



DESIGNING AN ENGAGEMENT STRATEGY FOR THE HORTICULTURAL PROGRAMME ACHI IN GHANA

MASTER THESIS BY LAURA D. JONKER

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Designing an engagement strategy for horticultural programme ACHI in Ghana

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I am proud to present my thesis Designing an engagement strategy for horticultural programme ACHI in Ghana. Enjoy reading!

Laura Jonker

EXECUTIVE SUMMARY

This thesis presents the findings and recommendations of a research project focused on designing an engagement strategy for the ACHI horticultural programme in Ghana. ACHI provides youth with practical and entrepreneurial horticulture training to address challenges such as youth unemployment, low agricultural productivity, and limited professional networks. While the programme is expanding rapidly across Ghana and has established a strong foundation in curriculum delivery, significantly less attention has been given to the pre- and post-participation phase, attracting and informing new participants and supporting and engaging alumni after graduation.

The project researches how ACHI can improve its communication and engagement across the stages of the participant journey. Through a combination of strategic analysis and user research, the thesis explores how ACHI's brand visibility, alumni network, and participant experience can be enhanced to support sustainable growth. The findings from the strategic context analysis and interviews and questionnaires with participants and alumni were synthesised into a participant journey map that highlights key pain points and unmet needs across the pre-, during-, and post-participation phase.

The research identifies three critical focus areas:

- **Improving information sharing and accessibility:** Programme information is often fragmented or spread through informal networks. Centralising communication can increase clarity, visibility, and trust for potential participants.
- **Facilitating continuous learning:** Alumni expressed a wish for ongoing access to updated and advanced horticultural and entrepreneurial knowledge.
- **Strengthening alumni engagement and support:** Although WhatsApp groups exist, structured alumni engagement, peer networking, mentorship, and access to resources remain limited.

To address these challenges, two core design interventions were developed:

- **A website:** Designed to improve accessibility and user experience, the website presents ACHI's mission, curriculum, application process, and alumni stories in one centralised location.
- **A Horticulture Business Event:** A three-phase strategic plan to build long-term alumni involvement by a designed event:
 - *Horizon 1 - Activate:* Reconnect alumni through annual events that stimulate networking, showcase their businesses and facilitate workshops.
 - *Horizon 2 - Expand:* Integrate partners into alumni engagement, creating opportunities to share knowledge and collaborate.
 - *Horizon 3 - Lead:* Create a mature ecosystem of stakeholders within the horticulture value chain to promote innovation, networking and collaboration while supporting inclusive growth and sector-wide transformation.

These interventions were shaped through co-creation workshops with ACHI staff and alumni, design iterations, and user testing in both Dutch and Ghanaian contexts. The final engagement strategy supports ACHI in reinforcing its core educational mission while expanding its capacity to foster meaningful, long-term relationships with participants, amplifying both individual impact and sector-wide transformation.

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1. INTRODUCTION

In this section, the background of the ACHI programme is outlined, and it further defines the problem related to ACHI's communication and alumni engagement, followed by the research questions guiding this thesis. Clarified with the scope of the research, the focus is on the educational component within ACHI.



1.1 INTRODUCTION

The horticulture sector in Ghana is a promising sector (Jumpah et al., 2020), capable of employing the population and contributing to food security and economic development. Horticulture refers to growing flowers, fruit and vegetables (Oxford English Dictionary, n.d.) and is part of agriculture. Ghana is facing a high youth unemployment rate and 11,7% of the Ghanaian population is considered as food insecure. However, the horticulture sector also faces challenges such as low productivity, inadequate training, and limited access to professional networks.

The ACHI programme, previously called Archipelago, was established to address these challenges by collaborating with the private sector and by providing practical, entrepreneurship-focused horticulture training aimed at empowering youth and smallholder farmers in Ghana. This way, it aims to enhance economic development in Ghana's horticulture sector by stimulating green growth and climate-smart practices and enhancing farming (TU Delft, 2023).

The ACHI programme consists of two components, business and education. ACHI is building a thriving business ecosystem by connecting public and private sectors across the entire value chain. A four-month educational programme equips participants with theoretical and practical skills in horticulture and entrepreneurship. Hands-on experience, theory and entrepreneurship are combined to empower individuals to build successful horticultural businesses.

The educational programme started in Kumasi at Kwadaso Agricultural College in 2019 and expanded to Ohawu Agricultural College in 2023. The programme is expanding to the three other agricultural colleges in Ghana: Wenchi, Ejura, and Damongo Agricultural College. Every batch consists of approximately 50 participants per location, with two batches annually. As ACHI scales geographically, it aims to maintain the quality and impact of its four-month programme while expanding its reach and operations. However, this expansion raises several challenges, particularly in communication. The programme's primary focus is on the curriculum. Less attention is currently paid to the pre-phase, attracting new participants, and the post-phase, engaging alumni after graduation.

By combining an analysis of ACHI's context and field research, this thesis aims to develop actionable recommendations that support ACHI's growth and sustainability and that empower the participant. The research focuses on how ACHI's communication and positioning can be strengthened to increase alumni engagement and ACHI's visibility for potential participants, to improve the complete participation journey of the educational programme. By understanding the experiences of participants, this thesis seeks to design a strategy that strengthens ACHI's brand, reach, and long-term impact.

Therefore, the main research question is:

How can ACHI engage its participants throughout every stage of the educational programme to strengthen brand awareness and alumni engagement?

