Easy	4
Neutral	0
Difficult	0
Very difficult	0



Finally, the structure of the website was stated by all users as very clear.

Very clear	6
Somewhat clear	0
Neutral	0
Somewhat unclear	0
Very unclear	0



The results from the interviews (together with the observations) have been thematically clustered for a clear overview of the results and for recurring patterns. It is organized into the overarching themes: content, visual engagement, structure. This thematic structure provides a more strategic understanding of how the website communicates its content, how it is experienced, and where there are opportunities.

1. *Structure*

In terms of structure, users expressed mixed experiences with the website's layout and navigation. One user found the menu bar unclear, especially its position on top, which felt unfamiliar to them. Some were unsure whether clicking the menu bar would lead them to another page. Others expected to navigate the site using keyboard arrows or the scrolling on the side, both not possible in the Figma environment, indicating that the current structure might not match common browsing habits. There was also a desire for more intuitive navigation features, such as the ability to go back easily when on a subpage. One user attempted to click on the left of the title to return, which suggested a need for clearer backward navigation cues. Additionally, some users preferred shorter, separate pages instead of long scrolling ones, as this makes information easier to digest. There was also a

request for a search function, particularly to look up specific names of alumni, highlighting the need for more user-friendly information access tools. Overall, the users stated that the structure of the website was simple.

2. *Content*

When looking at the content, users frequently mentioned that the site lacks completeness in certain areas. Several important topics were perceived as missing or underrepresented. For instance, one user wanted to learn more about the history and year of establishment of the programme, another user gained clearer insights into the roles and contributions of partner organizations. The section on partners was consistently noted as being too limited, with little to no information on what these partners do or how they support the programme. There was also a desire for content related to the graduation process, including images or short summaries of graduation events. Moreover, users pointed out that key aspects of the programme, such as its goals, curriculum modules, and entrepreneurial practices, were not sufficiently explained. The roles of lead-farmers were also seen as underemphasized. Several participants noted that field trips, alumni involvement, and upcoming events should be more prominently displayed. However, the homepage was convering topics like horticulture, locations, duration, and contact information.

3. *Visual engagement*

In the area of visual engagement, there was overwhelming appreciation for the current use of visuals, alongside a desire for more. Many users stated that photos make the site more engaging and encourage them to read further. Pictures showing teamwork, field activities, graduation events, and classroom settings were all recommended. Several users suggested adding short videos to better convey what the programme does, including practical fieldwork, classroom interactions, and even testimonials from participants. In general, the users wanted to see more proof that the programme is real and impactful. The homepage header was praised for clearly communicating what the programme is about.

CONCLUSION

The user tests and questionnaires revealed that the website for the ACHI programme is generally well received, particularly in terms of its overall visual appeal and clear structure. While the structure is clear, the interactive experience could be improved by aligning more closely with common digital habits and expectations. In terms of content, the feedback highlighted several important gaps. While the goal and entrepreneurial aspects of ACHI are seen as most important, users noted that key areas such as information about partners, graduation, alumni feedback, lead farmers, and past projects were missing or underdeveloped. The

visual engagement is seen as one of the strongest aspects of the website. Users resonded positively to the use of images and expressed desire for more visual content.

Overall, the website communicates its essence effectively but would benefit from deeper and more dynamic content, improved navigation, and expanded use of visuals to enhance both usability and trustworthiness.

APPENDIX C4

WEBSITE FOR USER TEST WITH DUTCH PEOPLE

Grow with us!

Become our next generation climate smart farmer with the free four-month course on horticulture and entrepreneurship.

- Educational programme
- Theoretical knowledge
- Practical skills
- Entrepreneurial skills

About the ACHI programme

The ACHI programme is a four-month training initiative created to equip participants with theoretical and practical skills in horticulture and entrepreneurship. Combining hands-on experience with theory and entrepreneurship, the programme empowers individuals to build successful horticultural businesses, enhancing food security, and contribute to a more resilient agricultural sector.

The programme is open to aspiring and existing farmers, agripreneurs, and professionals looking to expand their knowledge in climate-smart horticulture. Candidates are motivated individuals eager to develop their expertise, improve their business understanding, and create sustainable opportunities in the horticulture value chain.

Participants gain essential skills in modern farming techniques, post-harvest management, and financial planning. They also benefit from mentorship, access to industry networks, and practical training that prepares them to scale their businesses, improve market access, and drive innovation in the horticulture sector.

Learn more

OUR MISSION

Enhancing economic development in Ghana's horticulture sector by stimulating green growth and tackling youth unemployment.

OUR VISION

Climate-smart practices securing food, tackling environmental challenges, and create opportunities for Ghanaian & Dutch businesses.

OUR VALUES

Promoting sustainable, innovative horticultural practices to empower individuals and foster collaborations.

ACHI process

The ACHI programme is held at 5 different locations: Kwadaso Agricultural College (Kumasi), Ohawu Agricultural College (Ohawu), Wenchi Agricultural College (Wenchi), Ejura Agricultural College (Ejura), and Damongo Agricultural College (Damongo). Applying to the programme is possible by contacting the right college (contact us), followed by sending your details and motivation. Motivated individuals with a passion for horticulture and entrepreneurship are chosen to join the programme. Only limited spots are available.

During the four-month training, participants gain hands-on experience in sustainable farming, and business development, equipping them with the skills to build successful agribusinesses. Upon graduation, they receive a certificate, marking the start of their professional journey in the horticulture sector. As part of the ACHI alumni network, graduates continue to receive support, collaborate with industry peers, and explore new opportunities to grow their businesses and impact their communities.

1. **APPLICATION** – Contact the college project manager and by submitting your details and motivation to the right school.
2. **PROGRAMME** – Participants receive hands-on training in horticulture and entrepreneurship, two days a week.
3. **GRADUATION** – The groups pitch their projects. After they are completing ACHI, participants receive a certificate.
4. **ALUMNI** – Graduates become part of ACHI's alumni network, gaining connections to further grow their ventures.

Learn more

Success stories of Alumni

Fourteen years ago, Rollande and her sister started farming. Joining ACHI was a game-changer by learning the skills to improve her practices – including selling her crops per kilo for the first time.

Learn more

Vivian is balancing a full-time HR career with her passion for mushroom farming. During ACHI, she gained the skills to plan her farming activities strategically, created an innovative product - mushroom tea.

Learn more

Find our contact details by clicking on contact us. Here you find all 5 different colleges, Holland Greentech, and TU Delft.

Are you interested in our programme, looking to collaborate, want to learn more about ACHI, or simply want to connect? We would love to hear from you. Reach out to us through the details below, and let's grow together!

Contact us!

Contact details

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About Us

Partners

The ACHI programme thrives through the collaborations with key partners – Kwadaso Agricultural College, Holland Greentech Ghana, and University of Technology Delft (the Netherlands) – who bring expertise in agricultural education, technology, and research. Each partner plays a crucial role in supporting the programme's mission to enhance employment opportunities, food security, and sustainable farming practices in Ghana. By combining the strengths, they ensure that ACHI participants receive high-quality training, access to modern horticultural tools, and valuable industry connections.

Kwadaso Agricultural College

Kwadaso Agricultural College is located in Kumasi, southern Ghana, and is an institution that focuses on training and educating individuals in the field of agriculture focusing on both theoretical and practical skills. At the institution, they do not only teach the full-time students at the college but also provide the ACHI programme for both their own students and external participants.

The teachers of KAC are teaching the modules of the ACHI programme, and are trained via training-of-trainers by the Holland Greentech agronomists on the practical field skills and by the Delft Centre for Entrepreneurship and the Kumasi Business Incubator on the entrepreneurial skills to be able to teach the various modules and work on the demo plot.

Holland Greentech Ghana

Holland Greentech is an organisation that works in Sub-Saharan Africa, focusing on the next step of horticulture by offering quality horticulture inputs and services to vegetable growers. With offices in 12 different countries - Niger, Senegal, Rwanda, Zimbabwe, Burundi, Uganda, Zambia, Kenya, Tanzania, Ghana, Benin, and Burkina Faso – HGT focuses on increasing productivity, food security and climate-smart practices through knowledge sharing and skill development. Within the ACHI programme, Holland Greentech provides agronomists for practical field skills and supports farmers with a wide range of products and necessary training. Holland Greentech connects lead farmers with local farmers and students, fostering a collaborative learning environment that goes both ways.

Technical University Delft (The Netherlands)

The Delft University of Technology is mainly focusing on entrepreneurship within the module. In collaboration with Kwadaso Agricultural College and Holland Greentech, Delft University of Technology evaluates and revises the curriculum, trains the teachers, and plays a crucial role in the training-of-trainers modules. Through its Delft Centre for Entrepreneurship and Delft Global Initiative, Delft University of Technology works closely with the Kwame Nkrumah University of Science and Technology (KNUST) and the KNUST Kumasi Business Incubator to enhance the entrepreneurial modules of the programme.

Lead farmers

Lead farmers are connected to the ACHI programme to connect theory with practices. They are a group of highly skilled farmers, trained by Holland Greentech, that demonstrate good farming practices and serve as an example for other farmers by organising farmer field days. The effect of the lead farmers and farmer field days are significant, because they focus on the horticulture sector outside of the school and provide a boost to the existing horticulture sector and accelerating the transition to better agricultural practices. Additionally, lead farmers inspire students by showing them the impact of innovative and sustainable farming techniques.

Collaborations

Beyond its core partners, ACHI collaborates with a range of companies that contribute to the programme's success by providing expertise, resources, and market opportunities. These collaborations bridge the gap between education and industry, ensuring that participants gain practical experience and access to essential tools for modern farming.