To explore this question, the following sub-questions guide the research:

1. *What is ACHI's current positioning within the Ghanaian horticulture sector?*
Answered in chapter 3
2. *What challenges do the participants encounter across every stage of the educational programme?*
Answered in chapter 4
3. *How can ACHI address these challenges to improve participant experience while fostering brand development?*
Answered in chapters 5, 6 and 7

1.2 SCOPE

This thesis focuses on enhancing the communication and positioning of the ACHI programme by combining two key perspectives of the experiences and needs of participants and alumni, and the strategic positioning of the programme itself. Understanding both the user perspective and ACHI's organisational context forms the basis for developing an adoptable engagement strategy. Although the study does not examine operational and administrative structures, curriculum development, or broader sector-wide infrastructural challenges in depth, it aims to align with ACHI's broader vision. To ensure the proposed strategy supports this long-term mission, the research brings together:

1. A strategic analysis of ACHI's context and positioning
2. An in-depth understanding of participants' and alumni's expectations, experiences, and needs

By synthesising these perspectives, the thesis delivers a solution that not only strengthens the participant journey but also supports ACHI's strategic goals of visibility, alumni engagement and sector leadership. The outcome is an engagement strategy that serves both user-centred needs and organisational ambitions.

1.3 DESIGN APPROACH

The design process of this thesis followed the Double Diamond model, which consists of four phases:

- Discover
- Define
- Develop
- Deliver

This framework allowed for an iterative exploration and refinement of the engagement strategy for ACHI. The overview of the design process is presented in figure 1.

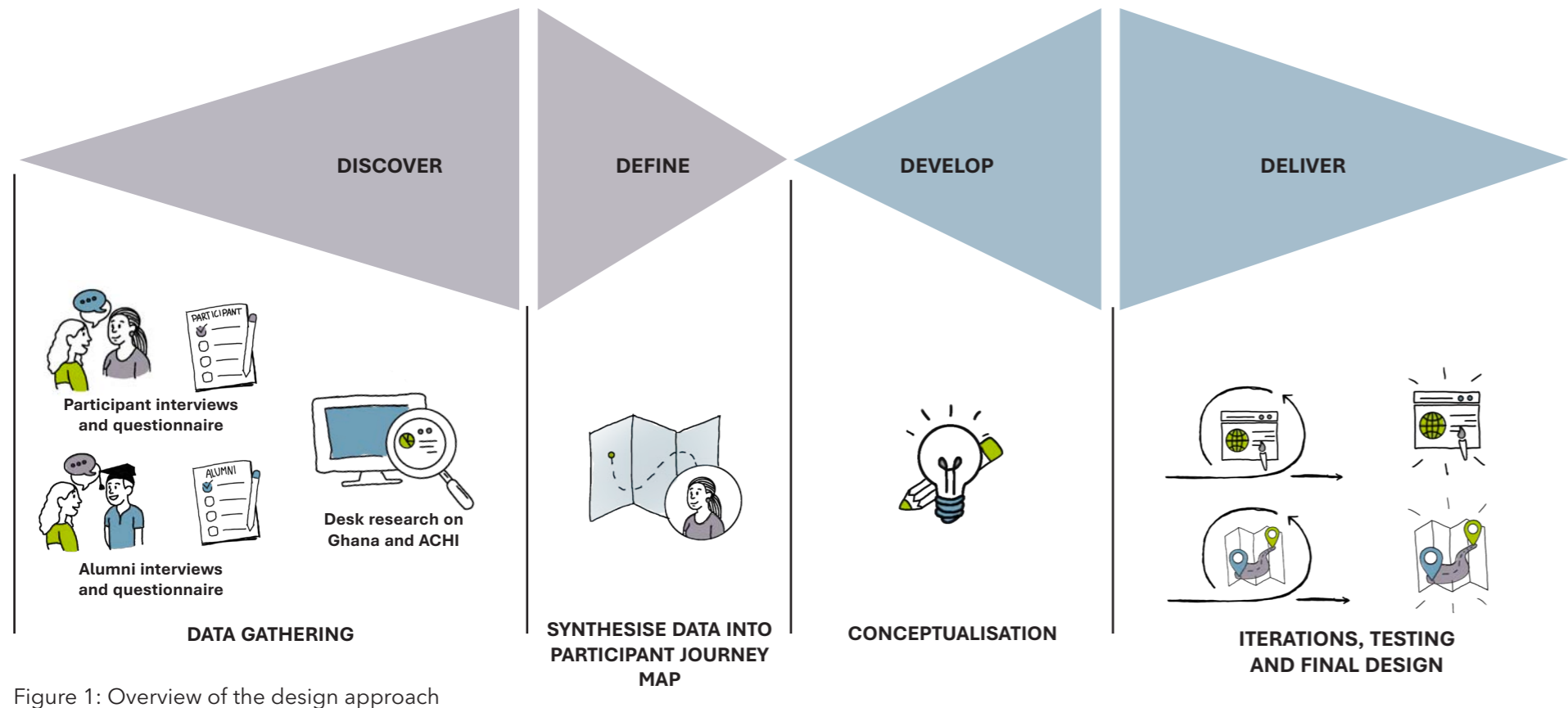


Figure 1: Overview of the design approach





2. CONTEXTUAL BACKGROUND

This chapter provides the contextual background necessary to understand the Ghanaian environment in which the ACHI programme operates and the context within which this research is situated. This chapter explores the cultural, educational and work environment in Ghana.

2.1 CULTURAL AND COMMUNICATION NORMS

Ghana is culturally diverse and has strong communal values. While English is the official language, Ghana has about 50 non-mutually intelligible languages (Dako & Quarcoo, 2017). Moreover, the Ghanaian culture is characterised by its strong sense of community due to its collectivism (Darley & Blankson, 2020), meaning they often prioritise group harmony, family, and community over individual goals. Social structures tend to be hierarchical, with deep respect for elders and authority figures, symbolizing wisdom, experience and knowledge (Darley & Blankson, 2020; Wiredu, 1980). Religion has a big role in Ghanaian's life and is woven in their philosophy and society, with only 1,1% of the population not being religious (Statista, 2023).

2.2 GHANAIAN YOUTH, EDUCATION AND EMPLOYMENT

Ghana has a growing and youthful population. With a population growth rate of 2,2%, young people form a big part of the population: 18,7% within the 15-24 age group, and 34,1% are between 25-54 years. Moreover, 54% live in urban areas, where access to employment and education opportunities is also concentrated. (Ghana Statistical Service, n.d.) Yet, the youth unemployment rate has remained consistently higher than the national average in Ghana (Jumpah et al., 2020).

In many low- and middle-income countries, overqualification is a widespread issue. This leads to a growing mismatch between the skills graduates acquire and the practical demands of the labour market (International Labour Organization, 2019; Baah-Boateng, 2013). Ghana's educational system is still largely academic in orientation and reliant on examination-based assessment (Baidoo-Anu & DeLuca, 2023). As a result, youth struggle to find employment that matches their educational levels.

Technical and vocational education and training (TVET) can be proposed as a solution to bridge the skills gap (Darvas & Palmer, 2014). However, vocational training in Ghana faces obstacles. According to Amedorme and Fiagbe (2013), access to TVET is limited due to inadequate facilities, outdated equipment, and a shortage of qualified technical instructors.

According to Baah-Boateng (2015), the unemployment rates tend to rise with higher levels of education and decrease with age, highlighting a labour market in which younger, more educated individuals face more difficulty securing employment. This challenge is worsened by the dominance of the informal economy, being 88% in 2013.

2.3 AGRICULTURE AND RURAL DEVELOPMENT

According to Statista (2025), agriculture contributes 21,1% to Ghana's gross domestic product (GDP). While 54% of the population now resides in urban areas, agriculture is employing approximately 70% of the rural population. However, these rural areas face significant limitations in economic, physical, and human capital compared to urban regions (Baffoe et al., 2021). Moreover, the agriculture sector is largely characterised by low productivity and informality, with smallholder farmers producing around 80% of national agricultural output using basic technology (Ministry of Food and Agriculture, 2007). Particularly outside urban centres, agriculture is rain-fed, leaving it highly vulnerable to climate variability. Therefore, the agricultural sector has the potential to contribute to economic growth, ensure food and nutritional security, and create meaningful employment opportunities for youth (Kidodo et al., 2017).

Yet, realising the potential of this sector requires addressing educational and infrastructural gaps. Access to quality, practice-oriented agricultural education remains limited, especially in rural areas. Opoku-Asare and Siaw (2015) argue that bridging the rural-urban divide in education is essential for enabling rural youth to actively participate in agricultural transformation. Currently, agriculture remains the dominant employer of unskilled labour (Kidodo et al., 2016), indicating a pressing need for more technical and entrepreneurial training tailored to rural realities.

2.4 CONCLUSION

Ghanaian youth, particularly in rural areas, face challenges consisting of high unemployment, limited access to practice-oriented education, and a strong reliance on informal networks for opportunity. At the same time, the agricultural sector holds potential to contribute to economic development, food and nutrition security, and youth employment.

These contextual challenges underline the importance of programmes that aim to empower youth through accessible, practical, and locally relevant agricultural education. The ACHI programme responds directly to this need by equipping young people with horticultural and entrepreneurial skills tailored to rural realities.

3. STRATEGIC ANALYSIS OF ACHI

This chapter presents a comprehensive strategic analysis of the ACHI programme to gain a deeper understanding of its current position and potential for growth. It uses PESTLE, sustainable business model canvas, competitor, and SWOT analyses, with each step building on the previous one to deepen insights. The chapter concludes by defining ACHI's positioning and key strategic opportunities.



3.1 PESTLE ANALYSIS

ACHI operates within the broader Ghanaian horticulture sector. The PESTLE analysis identifies relevant political, economic, social, technological, legal and environmental factors to explore this broader macro-environmental context (Yüksel, 2012). Understanding these external influences is important for identifying strategic opportunities and risks for ACHI.

3.1.1 POLITICAL FACTORS

The political context in Ghana presents opportunities and close collaboration with the ACHI programme. The government actively supports agricultural development through the Ghana trade policy documents, assisting agricultural producers through services and subsidies (Amoah, 2014).

The Ministry of Food and Agriculture (MoFA) serves as the coordinating section of the government and implements policies within the agriculture sector. They are key in guiding agricultural strategy and ensuring alignment with national socio-economic goals (Ministry of Food and Agriculture, n.d. a).

However, the Ghanaian government is elected every four years, which introduces a risk of policy discontinuity (Keteku, 2017). A change in ruling party may lead to shifts in national priorities, funding allocations, and regulatory frameworks.

3.1.2 ECONOMIC FACTORS

The horticulture sector in Ghana offers opportunities for economic growth, driven by both growing domestic demand and export market potential. The agriculture sector grew by 7,4% in 2020, mainly because of crops (Egyir et al., 2022). There is a growing domestic demand for nutritious fruits and vegetables because of health awareness, and the hospitality industry increasingly incorporates vegetables into their menus, and increased urbanisation (UNDESA, 2011).

There are more imports than exports for vegetables (ComTrade, 2015), suggesting local production is not adequate to meet the demand. Where the exports for vegetables and fruits are minimal.

Moreover, the gross margins of vegetable producers are significantly higher than maize and rice farmers (Van Asselt et al., 2018). They also noted that horticultural crops such as pineapple, tomatoes, onion, carrot, and Scotch Bonnet generate more income for farmers than cereals, providing good opportunities for poverty reduction (Assibey-Yeboah & Koomen, 2019).

This implies that the export-based horticulture sector has the potential to increase farmer income and create jobs. Lack of processing facilities and cold chain infrastructure constrains sector growth.