By partnering with diverse companies, ACHI strengthens the agricultural value chain and empowers young professionals with the knowledge and networks needed to thrive in the industry.

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1 APPLICATION

CONTACT THE ACHI COLLEGE MANAGER → HAND IN ALL THE DESIRED DOCUMENTS → GET SELECTED FOR THE PROGRAMME

PROGRAMME 2

HORTICULTURAL THEORY & PRACTICE

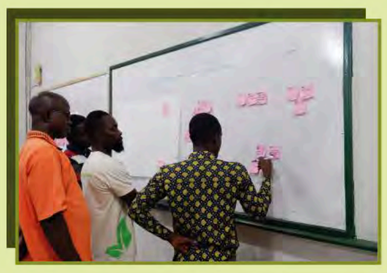
The programme provides a comprehensive combination of theoretical and practical training in horticulture, equipping participants with the essential skills of the full life cycle of the plant. The courses cover key aspects of modern horticultural practices, ensuring that graduates are well-prepared to apply their knowledge in real-world agricultural settings. The course consists of:

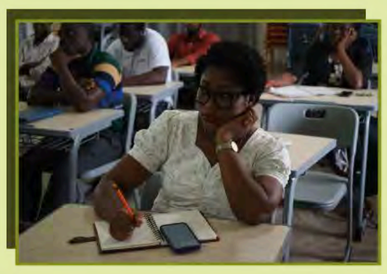
- Seed choice, sowing & nursery
- Land preparation & fertilization
- Irrigation, soil & water management
- Integrated Pest Management
- Protected horticulture
- Cultivating crops

ENTREPRENEURIAL KNOWLEDGE

Next to the horticultural topics, the ACHI programme equips participants with essential entrepreneurial skills to help them establish and grow succesful agribusinesses. The programme covers key aspec ts of business development, from identifying opportunities to managing finances and marketing products effectively. The topics consist of:

- Teamwork
- Entrepreneurial opportunities
- Value proposition
- Business model
- Sales pitch
- Finance
- Logistics
- Storage, processing & packaging





FIELD TRIP

To apply the learnings in class with the real horticultural settings, the participants go on a field trip to a company. These visits provide valuable hands-on exposure to commercial farms, agribusinesses, and research institutions, allowing participants to observe best practices, modern technologies, and innovative farming tecniques in action.

During these excursions, they engage with experienced farmers and industry experts, gaining insights into real-world challenges and opportunities in horticulture and agribusiness. They will deepen their understanding of the agricultural value chain and strengthen their practical knowledge.

3 ALUMNI

COMMUNITY

As an ACHI alumnus, you join a supportive community, gaining connections, network opportunities, and continued access to resources for growth in horticulture business.

EVENTS

ACHI hosts events where alumni connect, share experiences, and explore new opportunities in agribusiness, while learning new topics.

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Meet our alumni: inspiring stories

Our alumni are turning knowledge into impact, shaping the future of horticulture in Ghana. Their journeys highlight the importance of education, entrepreneurship, and innovation. Explore their stories and learn how they improved their business with the knowledge gained from ACHI.

Rollande’s journey

Fourteen years ago, Rollande and her sister started farming. Over the past years, they turned three acres of land into their primary source of income supporting her family and putting her son thorugh university. Joining ACHI was a game-changer by learning the skills to improve her practices – including selling her crops per kilo for the first time.

Learn more

Vivian’s journey

Vivian is balancing a full-time HR career with her passion for mushroom farming. During ACHI, she gained the skills to plan her farming activities strategically, optimizes the production, and created innovative products resulting in supplements and the mushroom tea.

Learn more

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From passion to business: Vivian's journey

Vivian is a proud alumnus of ACHI and a passionate worker. She is working full-time as an HR specialist from Monday to Friday, and works part-time in the evenings and during the weekends as a mushroom farmer and at her company, creating tea made and supplements from the mushroom.

"They were gonna run a four-month course, and it was actually free. I was like, really? Because it costs a lot to learn these courses."

Vivian's journey into farming wasn't a sudden decision. Before joining ACHI, she already started with mushroom farming due to her interest and passion. Her elder sister, who knew about this passion, came across an ACHI programme advertisement and encouraged Vivian to apply. Even though the programme is about vegetables, the idea of a free four-month course that combined theory and practical skills in vegetable farming intrigued her. With an open mind and willingness to learn, she went for it.

Beyond 'just' farming

With no specific expectations, Vivian embraced the programme as an opportunity to expand her knowledge. However, what she gained went beyond vegetable farming. The programme transformed her perspective on horticulture, showing her that farming could be more – it could be a sustainable and profitable business.

"So you could actually sit down and then plan your whole business for a whole season, even get to know your profits margins or profit range and your losses range before you even get into the farming season."

One of the biggest eye-openers for Vivian was the business side of horticulture. Through lessons on entrepreneurship, business model canvases, and SWOT analyses, she learned how to structure her farming operations strategically. Prior to the programme, she didn't have a specific planning for her mushroom farm. Now, she tracks her production cycles, calculates her yields, and adjusts her operations based on the two main seasons – the rainy season and the Harmattan.

"So all those things made me know that you can really work with it and you can you can make profit, if you do it right."

Innovation with mushroom products

The programme didn't just enhance her vegetable farming skills; it also inspired her to add value to her mushrooms. She started exploring product diversification, leading to the creation of mushroom tea and powdered mushroom products. This allows her to make use of all her yields and limit the waste. With increased demand, she now collaborates with other mushroom farmers to meet supply needs.

In 2024, four TU Delft students from the Netherlands came with a project to build a solar dryer, so that the mushroom drying process can be speeded up. With this innovation, Vivian can now dry her mushrooms more efficiently and quicker, resulting in an increasement of her capacity to produce products.

Vivian's story proves that farming is a business. By embracing new techniques in processing, collaborating with others, and improving her business knowledge, she has turned challenges into opportunities while having the courage to take the step to start a business in mushroom farming.

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Building a future through horticulture: Rollande's journey

Fourteen years ago, Rollande started farming and took her sister as business partner. Together, they currently cultivate over three acres of land and rely solely on farming as their primary source of income. Through farming, Rollande not only supports her family but could also send her son to university.

"My child is at the university now, level 300. When I started he was in primary school. It's the only work I'm going to take care of him."

ACHI as a game-changer

As the Vegetable Growers Association administrator, Rollande was chosen to represent their community in the ACHI programme's first batch together with the association's secretary. Initially unfamiliar with the four month course, she embraced the opportunity. The ACHI programme expanded her knowledge in sustainable farming techniques, entrepreneurship, and market accessibility – key elements that helped her elevate her farming operations.

"We are in farming already, certain things was not new for us, but we improve, we learn many things to come and change the way we do our work. It was very, very nice."

One of the most valuable things she learned was the use of quality seeds, irrigation systems, crop support structures, and post-harvest handling to maintain high-quality produce. Before the ACHI programme, Rollande never sold per kilo. Customers just came by, bought the product and went. But after implementing the new knowledge, she was able to sell per kilo for the first time.

"The quality of the seed and the fruit was very nice. Because I didn't let it on the ground. I made some support. Everything was up. It was clean and nice when someone would come and buy by kilo."

Overcoming challenges

Rollande's journey has not been without challenges. Farming is a constant cycle of ups and downs, requiring resilience and adaptability. She continuously seeks ways to improve her farming practices and market reach. Her greatest challenge is the market, while always meeting high standards. To stay connected to the market, Rollande sees branding as an important way. It will reach a wider audience, making it easier for buyers to trace and trust her products, and find it back the next time. Moreover, branding makes sure to always aim for the best quality because the product is tracible. With the Vegetable Growers Association, Rollande is under the Ghana Green Label, which aims to promote safe production, processing and distribution of fruits and vegetables using sustainable practices.

Looking to the future

Rollande remains committed to pushing the boundaries of what is possible in farming. She keeps educating herself by researching new farming techniques and irrigation methods. One of her latest findings is rain tape irrigation, a technology she believes can make a difference in farming due to the affordability and accessibility. She also encourages for the introduction of locally made small-scale machinery to ease the burden of land preparation – a major challenge that deters many from entering the farming industry.

"And we can make it [small machinery] locally because we have people who can make it. It can help to plough; it can make help to make beds."

Despite the obstacles, Rollande continues to grow. Through her efforts, she is not just cultivating crops; she is cultivating change in the horticulture sector, inspiring others to see farming as a viable and rewarding career.

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Alumni

Here, you can find past graduates from our programme, learn about their backgrounds, and explore their professional journeys. Our alumni bring their knowledge and skills to various fields, continuing to make an impact in their communities.