3.1.3 SOCIAL FACTORS

The social context consists of a strong social structure and cultural values. Ghanaian culture underscores the significance of hierarchy, where age, experience, and social standing play crucial roles in defining relationships and decision-making (Darley & Blankson, 2020; Wiredu, 1980). Traditional preferences and established food habits continue to dominate production choices.

Moreover, people are more focused on health benefits from fruits and vegetables, particularly their rich vitamin and mineral content, causing an increased demand for nutritious produce (Egyir et al., 2022).

3.1.4 TECHNICAL FACTORS

Technological development is enhancing production and increasing profit (Nin et al., 2003). However, the horticulture sector in Ghana faces several technical challenges that hinder productivity and efficiency. Firstly, there is limited adoption of modern farming equipment, which restricts mechanisation and reduces the efficiency of production processes (Anang, 2018; Akudugu et al., 2012).

Secondly, Ghana has up to 54% fruit and vegetable post-harvest losses due to a lack of appropriate technologies for processing, transporting, handling and storage of crop produce (Sugri et al., 2021).

3.1.5 ENVIRONMENTAL FACTORS

Climate change is negatively affecting horticultural production in Ghana. Rising temperatures and decreasing rainfall increase water stress, reduce soil quality and intensify pest and disease outbreaks. These changes result in declining yields and greater post-harvest losses, affecting smallholder farmers. Common strategies include fertilisation, supplementary irrigation, crop rotation and intercropping (Williams et al., 2018).

3.1.6 CONCLUSION

The PESTLE analysis shows that while Ghana's horticulture sector faces challenges, it also offers opportunities for the ACHI programme.

- *Politically:* ACHI can benefit from working closely together with the government through the MoFA's initiatives.
- *Economically:* the increasing demand for fruits and vegetables creates potential for income generation and job creation.
- *Socially:* ACHI operates within a culture that values hierarchy and traditional food practices, which must be acknowledged when designing interventions and engaging communities.
- *Technologically:* ACHI needs a proper strategy to make people adopt modern farming techniques.
- *Environmentally:* smallholder farmers are vulnerable to climate change, and ACHI advocating for climate-smart practices may boost the use of modern farming techniques.

3.2 SUSTAINABLE BUSINESS MODEL CANVAS

To ensure long-term impact and viability, it is important to understand how the ACHI programme creates, delivers, and captures value. This includes economic, social and environmental aspects. The Sustainable Business Model Canvas presents a structured framework to map out the programme’s core elements, showing how ACHI’s business model supports its mission through sustainable value creation for the stakeholders (Joyce & Paquin, 2016).

3.2.1 VISUAL OVERVIEW

To provide a clear understanding of ACHI’s business structure, the Sustainable Business Model Canvas is presented in figure 2. This visual offers an overview of ACHI’s economic, social, and environmental value creation to see how all elements are connected to each other.

3.2.2 CUSTOMER SEGMENT

ACHI works for a wide range of stakeholders, with a primary focus on empowering young people through professional horticultural and entrepreneurial training.

Primary customers that are directly targeted for the educational programme are:

- Aspiring small commercial vegetable farmers who are seeking practical skills and knowledge to start or improve their horticultural businesses.
- Agricultural entrepreneurs who aim to expand their agribusiness activities with sustainable practices and better market access.
- Motivated individuals who have a strong interest in horticulture or entrepreneurship.
- Students at the Agricultural Colleges who benefit from the hands-on training, which complements their academic education.

Secondary customers that are enabling and scaling the impact of the programme are:

- The MoFA, which is a governmental partner. MoFA is essential to the implementation and scaling of ACHI in Ghana.
- Lead farmers who demonstrate good farming practices and serve as an example for other small commercial vegetable farmers, both to bring sustainable farming practices to the communities.
- Private sector companies to foster innovation in Ghana.
- Agricultural input suppliers and buyers who benefit from a growing network or reliable, well-trained producers and market-ready crops.

3.2.3 VALUE PROPOSITION

ACHI offers benefits for its diverse customer segments, centred on practical learning, empowerment, and systemic impact in the horticulture sector. At the core, ACHI is offering a practical, hands-on horticultural and entrepreneurial training programme that empowers individuals, regardless of their background, with the skills, mindset, and connections needed to pursue a successful career in horticulture.

This combination of horticulture and entrepreneurship ensures that the participants leave the programme equipped to grow crops and to build and sustain their businesses. Participants also receive official certification and recognition, strengthening their professional credibility and improving their access to future opportunities.

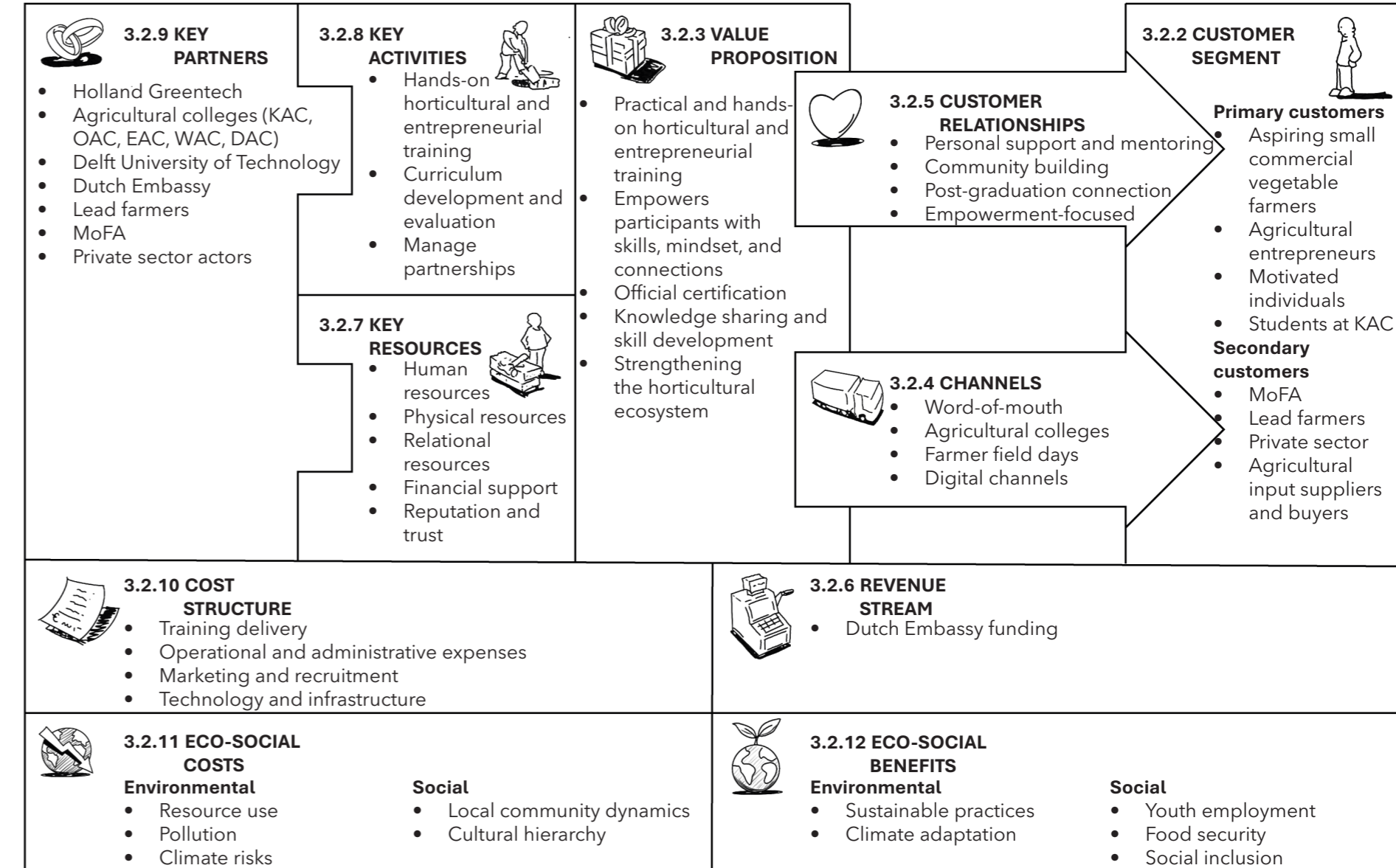


Figure 2: Overview of Sustainable Business Model Canvas

For secondary stakeholders, ACHI serves as a strategic platform for advancing shared goals. The programme supports knowledge distribution and skill development within communities.

For development partners, ACHI offers a practical way to invest in sustainable livelihoods, while suppliers and buyers of agricultural input benefit from a growing base of market-ready professional producers.

In this way, ACHI empowers individuals while strengthening the horticultural ecosystem, contributing to a more inclusive, resilient, and productive horticulture sector in Ghana.

3.2.4 CHANNELS

ACHI reaches its target audience through personal, community-based, and institutional channels. One of the main recruitment channels is word-of-mouth. Graduates of the programme often become enthusiastic ambassadors, sharing their experiences and recommending the programme within their communities. This will be addressed in more detail in Chapter 4.

The agricultural colleges also serve as an important channel, especially for students seeking practical experience to complement their theoretical knowledge. Additionally, farmer field days, organised by Holland Greentech, lead farmers and the MoFA, offer a platform to showcase their ACHI approach to hands-on training, entrepreneurship, and climate-smart practices.

Finally, digital channels, especially WhatsApp, facilitate communication and recruitment through existing social networks. Many applicants hear about the programme through messages forwarded by friends, family members or stakeholders.

3.2.5 CUSTOMER RELATIONSHIPS

ACHI aims for strong, supportive, and long-term relationships with its participants by offering personal support and mentoring throughout the programme. Trainers and coordinators closely guide participants, helping them build both technical skills and confidence. Beyond the training itself, ACHI aims for community building, encouraging an environment where participants learn from each other and grow together. This sense of belonging is further nurtured through empowerment-focused interactions, where every individual is encouraged to take initiative and develop their path in horticulture and business.

After graduation, participants stay connected through dedicated WhatsApp groups, which serve as an informal support system and as a hub for knowledge exchange, collaboration, and continued inspiration.

3.2.6 REVENUE STREAMS

ACHI's operations are primarily sustained through funding provided by the Dutch Embassy, which supports the programme's mission to empower youth in agriculture through practical training and entrepreneurship.

3.2.7 KEY RESOURCES

ACHI leverages human, physical, and relational resources to deliver its programme effectively. Central to its operation are the teachers, lead farmers, coordinators, support staff, and alumni who contribute their knowledge, experience, and commitment to the programme.

Moreover, the programme leverages essential educational equipment, consisting of college fields and dedicated demonstration farms, facilitating practical, hands-on learning experiences and sustainable practices.

ACHI is further strengthened by its partner network, consisting of the agricultural colleges, development partners, and local institutions. Financial support from the Dutch Embassy and contributions from partners ensure the continuity and sustainability of the programme.

Lastly, ACHI's reputation and trust are important for continuity and long-term impact.

3.2.8 KEY ACTIVITIES

ACHI's core activities are delivering a comprehensive educational programme that integrates both horticultural and entrepreneurial training. Central to this are the hands-on training sessions and specialised horticultural courses designed to equip participants with practical skills and market-oriented knowledge.