Filter

Felicia
KAC - Batch 5

Gerald
OAC - Batch 2

Kwame
KAC - Batch 4

Ella
KAC - Batch 7

Doris
WAC - Batch 1

Emmanuel
EAC - Batch 1

Josephine
KAC - Batch 6

Jeff
OAC - Batch 2

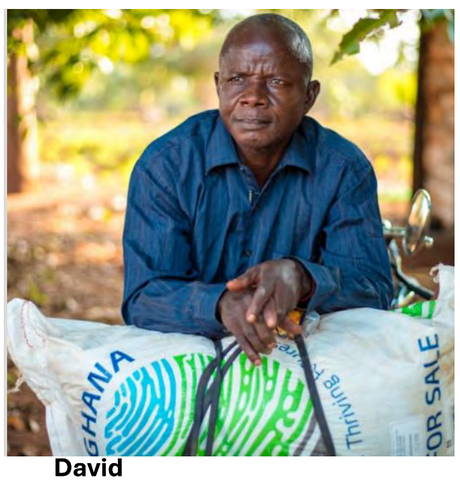
Chasitity
KAC - Batch 7

Abdulhak
KAC - Batch 4

Bash
WAC - Batch 1

Faustina
KAC - Batch 5

Grace
EAC - Batch 1



David
KAC - Batch 6

Comfort
OAC - Batch 1

Adwoa
KAC - Batch 4

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- WAC, Wenchi
- EAC, Ejura
- OAC, Ohawu

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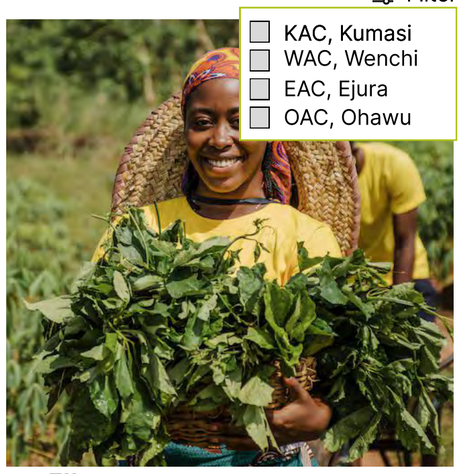
KAC - Batch 4



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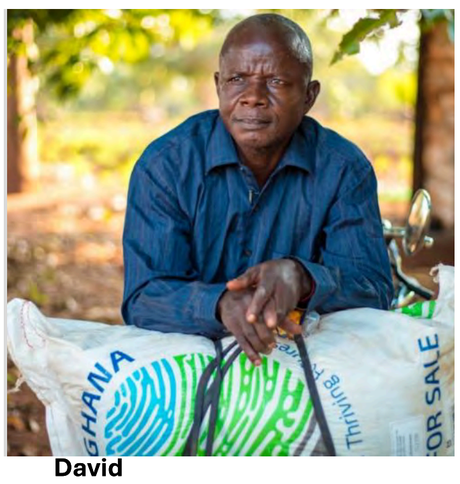

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Meet our alumni!

Felicia

Kwadaso Agricultural College
Batch 5

Project during ACHI

During the ACHI course, Felicia has created the business Bafiba. They focused on personal care products in combination with the usage of cucumber. Therefore, they came up with the cucumber shower gel.

Current job

Felicia has always been passionate about vegetable farming. Before starting with the ACHI programme, Felicia was having a small plot where she grew vegetables, pepper and cucumber. After finishing the ACHI programme, she continued farming and applied all the new knowledge on her field. She even sold cucumber per kilo for the first time. According to Felicia this is because:

“The quality of the seed and the fruit was very nice. Because I didn't let the cucumber on the ground. I made some support, everything was up. The fruit was clean and nice. Someone came and bought it by kilo”

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Get in Touch

Are you interested in our programme, looking to collaborate, want to learn more about ACHI, or simply want to connect? We would love to hear from you. Reach out to us through the details below, and let's grow together!

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APPENDIX C5

USER TEST INTERVIEW GUIDE WITH DUTCH PEOPLE

TESTING WITH

- Dutch users (8-10 people)
- Combination of students (different studies) and non-students
- Different ages, if possible (so also non-technical people)
- In-person
- For 30 minutes

GOAL

- Testing the content (does a non-related person understands what the website is about)
- Testing the navigation (are the 'links' easy to understand)

The user gets to see the home page and can go through the website. Before clicking through the website, tell what you expect to find behind it to get to know if the navigation path of the website is clear. This will be tested via observations (followed by questions). If not all the pages are found, they receive a task to go to the missing pages to see if it is clear.

GENERAL FIRST IMPRESSION

- What catches your attention first?
- What are your first thoughts when you land on this website?
- What do you think this website is about?
- Does the website feel trustworthy? Why or why not?
- How would you describe the design and layout? (e.g. modern, outdated, clean, cluttered)
- Do you think this design and layout is fitting for the subject?

NAVIGATION

- Where you able to quickly understand where to go next?
- Was any part of the (home)page confusing or unclear?
- How easy or difficult is it to find key information? (e.g. about the programme, application process, alumni stories, contact)
- Did you feel overwhelmed or lost at any point? If so, where?
- If you wanted to apply for the programme, where would you click first?

FINAL QUESTIONS

- If you had to describe this website in three words, what would it be?

- Does the website make you want to learn more? Why or why not?
- Do the images and visuals support the message of the website? Why or why not?
- What would you improve to make the website better?
- How engaging is the content? (e.g. success stories, about the programme, partners)

APPENDIX C6

USER TEST WITH DUTCH PEOPLE ANALYSIS

This user test was conducted to test the website on navigability and usability. The tests aimed to evaluate the clarity, usability, and overall user experience, focusing on the key elements regarding the content and navigation.

METHODOLOGY

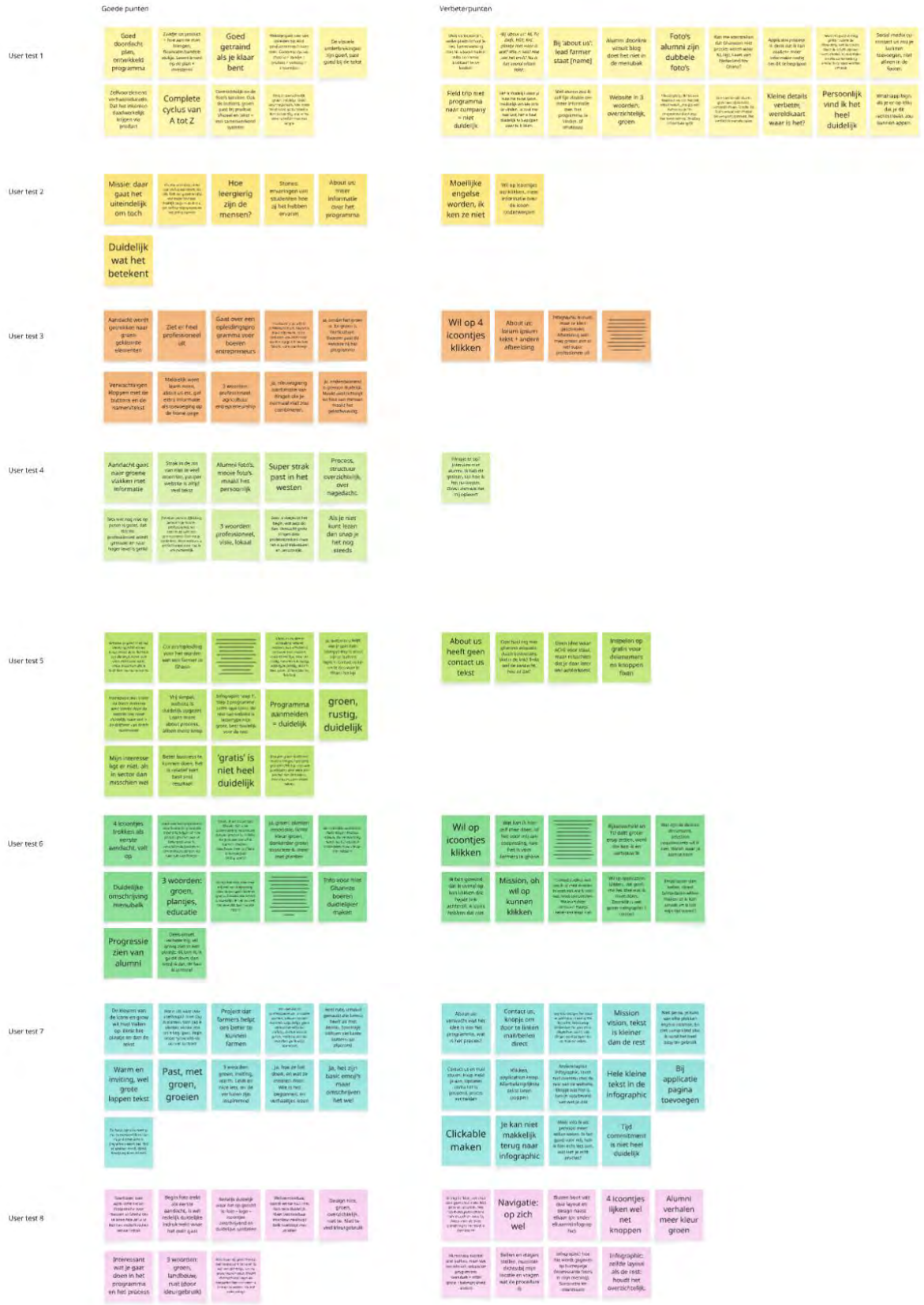
A total of eight participants were selected for the test, ensuring a balanced representation of gender and varying age groups. Their English level was also considered, as the website is in English.

Participant #	Gender	Age	English level
1	Female	55-64	A2
2	Female	65+	0
3	Male	35-44	C1
4	Female	25-34	C1
5	Male	25-34	B2
6	Male	18-24	B2
7	Female	18-24	C1
8	Male	25-34	B2

The user test was conducted in a calm environment at the participants' home and at a calm environment at a university building, where participants were given access to the website in the Figma software and asked to complete specific tasks related to navigation and content comprehension. The key aspects evaluated included:

- Navigation: logical flow between sections, understandable buttons and text.
- Content: clarity of information, relevance, and design.
- Usability: ease of interaction, visual feedback.

Participants provided feedback through direct observation, verbal comments, and post-test discussions. First, the participants went through the website, starting at the home page. They could explore the website by clicking where they preferred to go. On the related pages, the participants were asked questions. If they did not arrive on all the pages, the participants were asked to find this specific page by asking for more information about the related topic. After completing this first impression, the participants were asked about the navigation, content and usability of the website through semi-structured interview questions (see Appendix X). The results of the interviews are categorised in themes through clustering.


Goede punten
Verbeterpunten
User test 1
Goed doordacht plan, ontwikkeld programma
Goed getraind als je klaar bent
Complete cyclus van A tot Z
Bij 'about us': lead farmer staat [name]
Alumni doorlink vanuit blog doet het niet in de menubalk
Foto's alumni zijn dubbele foto's
Field trip niet programma naar company = niet duidelijk
Website in 3 woorden, overzichtelijk, groen
Kleine details verbeter, wereldkaart waar is het?
Persoonlijk vind ik het heel duidelijk
User test 2
Missie: daar gaat het uiteindelijk om toch
Hoe leergierig zijn de mensen?
Stories: ervaringen van studenten hoe zij het hebben ervaren
About us: meer informatie over het programma
Duidelijk wat het betekent
Moeilijke engelse worden, ik ken ze niet
User test 3
Aandacht wordt (gevraagd) naar groen-gekleurde elementen
Ziet er heel professioneel uit
Gaat over een opleidingsprogramma voor boeren entrepreneurs
Verwachtingen kloppen met de buttons en de naamen/tekst
3 woorden: professioneel, agricultuur, entrepreneurship
Wil op 4 icoontjes klikken
About us: lorum ipsum tekst + andere afbeelding
User test 4
Aantacht gaat naar groene vlakken met informatie
Strak in de zin van klar de veel woorden, ga over website is zittig/ veel tekst
Alumni foto's, mooie foto's, maakt het persoonlijk
Super strak past in het westen
Process, structuur overzichtelijk, over nagedacht.
3 woorden: profesionneel, visie, lokaal
Als je niet kunt lezen den snap je het nog steeds
User test 5
About us heeft geen contact us tekst
Inspelen op gratis voor deelnemers es knoppen foam
Programma aanmelden = duidelijk
groen, rustig, duidelijk
Mijn interesse ligt er niet, als in sector dan misschien wel
'gratis' is niet heel duidelijk
User test 6
4 icoontjes trokken als eerste aandacht, valt op
Wil op icoontjes klikken
Duidelijke omschrijving menubalk
3 woorden: groen, planijes, educatie
Mission, oh wil op kunnen klikken
Info voor Hist Gluvinte boeren duidelijker maker.
Progressie zien van alumni
User test 7
Project dat farmers helpt om beter te kunnen farmen
Contact us, knopje om door te linken mailbehiet direct
Mission vision, tekst is kleiner dan de rest
Warm en inviting, wel grote lappen tekst
Past, met groen, groeien
Hele kleine tekst in de infographic
Bij applicatie pagina toevoegen
Clickable maken
Je kan niet makkelijk terug naar infographic
Tijd commitment is niet heel duidelijk
User test 8
Navigatie: op zich wel
4 icoontjes lijken wel net knoppen
Alumni verhalen meer kleur groen
Interessant wat je gaat doen in het programma en het proces
3 woorden: groen, landbouw, rust (door ideurgebruik)
Infographic: zelfde layout als de rest: houdt het overzichtelijk.

RESULTS

The results of the user test provide insights into how the ACHI website was experienced. These findings are thematically grouped in the following themes: perception, design and layout, programme understanding, navigation and usability, completeness of information, trustworthiness, and suggestions.

1. **Perception**

The website was consistently described as professional, inviting, and educational. Users noted a clear visual and textual alignment that conveyed the programme's goals. Many were intrigued by the combination of the horticulture and entreprenurship and expressed curiosity about the programme's potential impact. Users without a personal stake in horticulture found the site visually engaging and informative, contributing to a braoder sense of interest and accessibility.

2. **Design and layout**

The design was seen as simple, clear, and good colour usage, particularly the green tones that users associated with horticulture and sustainability. Visual breaks, concise text blocks, and clear button structures created a sense of calm and coherence. Users expecially appreciated the homepage icons and banner image for offering a strong first impression. However, some pointed out incostencies in design, particularly the infographic, which felt visually disconnected form the rest of the website. Several also noted the importance of maintaining short text blocks and strong image-text collaboration.

3. **Programme understanding**

Participants generally understood that the website presented an educational programme for farmers in Ghana, focusing on a complete cycle from theory to practice, from seed to market. They recognized the value of practical training and entrepreneurial education, highlighting the programme's focus on income generation and self-sufficiency. Some users noted the role of Dutch-Ghanaian collaboration and were curious about the links between the institutions. While

many users could articulate the full scope of the programme, a few expressed confusion about specific details, such as the role of field trips or the programme's timeline, indicating room for improved clarity in some areas.

4. **Trustworthiness**

The site was perceived as trustworthy and credible. This was attributed to its professional design, coherent visual language, and real-life stories of alumni, which functioned as testimonial evidence of the programme's success. Users appreciated the soft green aesthetic and rounded visuals, which gave the site a friendly, non-commercial feel. Still, some participants mentioned that the presence of recognizable institutional logos (such as TU Delft or the Dutch government) could be made more prominent to further reinforce the site's reliability.

5. **Navigation and usability**

Navigation was generally reported as smooth and logical. Users found the buttons, menu bar, and page flow intuitive. However, several participants expected certain elements (such as the homepage icons or mission and vision blocks) to be clickable and were surprised when they were not. This mismatch between visual cues and actual interactivity slightly disrupted the user experience. Users appreciated the "learn more" buttons and the homepage layout but recommended improving return-navigation from certain sections (e.g., infographic) and making key information more prominent.

6. **Completeness of information**

Although users found the site generally informative, they noted some gaps. The programme's duration, application process, and selection criteria were not always clearly outlined. There was a desire for more context on what participants would learn, how much time they would need to commit, and what the concrete outcomes would be. Alumni profiles were appreciated, but some users wanted deeper insights into their journeys and results. While the homepage provided a strong overview, users suggested that specific key details should be emphasized more directly using layout and formatting tools such as bold text or larger fonts.

7. **Suggestions**

A number of suggestions were made to enhance both functionality and user engagement. These included making more elements clickable (such as icons and infographics), integrating a map to visualize the Dutch-Ghanaian partnership, and adding videos—particularly alumni testimonials—to deepen engagement. Other suggestions involved refining the contact page by clarifying who to contact for what purpose, and updating outdated or placeholder text such as "Lorem Ipsum."

Several participants also emphasized the importance of making application steps and required documents more explicit.

CONCLUSION

Overall, the user test findings indicate that the website is well-structured, visually appealing, and effectively communicates its purpose as a horticultural education programme in Ghana. Participants appreciated its professional layout, clear navigation, and the use of green elements, which reinforced the horticultural theme. The inclusion of alumni stories and images contributed to the website's perceived trustworthiness, though visibility of institutional affiliations and external verification links could further enhance credibility.

While the website was generally easy to navigate, some usability issues were noted, such as non-clickable elements perceived as interactive and inconsistencies in design. Additionally, some participants found the text-heavy sections overwhelming and suggested improving readability through formatting adjustments. Most users were able to locate key information with ease, but the infographic with in-depth information about the programme and the application process could be made more visible by adding it to the menu bar.

In conclusion, the website effectively delivers its purpose and provides a positive user experience. However, minor changes in design consistency, interactive elements and the clarity of the navigation for the infographic could further improve usability and credibility.

APPENDIX C7

FINAL WEBSITE DESIGN

Grow with us!

Empowering young Ghanaians with practical, climate-smart horticulture skills and entrepreneurial training to tackle youth unemployment and build a sustainable horticultural future.

Horticulture | Entrepreneurship | Private sector collaboration | Educational programme

About ACHI

ACHI is a Ghana-based initiative that empowers young people to build sustainable futures through horticulture. We focus on **practical education** and **business partnerships** to improve farming, boost employment, and support green, climate-smart growth.

The horticulture sector in Ghana holds enormous potential — not only to create employment, but also to address critical challenges in food security and food safety. The growing market for fruits and vegetables, along with improved production and post-harvest practices, offers opportunities for both Ghanaian and Dutch stakeholders.

ACHI contributes to this transformation by strengthening horticultural education across five regions in Ghana and facilitating knowledge transfer through a network of lead farmers. By doing so, we are building a broad horticultural innovation ecosystem.

55 lead farmers

45 Farmer Field Days

1700+ reached farmers

170+ adopted climate-smart practices since 2024

OUR MISSION

Enhancing economic development in Ghana's horticulture sector by stimulating green growth and tackling youth unemployment.

OUR VISION

Climate-smart practices securing food, tackling environmental challenges, and create opportunities for Ghanaian & Dutch businesses.

OUR VALUES

Promoting sustainable, innovative horticultural practices to empower individuals and foster collaborations.

Business

ACHI actively collaborates with **local and international partners** to strengthen the horticulture value chain in Ghana. By connecting education with market opportunities, ACHI supports the development of a thriving horticultural sector that creates jobs, drives innovation, and promotes sutainable growth.

Through partnerships with Ghanaian and Dutch businesses, and public institutions, ACHI fosters an environment where young entrepreneurs can access high-quality inputs, technical expertise, and valuable networks. These collaborations help build a resilient and inclusive **horticulture ecosystem** - benefiting both emerging farmers and establishing industry actors. Together, we promote innovation, build networks, and open up new business opportunities throughout the horticulture value chain.