Entrepreneurial components of the curriculum foster business insights and stimulate innovation. Ongoing curriculum development ensures that the programme remains aligned with industry trends and the changing needs of participants, combining with monitoring and evaluating the programme for improvement.

In addition, ACHI is managing the partnerships together with Holland Greentech to deliver the impact.

3.2.9 KEY PARTNERS

The resources and activities are built upon a strong network of key partners. The key partners of the programme and also the founding partners are:

- Holland Greentech, offering expertise, climate-smart practices, and a strong network.
- The five agricultural colleges (KAC, OAC, EAC, WAC, and DAC), hosting the ACHI programme, offering practical field space and teachers.
- Delft University of Technology, evaluating and revising the curriculum, training ACHI's teachers, and essential in the training-of-trainers modules.

The main partners that are key in the continuity of ACHI are:

- The Dutch Embassy, providing key financial support for reinforcing the programme's sustainability and long-term vision.
- Lead farmers, serving as local ambassadors of the programme, sharing practical expertise and ensuring community-level relevance. They advocate for climate-smart practices and modern farming techniques.
- The MoFA, authorising external activities. They ensure alignment with national priorities and provide access to public infrastructure.
- The private sector actors, creating linkages between graduates and the wider horticultural value chain, fostering entrepreneurial opportunities and supporting the programme's goal of inclusive, market-driven development.

3.2.10 COST STRUCTURE

The cost structure of ACHI reflects the key investments required to deliver the educational programme. This is dedicated to the training delivery, operational and administrative costs, marketing and recruitment, and technology and infrastructure supporting communication, monitoring and evaluation.

3.2.11 ECO-SOCIAL COSTS

ACHI has broader eco-social costs associated with its activities. From an environmental perspective, horticultural production involves using natural resources such as water, land, and energy. If not managed carefully, these inputs can contribute to environmental degradation, including water scarcity, soil depletion, and increased greenhouse gas emissions.

Additionally, improper disposal of agricultural inputs may lead to pollution and waste accumulation (Stringer, Fraser, Harris, Lyon, Pereira, Ward & Simelton, 2020).

Next to that, the programme operates in a country that has to deal with climate change, such as erratic rainfall patterns and rising temperatures, which may affect crop yield and long-term sustainability.

From a social perspective, ACHI interacts with local community dynamics, especially since it promotes youth participation and modern farming techniques in a traditionally elder-dominated sector with an average age of 55 years (Ministry of Food and Agriculture, n.d.). This can shift social roles and hierarchies, creating both opportunities and possibly tensions.

Next to that, cultural considerations such as hierarchy (Darley & Blankson, 2020) must be respected to ensure community acceptance and the successful adoption of new practices.

3.2.12 ECO-SOCIAL BENEFITS

ACHI is generating eco-social benefits for individuals, communities, and the environment. From an environmental perspective, the programme promotes sustainable agricultural practices that reduce dependency on harmful chemicals, improve soil health, and encourage efficient resource use (Horrigan, Lawrence & Walker, 2002; Tahat, Alananbeh, Othman & Leskovar, 2020; Chen, Liu & Whei, 2023).

Through training and demonstration, ACHI supports climate adaptation, such as drip irrigation and poly tanks, helping farmers build resilience against erratic weather patterns and environmental stresses.

On the social side, ACHI is important in job creation, particularly for young people. By equipping participants with practical horticultural and entrepreneurial skills, the programme contributes to nutrition and food security, increasing the availability of diverse vegetables.

It also promotes capacity building through structured training, empowering individuals to become self-reliant. Moreover, ACHI fosters social inclusion, creating opportunities for women, youth, and other groups to participate in and benefit from modern horticulture.

3.2.13 CONCLUSION

The Sustainable Business Model Canvas of ACHI shows that ACHI provides practical and entrepreneurial horticultural training to young people and builds a wider support ecosystem involving the government, lead farmers, and private sector partners. Its value proposition empowers individuals with the skills and mindset to succeed in sustainable agribusiness while strengthening Ghana's broader horticulture sector. Although the programme depends on external funding and faces eco-social risks, such as environmental pressures and cultural hierarchy, it also generates significant benefits, including job creation, improved food security, community capacity building, and climate-resilient farming practices. By effectively integrating its resources, partnerships, and activities, ACHI not only addresses existing challenges but also creates lasting social, economic, and environmental value, positioning itself as a catalyst for inclusive and sustainable transformation in Ghana's horticulture sector.

3.3 COMPETITOR ANALYSIS

The competitor analysis identifies programmes and institutions in Ghana that provide services overlapping with ACHI. The goal is to identify ACHI's position in this ecosystem and understand how to strategically distinguish from them.

3.3.1 MARKET LANDSCAPE

Numerous initiatives are offering technical, vocational, entrepreneurial, or agricultural training focusing on youth employment and agricultural development in Ghana. The following sectors offer services or training which overlap with the ACHI's focus on Technical and Vocational Education and Training (TVET) in horticultural and entrepreneurial:

- Government and public training institutions
- Academic institutions
- Private sector

3.3.2 GOVERNMENT AND PUBLIC TRAINING INSTITUTIONS

These actors are part of Ghana's national agenda to promote technical and vocational education, youth employment, and agricultural development.

- Ghana TVET Service offers formal and informal vocational training across sectors, including agriculture subjects. However, it is often classroom-based, and its agriculture content is not specifically horticulture-focused. (Ghana TVET Service, n.d.)
- Youth in Agriculture Programme (YIAP) is an initiative from Ministry of Food and Agriculture aiming to make agriculture attractive to youth by offering land, inputs, and technical support across farming sectors. (Ministry of Food and Agriculture, n.d. b)

3.3.3 PRIVATE SECTOR

These actors support the startup phase of young-led businesses, with a focus on business development, mentorship, and pitching. Their focus is often on later-stage entrepreneurship rather than foundational skills.