International partnerships

Job creation

Driving innovation

Learn more

Education

The educational component of ACHI focusses on offering practical training in modern farming and entrepreneurship through a **free four-month programme** at 5 agricultural colleges across Ghana. The education programme equips young people with the **practical skills** and **entrepreneurial mindset** needed to succeed in the horticulture sector. The four-month training is offered at **five agricultural colleges across Ghana** - Kwadaso (Kumasi), Wenchi, Ohawu, Ejura, and Damongo - ensuring regional access to high-quality, practice-oriented education.

Participants receive hands-on training in modern horticulture techniques, business development, and climate-smart practices, and gain the skills, mindset, and confidence to start or improve their own horticultural businesses. By bridging the gap between theory and real-world application, ACHI prepares the next generation of farmers and agripreneurs to build sustainable, income-generating businesses and contribute to a more resilient agricultural future.

FREE

Free education

04 MONTH

4 month duration

5 different locations

Learn more

Alumni

Graduating from ACHI's four-month education program is just the beginning. Our alumni step into a thriving community of like-minded individuals dedicated to shaping the future of Ghana's food systems.

ACHI is more than a training programme in horticulture and entrepreneurship: it's a launchpad for the next generation of agripreneurs, farmholders, and sector leaders. Across the country, our graduates are making their mark in diverse roles within the horticulture sector.
Our active **ACHI Alumni Association** ensures continued growth and support after graduation. Led by a board of alumni executives, the association organizes events such as company visits, hands-on workshops, mentoring sessions, and tailored business support to meet the evolving needs of our network.

Alumni stories

Fourteen years ago, Rollande and her sister started farming. Joining ACHI was a game-changer by learning the skills to improve her practices – including selling her crops per kilo for the first time.

Learn more

Vivian is balancing a full-time HR career with her passion for mushroom farming. During ACHI, she gained the skills to plan her farming activities strategically, created an innovative product - mushroom tea.

Learn more

Contact us

Are you interested in our educational programme, looking to collaborate, want to learn more about ACHI, or simply want to connect? We would love to hear from you. Reach out to us through the details below, and let's grow together!

Learn more

Network

This page highlights ACHI's network - from key partnerships and collaborative efforts to lead farmers, field demonstrations, and the broader value chain in which ACHI operates.

Private sector collaboration | Farmers network | Business growth | Alumni network

The ACHI horticulture ecosystem

ACHI combines education, entrepreneurship, and sustainable agriculture to strengthen Ghana's horticulture sector. By connecting public and private sectors across the entire value chain, ACHI builds a **thriving business ecosystem**. Through close collaboration with Ghanaian and Dutch companies, agricultural colleges, and development organizations, we support innovation, pilot projects, and knowledge exchange. An active farmers network — including lead farmers and farmer field days — ensures new practices and technologies reach communities. These efforts drive climate-smart farming, job creation, and green economic growth.

Key partners

The ACHI programme thrives through the collaborations with key partners – the **Agricultural Colleges**, **Holland Greentech Ghana**, and **University of Technology Delft** (the Netherlands) – who bring expertise in agricultural education, technology, and research. Each partner plays a crucial role in supporting the programme's mission to enhance employment opportunities, food security, and sustainable farming practices in Ghana. By combining the strengths, they ensure that ACHI participants receive high-quality training, access to modern horticultural tools, and valuable industry connections.

The Agricultural Colleges

By facilitating the ACHI educational programme, the agricultural colleges - KAC, OAC, WAC, EAC, and DAC -play a central role in ACHI. They are shaping the new generation of skilled, business-minded professionals through quality education with hands-on experience and mentorship.

Holland Greentech Ghana

By combining quality inputs with hands-on training, Holland Greentech contricutes practical exertise to ACHI. As part of a broad African network, they link Dutch suppliers to local farmers, promote climate-smart practices, and share innovation through lead farmers and farmer field days.

Delft University of Technology

Through Delft Centre for Entrepreneurship and Delft Global Initiative, Delft University of Technology plays a key role in ACHI by supporting curriculum development, training educators, and integrating entrepreneurship into the programme to improve horticultural development.

Collaborations

At ACHI, we create valuable opportunities for companies looking to innovate and grow in Ghana's horticulture sector. We offer pilot projects at our agricultural colleges, providing a controlled environment to test new ideas and technologies while working closely with skilled students and faculty. Through our extensive network, businesses gain access to a pool of talented alumni, experienced farmers, and key players in the industry, making it easier to find the right partners and scale successful innovations.

We also connect companies with master's students from Delft University of Technology, who apply their expertise to real-world challenges. With over 55 TU Delft students having completed projects, these collaborations bring fresh insights and practical solutions that drive innovation for businesses while supporting our work in Ghana.

Farmers Network

The Farmers Network has played a pivotal role in the transformation happening in Ghana's horticulture sector. By connecting farmers with essential training, climate-smart practices, and market access, this network has empowered farmers to increase their yields, expand their businesses, and improve profitability. Central to this effort are the **lead farmers** and **Farmer Field Days**, trained and coordinated by Holland Greentech, who serve as key agents of change, helping to disseminate knowledge and best practices accross the region and to the communities.

Lead farmers

Lead farmers serve as key change aganets in the Farmers Network. They are trained by Holland Greentech and share those climate-smart pracixes and business knowledge with local farmers, empowering communities to improve yields, bood profits, and enhance sustainability in Ghana's horticulture sector.

Farmer Field Day

Farmer Field Days are key events where local farmers gather to learn an exchange knowledge and skills. Organized by lead farmers and Holland Greentech, these days promote climate-smart practices, demonstrate innovative techniques, and foster collaboration to spread it throughout the communities.

Horticulture Value Chain

Public-private cooperation across the horticulture value chain strengthens the system by promoting new technologies and sustainable practices. By connecting cooperatives, logistics, processing, and retail sectors, these collaborations optimize food safety, improve environmental impact, and enhance value chain efficiency.

Alumni

The alumni from the ACHI educational programme become a vital link between education and business by joining the **ACHI Alumni Assocation**. As part of this, they gain access to ongoing professional growth, mentorship, and collaboration opportunites. Alumni bridge the gap between theory and practice, connecting education with real-world business applications. Through networking events, industry connections, and continued learning, they play a key role in driving innovation and growth within the horitculture sector.

Alumni association

Networking

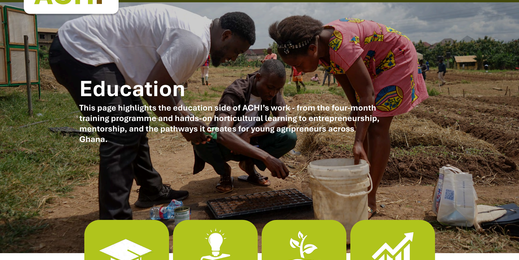
Continued learning

Want to Collaborate?

Beyond its core partners, ACHI is collaborating with companies that contribute to the programme's success by providing **expertise**, **resources**, and **market opportunities**. These collaborations bridge the gap between education and industry, ensuring that participants gain practical experience and access to essential tools for modern farming.

By partnering with diverse companies, ACHI strengthens the agricultural value chain and empowers young professionals with the knowledge and networks needed to thrive in the industry.

Contact us



Education

This page highlights the education side of ACHI's work - from the four-month training programme and hands-on horticultural learning to entrepreneurship, mentorship, and the pathways it creates for young agripreneurs across Ghana.

Educational programme | Theoretical knowledge | Practical skills | Entrepreneurial skills

The ACHI educational programme

The ACHI programme is a **free four-month training** initiative created to equip participants with theoretical and practical skills in **horticulture** and **entrepreneurship**. Combining hands-on experience with theory and entrepreneurship, the programme empowers individuals to build successful horticultural businesses, enhancing food security, and contribute to a more resilient agricultural sector.

The programme is open to aspiring and existing farmers, agripreneurs, and professionals looking to expand their knowledge in climate-smart horticulture. Candidates are motivated individuals eager to develop their expertise, improve their business understanding, and create sustainable opportunities in the horticulture value chain.

Participants gain essential skills in modern farming techniques, post-harvest management, and financial planning. They also benefit from mentorship, access to industry networks, and practical training that prepares them to scale their businesses, improve market access, and drive innovation in the horticulture sector.

The programme's process

Step 1: Application process

Applying for the ACHI programme is a straightforward process to welcome passionate individuals eager to grow in horticulture and agribusiness. Prospective participants get in contact with the ACHI college coordinator of the correct college that they want to apply for. The project manager will tell them what the procedure will be, from submitting the **application**, **CV**, and **letter of motivation**, to the selection procedure.

Contact us to apply

Step 2: Programme

After acceptance, the programme will start with the curriculum. The educated courses equally cover **horticultural** and **entrepreneurial topics**. The horticultural courses combine both theoretical and practical training. To enhance their learning experience, a **field trip** provides real-world exposure, allowing them to observe modern horticultural practices in action.

Horticultural theory and practices

The programme provides a comprehensive combination of theoretical and practical training in horticulture, equipping participants with the essential skills of the full life cycle of the plant. The courses cover key aspects of modern horticultural practices, ensuring that graduates are well-prepared to apply their knowledge in real-world agricultural settings, with a learning by doing approach. The course consists of:

- Horticulture and ICT
- Seed choice, sowing & nursery
- Land preparation & fertilization
- Irrigation, soil & water management
- Integrated Pest Management
- Protected horticulture
- Storage, processing & packaging
- Logistics

Entrepreneurial practices

Next to the horticultural topics, the ACHI programme equips participants with essential entrepreneurial skills to help them establish and grow successful agribusinesses. The programme covers key aspects of business development, from identifying opportunities to managing finances and marketing products effectively. The topics consist of:

- Teamwork
- Introduction to entrepreneurship
- Entrepreneurial opportunities
- Value proposition
- Business model
- Finance & planning
- Marketing & branding
- Sales pitch

Field trip

To apply the learnings in class with the real horticultural settings, the participants go on a field trip to a company. These visits provide valuable hands-on exposure to commercial farms, agribusinesses, and research institutions, allowing participants to observe best practices, modern technologies, and innovative farming techniques in action.

During these excursions, they engage with experienced farmers and industry experts, gaining insights into real-world challenges and opportunities in horticulture and agribusiness. They will deepen their understanding of the agricultural value chain and strengthen their practical knowledge.

Step 3: Graduation

The graduation day marks the culmination of the ACHI programme, celebrating the hard work, dedication, and accomplishments of the participants. During this day, the groups show and pitch their projects. A jury is present to assess which group is winning the first, second and third place. At the end, all graduates receive a **certificate** of the programme. This event brings together mentors, partners, and alumni to recognize the graduates' achievements and inspire their next steps in agribusiness. Graduates step into the future with skills, confidence, and a network to build successful careers in horticulture.

Step 4: Alumni

Graduating from the ACHI programme marks the beginning of a new phase where alumni become part of the **ACHI Alumni Association**. This alumni network provides ongoing opportunities for professional growth, mentorship, and collaboration. Alumni can participate in networking events, gain access to industry connections, and continue learning through workshops and resources.

Want to apply?

Are you interested in joining the ACHI educational programme, or want to know more information? We would love to hear from you. Reach out to us, and let's grow together!

Contact us

Meet our alumni: inspiring stories

Our alumni are turning knowledge into impact, shaping the future of horticulture in Ghana. Their journeys highlight the importance of education, entrepreneurship, and innovation. Explore their stories and learn how they improved their business with the knowledge gained from ACHI.

Rollande’s journey

Fourteen years ago, Rollande and her sister started farming. Over the past years, they turned three acres of land into their primary source of income supporting her family and putting her son though university. Joining ACHI was a game-changer by learning the skills to improve her practices – including selling her crops per kilo for the first time.

Learn more

Vivian’s journey

Vivian is balancing a full-time HR career with her passion for mushroom farming. During ACHI, she gained the skills to plan her farming activities strategically, optimizes the production, and created innovative products resulting in supplements and the mushroom tea.

Learn more

From passion to business: Vivian's journey

Vivian is a proud alumnus of ACHI and a passionate worker. She is working full-time as an HR specialist from Monday to Friday, and works part-time in the evenings and during the weekends as a mushroom farmer and at her company together with Desmond, creating tea made and supplements from the mushroom.

"They were gonna run a four-month course, and it was actually free. I was like, really? Because it costs a lot to participate in these courses."

Vivian's journey into farming wasn't a sudden decision. Before joining ACHI, she already started with mushroom farming due to her interest and passion. Her elder sister, who knew about this passion, came across an ACHI programme advertisement and encouraged Vivian to apply. Even though the programme is about vegetables, the idea of a free four-month course that combined theory and practical skills in vegetable farming intrigued her. With an open mind and willingness to learn, she went for it.

Beyond 'just' farming

With no specific expectations, Vivian embraced the programme as an opportunity to expand her knowledge. However, what she gained went beyond vegetable farming. The programme transformed her perspective on horticulture, showing her that farming could be more – it could be a sustainable and profitable business.

"So you could actually sit down and then plan your whole business for a whole season, even get to know your profits margins or profit range and your losses range before you even get into the farming season."

One of the biggest eye-openers for Vivian was the business side of horticulture. Through lessons on entrepreneurship, business model canvases, and SWOT analyses, she learned how to structure her farming operations strategically. Prior to the programme, she didn't have a specific planning for her mushroom farm. Now, she tracks her production cycles, calculates her yields, and adjusts her operations based on the two main seasons – the rainy season and the Harmattan.

"So all those things made me know that you can really work with it and you can you can make profit, if you do it right."

Innovation with mushroom products

The programme didn't just enhance her vegetable farming skills; it also inspired her and Demond to add value to her mushrooms. They started exploring product diversification, leading to the creation of mushroom tea and powdered mushroom products. This allows them to make use of all their yields and limit the waste. With increased demand, they now collaborate with other mushroom farmers to meet supply needs.

In 2024, four TU Delft students from the Netherlands came with a project to build a eco-friendly solar dryer, so that the mushroom drying process can be speeded up and no electricity is needed. With this innovation, Vivian and Demond can now dry her mushrooms more efficiently and quicker, resulting in an increasement of her capacity to produce products.

Vivian's story proves that farming is a business. By embracing new techniques in processing, collaborating with others, and improving her business knowledge, she has turned challenges into opportunities while having the courage to take the step to start a business in mushroom farming.

Building a future through horticulture: Rollande's journey

Fourteen years ago, Rollande started farming and took her sister as business partner. Together, they currently cultivate over three acres of land and rely solely on farming as their primary source of income. Through farming, Rollande not only supports her family but could also send her son to university.

"My child is at the university now, level 300. When I started, he was in primary school. It's the only work I do to take care of him."

ACHI as a game-changer

As the Vegetable Growers Association administrator, Rollande was chosen to represent their community in the ACHI programme's first batch together with the association's secretary. Initially unfamiliar with the four month course, she embraced the opportunity. The ACHI programme expanded her knowledge in sustainable farming techniques, entrepreneurship, and market accessibility – key elements that helped her elevate her farming operations.

"We are in farming already, certain things were not new for us, but we improve, we learn many things to change the way we do our work. It was very, very nice."

One of the most valuable things she learned was the use of quality seeds, irrigation systems, crop support structures, and post-harvest handling to maintain high-quality produce. Before the ACHI programme, Rollande never sold per kilo. Customers just came by, bought the product and went. But after implementing the new knowledge, she was able to sell per kilo for the first time.

"The quality of the seed and the fruit was very nice. Because I didn't let it grow on the ground, I made some support. The fruits were clean and nice. That is why someone would buy by kilo."

Overcoming challenges

Rollande's journey has not been without challenges. Farming is a constant cycle of ups and downs, requiring resilience and adaptability. She continuously seeks ways to improve her farming practices and market reach. Her greatest challenge is the market, while always meeting high standards. To stay connected to the market, Rollande sees branding as an important way. It will reach a wider audience, making it easier for buyers to trace and trust her products, and find it back the next time. Moreover, branding makes sure to always aim for the best quality because the product is tracible. With the Vegetable Growers Association, Rollande is under the Ghana Green Label, which aims to promote safe production, processing and distribution of fruits and vegetables using sustainable practices.

Looking to the future

Rollande remains committed to pushing the boundaries of what is possible in farming. She keeps educating herself by researching new farming techniques and irrigation methods. One of her latest findings is rain tape irrigation, a technology she believes can make a difference in farming due to the affordability and accessibility. She also encourages for the introduction of locally made small-scale machinery to ease the burden of land preparation – a major challenge that deters many from entering the farming industry.

"And we can make it [small machinery] locally because we have people who can make it. It can help to plough the fields."

Despite the obstacles, Rollande continues to grow. Through her efforts, she is not just cultivating crops; she is cultivating change in the horticulture sector, inspiring others to see farming as a viable and rewarding career.

Get in Touch

Are you interested in our programme, looking to collaborate, want to learn more about ACHI, or simply want to connect? We would love to hear from you. Reach out to us through the details below, and let's grow together!

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APPENDIX C8

USER TEST INTERVIEW GUIDE WITH GHANAIANS

TESTING WITH

- Ghanaian current participants or alumni
- For 30 minutes

GOAL

- Testing the content (are all important themes covered, is it clear etc)
- Testing the clearity (is the website easy to understand, clear etc)

The website will be tested online via Teams. The user gets to see a pdf file with the website pages. They can go through the pdf file to see the website. On the pages, they are asked what they expect will happen if the file would be interactive, they tell what they expect to find behind it to get to know if the navigation path of the website is clear. This will be tested via an interview.

GENERAL FIRST IMPRESSION

- What catches your attention first?
- What are your first thoughts when you land on this website?
- Does the website feel trustworthy? Why or why not?
- How would you describe the design and layout? (e.g. modern, outdated, clean, cluttered)

NAVIGATION

- What do you think is behind all the buttons of the menu bar? Why?
- Was any part of the (home)page confusing or unclear? Why?
- Were things unclear on the website? If so, what?
- If you wanted to apply for the programme, where would you click/go first?

CONTENT (MAIN FOCUS)

- Does this website fit with your experience in the programme? Why or why not?
- Do the descriptions of the programme match your experience? Why or why not?
- Are the descriptions clear? Why or why not?
- How well do you think the website communicates the goals and impact of the programme?

- Do the images and visuals support the message of the website? Why or why not?

ALUMNI (MAIN FOCUS)

- How useful do you find the 'alumni' page? Would you use it to connect with others?
- Would you use this website to stay connected with the programme? If not, what would encourage you to visit it more often?
- Do you think the website could help alumni network or collaborate? How?

FINAL QUESTIONS

- Describe the website in three words.
- What is the most valuable part of the website? Why?
- Is there anything missing that you expected to see?
- What is one thing you would improve to make the website better?
- (extra question interesting for the content) When is an alumni successful in your opinion?