- Kumasi Business Incubator (KBI) supports youth-led start-ups through pitch competitions, mentorship, and incubation. While it includes business tracks, participants are expected to already have a business idea. (Kumasi Business Incubator, n.d.)
- Consulting and Business Incubation Centre (CBIC) offers consultancy and business development for students and SMEs. It focuses on enterprise support without addressing horticultural or practical training. (Kumasi Technical University, n.d.)
- Kosmos Innovation Center (KIC) empowers young entrepreneurs through tech-driven agribusiness challenges and incubation. The focus is on innovation, digital solutions, and pitching. (Kosmos Innovation Center, n.d.)
- GOPA AFC supports through MSME development, enterprise upgrading, and strategy consulting. While valuable for economic development, it does not offer basic horticultural or practical training. (GOPA AFC, n.d.)

3.3.4 ACADEMIC INSTITUTIONS

These institutions offer formal degrees in agriculture, targeting students with prior certification. Their education is largely focused on research and theory.

- The top 3 universities in horticulture-related subjects are University of Ghana, Kwame Nkrumah University of Science and Technology, and University for Development Studies. These universities provide advanced education. (EduRank, n.d.)
- The agricultural colleges Kwadaso, Wenchi, Damongo, Ejura and Ohawu Agricultural College offer agricultural education. While some practical elements are included, the programmes are mostly classroom-based. (Ministry of Food and Agriculture, n.d. c)

3.3.5 CONCLUSION

ACHI has a unique and valuable position within Ghana's ecosystem of horticulture and entrepreneurship. Unlike most government programmes, academic institutions, incubators and private consulting that focus on formal education, agribusiness support or later-stage entrepreneurship, ACHI combines practical horticulture training with entrepreneurship development. Low barriers to entry and an inclusive approach allow people with limited formal education to access essential skills. Therefore, ACHI fills the gap before starting the startup by equipping people with horticultural knowledge and the entrepreneurial mindset needed to start a viable business.

This accessible combination of hands-on training in horticulture and entrepreneurship distinguishes ACHI from competitors that often focus on theory, formal qualifications and late-stage business support. Because these actors are not competing directly and operate at different stages, they can be potential strategic partners. Collaborating with them offers the opportunity to build a strong network within Ghana's horticulture sector.

Table 1: Overview of competitor analysis

CRITERIA	ACHI	Ghana TVET Service	YIAP	Universities	Agricultural colleges	KBI	CBIC	KIC	GOPA AFC
Institution	Public	Government	Government	Academic	Academic	Private	Private	Private	Private
Target group	Anyone	Anyone	Youth	SHS grads	SHS grads	Young entrepreneurs	SMEs and students	Young entrepreneurs	MSMEs
Training style	Theory and practical	Theory	Theory	Theory	Theory	Theory	Mentoring and consulting	Mentoring	Consulting
Entry barrier	Low	Low	Low	High	High	Moderate	Moderate	Moderate	Moderate
Tuition	No	Unknown	Unknown	Yes	Yes	Unknown	Unknown	Unknown	Unknown
Duration	4 months	Unknown	Unknown	4 years	3 years	Unknown	Unknown	Unknown	Unknown
Entrepreneurship	Strong	Moderate	Weak	Weak	Weak	Strong	Strong	Strong	Strong
Horticulture	Strong	Moderate	Strong	Strong	Strong	Weak	Weak	Weak	Weak
Practicals	Strong	Strong	Strong	Weak	Weak	Weak	Weak	Weak	Weak

3.4 SWOT ANALYSIS

A SWOT analysis, consisting of strengths, weaknesses, opportunities, and threats, provides an overview of the internal and external factors influencing the ACHI programme (figure 3). By identifying this, the analysis supports strategic decision-making and highlights areas for growth and resilience (Namugenyi et al., 2019).

3.4.1 STRENGTHS

Exploring the strengths of the ACHI programme involves internal factors that contribute to its current performance and potential for growth. These strengths reflect the programme's internal resources, capabilities, and distinguishing characteristics.



Figure 3: Overview of SWOT analysis

ACHI's core strengths are its practical and entrepreneurial approach to horticultural education. By combining hands-on training with a strong focus on Technical and Vocational Education and Training, the programme equips participants with essential horticultural skills and the mindset and tools for business development. The curriculum is enriched by technical expertise in areas, including crop and water management and modern farming techniques, ensuring relevance to horticultural challenges mentioned in the PESTLE analysis. ACHI employs innovative equipment and modern farming technologies to enhance learning and to increase exposure to climate-smart practices.

Next to that, ACHI benefits from a robust network both locally and internationally, consisting of educational and governmental institutions and private sector actors, strengthening its implementation capacity and outreach. Its growing reputation and commitment to sustainable agriculture further reinforce ACHI's position as a credible and forward-thinking initiative within Ghana's horticulture sector.

3.4.2 WEAKNESSES

Examining the weaknesses of the ACHI programme involves identifying internal limitations that may hinder its effectiveness or growth. Recognising these internal challenges provides insight into areas that require attention or improvement. Despite its strengths, ACHI faces several challenges that may hinder its long-term sustainability and scalability. ACHI has limited access to finance, depending on external funding and is creating operational vulnerabilities, as any changes in funding could disrupt the programme's continuity.

Moreover, while ACHI provides entrepreneurial and horticultural training, alumni often face difficulties accessing finance to start or expand their horticultural businesses. This gap between expectation and support can lead to frustration among graduates, who receive guidance and network access but not direct financial assistance. This will be addressed in more detail in Chapter 4.

In addition, the programme is driven by a collaborative effort between three key partners (KAC, HGT, and TU Delft). If one of these key partners withdraws, a substantial part of the network and its collective strengths may be lost, potentially weakening the programme's foundation.