APPENDIX C9

USER TEST WITH GHANAIANS ANALYSIS

Based on the results with the Dutch test persons, substantial parts of the website were modified before it was tested with the Ghanaians to get the focus on other elements of the content so that other insights could be generated. Since the design of the ACHI process did not fit with the rest of the designed layout, this was adapted. Next to that, the alumni database page was removed in contact with the client, due to logistical problems that would arise. Moreover, some small elements were adapted, as the text in the visual of the ACHI process, adding images to the partner page, and adding information on the ACHI Alumni Association.

METHODOLOGY

A total of eight participants were selected for the test, ensuring a balanced representation of involvement with the ACHI programme, both (just started) participants and alumni. However, there Is no balanced representation of gender.

Participant #	Gender	Involvement
1	Female	Participant ACHI
2	Male	Participant ACHI
3	Male	Alumni ACHI
4	Male	Alumni ACHI
5	Male	Alumni ACHI
6	Male	Participant ACHI
7	Male	Participant ACHI
8	Male	Alumni ACHI

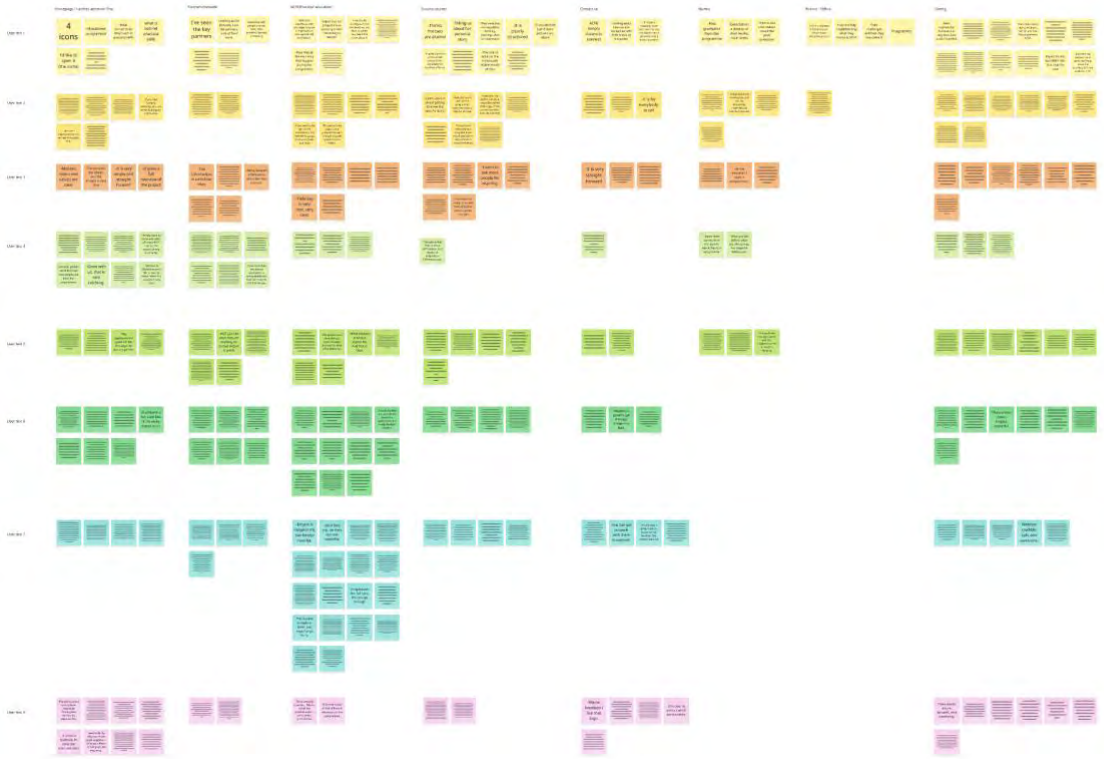
The user test was conducted in a controlled environment via a Teams meeting, where participants were given access to the non-interactive version of the website in the form of a PDF file. The participants were asked to navigate through each page to review the content and share reflections, followed by semi-structured interview questions (see Appendix X). The key aspects evaluated included:

- Content: clarity of information, relevance, and design.

Participants provided this feedback through verbal comments and post-test discussions. Feedback was collected through direct comments and open discussions.

RESULTS

The results have been thematically clustered for a clear overview of the results and for recurring patterns. It is organized into the overarching themes: first impression, clarity and structure, educational experience, alumni inspiration, credibility, and suggestions for improvements. This thematic structure provides a more strategic understanding of how the website communicates its content, how it is experienced, and where there are opportunities for refinement.



1. First impression

The first impression of the arrival on the website at the homepage was positively among the users. Elements that caught users' attention included the four icons and the homepage header, as top part of the home page. Pictures and icons also stood out for a few users, with the alumni stories described as the most inspiring and attention-grabbing component from this. Users noted that the homepage effectively conveyed the essentials of the ACHI programme at a glance, combining visual and textual elements.

2. Overall perception

Users described the overall website's layout as clean, modern, and simple. Overall, it was perceived as straightforward, with clear structure and alignment between visuals and textual content. Users appreciated the balance between images and written information, noting that it made the website self-explanatory while being informative. Moreover, the images and people related to the programme on the website showed a clear idea of activities and a diverse target group, motivating people to be a fit for the programme, because background doesn't matter. The programme is for anyone.

3. Educational experience

The users highlighted several aspects of the educational experience that stood out on the website. The programme is clearly explained by learning process and showcases how practical knowledge is gained, with a balance between text and visual proof. This aspect made the programme feel holistic. Moreover, the details

that are shown about the application process are really appreciated, showing that you don't need any prior education to join the programme. Furthermore, the field trips showed that participants are not alone in facing challenges, and that the graduation certificate boosts their confidence to apply their knowledge.

4. **Alumni inspiration**

Most of the users mentioned the alumni section as the most important of the website, because of motivation and inspiration. Many users expressed that seeing the success stories made them feel that they too could achieve similar goals, or to read that alumni experienced similar struggles and overcame them. The users didn't only see the journey and successes of the alumni, but also for the improvement of their network, and potential market connections. Moreover, hearing about continuous learning beyond the programme, having an alumni network and contact with mentors, was perceived as positive.

5. **Credibility**

All users described the website as trustworthy, educative and informative. The credibility was stimulated due to the recognizable institutions that are mentioned together with their logos, the visual proof of practices and education with recognition of the location, the contact details of people including phone number and email address. Moreover, the representation of modern farming techniques, emphasis on entrepreneurship and the practical attitude of the programme further reinforced the trustworthiness of the ACHI programme itself.

6. **Suggestions for improvement**

The users suggested improvements to further enhance the website. An overall improvement was the color usage, they wanted to see a darker green like plants. Moreover, some pictures should be adapted, where vegetables are visual and no fruits, and where a specific focus on the fields and not a complete overview. Multiple times user mentioned to include more photos that show practicals and alumni activities, to provide stronger visual evidence of the programme's impact. Furthermore, the suggestion is made to include a video with a summary. Tutors could be shown in the educational part, so that people know which expertise the tutors have.

7. **Alumni Database**

The alumni database was positively received, with users expecting it to provide a display of alumni work, helping others to connect and expand their networks. Users saw this as a motivating resource that not only showed the journey and success of the alumni but also allowed for potential market connections. They preferred the overall progress development from before to after joining ACHI. The

expectation was that this section would highlight innovation and would build connections that support both personal and community development. Halfway the usertests, this section is eliminated from the website in agreement with the client, due to logistical reasons. But they would like to use this database and information for the back-end of the programme.

CONCLUSION

The user test shows that the website successfully communicates the core values, main activities, and impact of the website. Participants responded positively to the visual structure, which made a good first impression and conveyed the essence of the programme effectively. The overall design was appreciated for being clear, inclusive, and straightforward, contributing to a user experience that felt motivating and inspiring.

The educational experience was considered informative and holistic, with users valuing the clear explanation of the learning process and the emphasis on the practical application and entrepreneurial focus. The alumni stories were mentioned as the most inspiring and motivating element, reinforcing users' belief that they, too, could succeed in the programme and beyond. This storytelling approach not only personalized the experience but also helped build trust and credibility, further strengthened by the inclusion of institutional logos, contact details, and recognizable visuals of actual fieldwork.

While the feedback was mainly positive, users also identified specific areas for improvement. Suggestions included enhancing the use of colour, refining photo selection to focus on vegetables and field activities, and adding more multimedia elements such as videos for an improved user experience.

Overall, the user feedback highlights that the ACHI website serves as a credible and inspiring platform and has potential to serve as a central role in the communication for the ACHI brand, with opportunities for refinement to further enhance its effectiveness in reaching and engaging its target audience.

APPENDIX D - PROJECT BRIEF

Personal Project Brief – IDE Master Graduation Project

Name student Laura Daniëlle Jonker **Student number** 5,638,054

PROJECT TITLE, INTRODUCTION, PROBLEM DEFINITION and ASSIGNMENT

Complete all fields, keep information clear, specific and concise

Project title Horticulture in Ghana: strengthening the ACHI programme's reach and impact

Please state the title of your graduation project (above). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

Introduction

Describe the context of your project here; What is the domain in which your project takes place? Who are the main stakeholders and what interests are at stake? Describe the opportunities (and limitations) in this domain to better serve the stakeholder interests. (max 250 words)

The Ghanaian horticulture sector is a potential sector within Ghana, not only in terms of economic growth but also for food security and youth unemployment (Kidodo et al., 2016). Agriculture, contributing 19.6 percent to the country's gross domestic product (GDP) (Statista, 2022), serves as a primary source of livelihood for approximately 70 percent of the rural population but is at the same time the highest employer of unskilled labour (Kidodo et al., 2016). Since there is an increase in the demand for nutritious foods (Joosten et al., 2015), suiting education regarding horticulture can add to this economic growth.

Three years ago, the ACHI programme (before called Archipelago) is set up as an initiative to improve the horticulture sector by transforming to more effectie and sustainable production for economic growth and development, by focusing on the education of both the theoretical and practical learnings regarding horticulture and entrepreneurship. The programme istarted at the Kwadaso Agricutlure College (KAC) in Kumasi, in collaboration with Holland Green Tech and University of Technology Delft, and has expanded to Ohuwa Agric College OAC) in the Volta region, with plans to further extend to Damonga Agric College, Wenchi Agric College, and Ejura Agric Colege over the next four years.

The colleges are agricultural colleges that are providing education and training in horticulture in Ghana. Holland Greentech is a Dutch company operating in many African countries. They are specialized in sustainability agricultural technologies and greenhouse farming, where they improve reseource efficiency, increase crop yields, and minimize environmental impact. Finally, the Green Village is part of the TU Delft, and funded by the Dutch government, and is an innovation hub for sustainable technology and societal challenges.

However, the programme currently has a decrease in participants, while expanding to four other regions as well. Therefore, there is an opportunity in creating an overarching branding strategy to attract more participants and to scale up the programme at the same time.

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introduction (continued): space for images

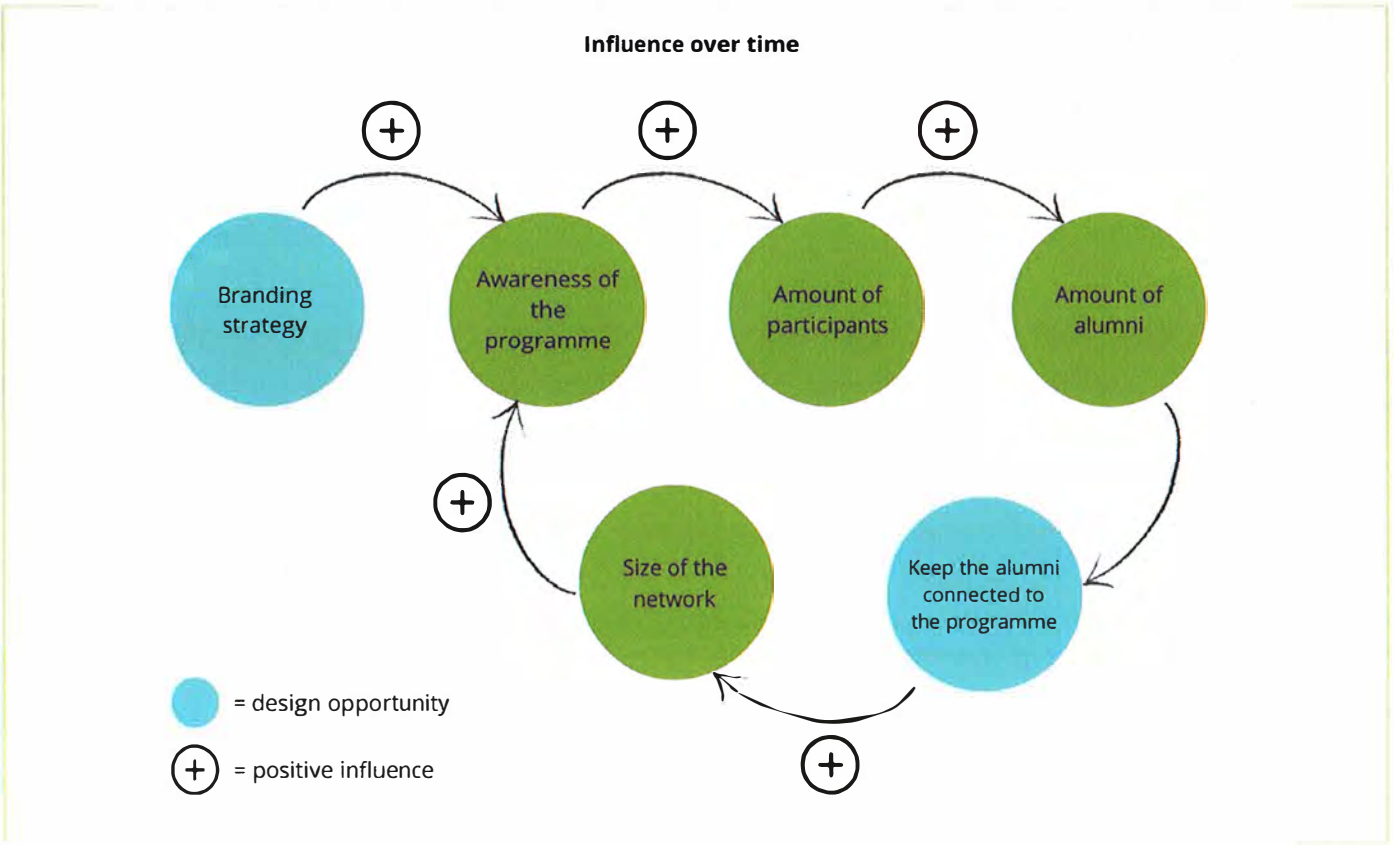

image / figure 1 Influence of design over time

image / figure 2

DESIGN FOR our future

TU Delft

Personal Project Brief – IDE Master Graduation Project

Problem Definition

What problem do you want to solve in the context described in the introduction, and within the available time frame of 100 working days? (= Master Graduation Project of 30 EC). What opportunities do you see to create added value for the described stakeholders? Substantiate your choice.
(max 200 words)

The ACHI programme, which includes participants from the college as well as externally, has recently a decline in external participation. Therefore, there is a need to renew the current approach, which currently consists of several flyers. This lead to creating a visual identity and a comprehensive branding strategy for the ACHI programme, which has the goal to enhance its impact on a broader level and elevate the programme's overall professionalism, both visually and conceptually. To elaborate on the conceptually improvement, a user centred research approach will be used to find opportunities for improvement. In this way, the programme improves its awareness, recognisability, and impact in order to attract more participants for both KAC and the other colleges.

Concluding, strengthening the reach and impact via education will contribute to higher food security by promoting the production of nutritious foods. Furthermore, many alumni who start their own companies tend to hire people, which will reduce youth unemployment and expand knowledge. My role involves researching the current situation, looking for opportunities, while connecting stakeholders, participants, and alumni to align interests and goals by focusing with my project on:
1. Creating a comprehensive branding strategy to enhance its reach and impact and thus attract more participants.
2. Exploring opportunities for improving alumni engagement to the ACHI programme.

Assignment

This is the most important part of the project brief because it will give a clear direction of what you are heading for. Formulate an assignment to yourself regarding what you expect to deliver as result at the end of your project. (1 sentence) As you graduate as an industrial design engineer, your assignment will start with a verb (Design/Investigate/Validate/Create), and you may use the green text format:

I am going to strengthening the ACHI programme's reach and impact in Ghana, by investigating opportunities for the programme through a user-centred approach and proposing a designed solution to keep alumni connected to the programme, together with designing a branding strategy to improve the brand awareness and attract more external participants.

Then explain your project approach to carrying out your graduation project and what research and design methods you plan to use to generate your design solution (max 150 words)

To succeed in this, I need to have a deep understanding of the programme, stakeholders, and the context. To understand this clearly, a broad overview is required including the activities, values, competitors, as well as understanding both the country's and participants' cultural norms and habits. Moreover, understanding the motivation of the participants' current working field, why or why not did they keep working in the farming industry. For those who entered the farming industry, understanding their challenges. Based on this gathered information, the branding strategy can be designed and additions can be designed to the programme to improve the connectivity of alumni to the programme.

This will be done by gathering data via desk and qualitative research, including interviews, questionnaires, and observations. This data will be processed in a SWOT analysis, 4C analysis, and product analysis to create the brand DNA followed by the branding strategy. Moreover, the data will be processed with context mapping, drafting personas, a customer journey, brainstomrs to conclude with a final design.

Project planning and key moments

To make visible how you plan to spend your time, you must make a planning for the full project. You are advised to use a Gantt chart format to show the different phases of your project, deliverables you have in mind, meetings and in-between deadlines. Keep in mind that all activities should fit within the given run time of 100 working days. Your planning should include a ***kick-off meeting, mid-term evaluation meeting, green light meeting*** *and* ***graduation ceremony****. Please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any (for instance because of holidays or parallel course activities).*

Make sure to attach the full plan to this project brief.
The four key moment dates must be filled in below

Kick off meeting	1 mei 2024
Mid-term evaluation	14 aug 2024
Green light meeting	4 dec 2024
Graduation ceremony	15 jan 2025

In exceptional cases (part of) the Graduation Project may need to be scheduled part-time. Indicate here if such applies to your project

Part of project scheduled part-time	✓
For how many project weeks	33
Number of project days per week	

Comments:
until 1st of September 4 days a week, after that 5 days a week. 150 days of graduating (instead of 100)

Motivation and personal ambitions

Explain why you wish to start this project, what competencies you want to prove or develop (e.g. competencies acquired in your MSc programme, electives, extra-curricular activities or other).

Optionally, describe whether you have some personal learning ambitions which you explicitly want to address in this project, on top of the learning objectives of the Graduation Project itself. You might think of e.g. acquiring in depth knowledge on a specific subject, broadening your competencies or experimenting with a specific tool or methodology. Personal learning ambitions are limited to a maximum number of five.
(200 words max)