There are knowledge gaps among local farmers, especially regarding modern horticultural practices, which can delay the adoption of improved methods promoted through ACHI. Ghana has local water shortages and seasonal ground water level fluctuations (Agodzo, Bessah & Nyatuame, 2023), needing a clear management of climate-smart practices.

3.4.3 OPPORTUNITIES

Identifying opportunities in the external environment is important for enhancing the ACHI programme's impact and relevance. These external factors arise from broader trends, developments, and conditions that could support ACHI's goals and strategic direction. ACHI can leverage several opportunities within the broader horticultural and socio-economic landscape.

Strengthening connections with export markets can lift the ACHI programme, particularly through partnerships with actors who understand international quality standards and logistics. Technological advancements in areas such as irrigation, greenhouse cultivation, and digital agriculture also present opportunities to modernise training and improve productivity among participants while tackling sustainable challenges.

Moreover, developing follow-up training and continuous education programmes could enhance long-term impact by supporting alumni in scaling their businesses and staying current with innovations. Additionally, public-private partnerships offer opportunities for increased investment, resource sharing, and co-development of infrastructure and services.

3.4.4 THREATS

Potential threats from the external environment may negatively affect the ACHI programme's performance or sustainability. Recognising these external risks is important for developing a resilient strategy. ACHI operates in an external environment that presents several risks to its success and impact. Potential policy instability and shifting government priorities may affect the long-term collaboration with the governmental institution Ministry of Food and Agriculture. Changes in national horticultural strategies could lead to reduced support or realignment of priorities that do not align with ACHI's objectives, threatening programme continuity.

Additionally, competition from other agricultural training initiatives may reduce ACHI's appeal among prospective participants and stakeholders. Moreover, climate change is a threat, with increasing weather variability undermining the reliability of horticultural outputs. Additionally, market fluctuations, including unpredictable changes in demand and vegetable prices, create financial uncertainty for graduates engaged in commercial horticulture.

3.4.5 CONCLUSION

The SWOT analysis shows that ACHI has a strong foundation, combining practical horticultural training with an entrepreneurial focus and a robust network of partners. However, ACHI's long-term sustainability is challenged by internal weaknesses such as dependency on external funding, limited post-training and financial support for alumni, and the reliance on key partners. Indirect weaknesses, including inadequate irrigation infrastructure and fluctuating local markets, may also hinder the success of graduates. At the same time, external threats such as climate change, policy shifts, and competition from other agricultural initiatives require strategic foresight and resilience. Despite these risks, ACHI is well-positioned to seize several opportunities, including export market linkages, technological advancements, continuous learning programmes, and strengthened public-private partnerships. To remain impactful, ACHI must address its weaknesses, manage threats, and strategically leverage opportunities to enhance its contribution to sustainable agriculture, youth empowerment, and food security in Ghana.



3.5 SYNTHESIS OF ANALYSES

By integrating insights from the PESTLE analysis, Sustainable Business Model Canvas, competitor analysis and SWOT analysis, ACHI can clarify its role in Ghana's horticulture sector and define how it can create the most value. The programme combines youth employment, horticultural innovation, and climate resilience, offering practical solutions where they are most needed.

3.5.1 MISSION AND VISION

ACHI's mission is to enhance economic development in Ghana's horticulture sector by stimulating green growth and tackling youth unemployment. Building on this, ACHI's vision is a future where climate-smart practices are widely adopted, ensuring food security and combating environmental challenges, while generating business opportunities and a strong network of and for Ghanaian and Dutch companies active in the Ghanaian horticulture chain (TU Delft, 2023).

3.5.2 CORE MESSAGE

ACHI is a practical and empowering education programme that equips young people in Ghana with hands-on skills in horticulture and entrepreneurship to build a sustainable and inclusive future. Rooted in collaboration between local colleges, Dutch expertise, and industry partners, ACHI strengthens youth employment, food security, and sustainable growth, shaping a resilient and inclusive horticulture sector for the future. ACHI's purpose: Planting skills, harvesting opportunities.

3.5.3 TARGET AUDIENCE

As mentioned in the Sustainable Business Model Canvas, ACHI targets diverse individuals within the horticulture sector. Its primary audience includes aspiring small commercial vegetable farmers, agricultural students seeking practical application of their academic knowledge, and emerging entrepreneurs aiming to build or scale sustainable horticultural businesses. Secondary stakeholders include institutions such as the Ministry of Food and Agriculture, lead farmers, partners, agricultural input suppliers, and market buyers, each contributing to the broader horticultural ecosystem that ACHI supports.

3.5.4 VALUE PROPOSITION

ACHI offers a unique combination of hands-on horticultural training and entrepreneurial development, equipping participants both with the practical skills and business mindset necessary for a successful business in the horticulture sector. The programme is embedded within educational institutions and supported by both public and private actors, enabling it to deliver a high-quality, practice-oriented curriculum that is directly relevant to local and regional market needs. Graduates receive official certification and continued network support, increasing credibility and employability. For secondary stakeholders, ACHI helps build a more resilient, skilled, and market-ready horticultural workforce.

3.5.5 DIFFERENTIATION

ACHI distinguishes itself from other agricultural or entrepreneurial initiatives through its unique approach of combining horticultural theory and practices, together with relevant entrepreneurship and climate-smart practices. By expanding both the theoretical and practical knowledge in those two areas, the graduates are ready to directly implement this in the real world. Community-based demonstration fields ensure that learning is practical, applicable, and sustainable. Besides, ACHI is accessible for anyone, there is no need for certification or prior knowledge. Moreover, its long-term vision is not only to train individuals but to catalyse systemic change in Ghana's horticultural landscape by building stronger market linkages and promoting youth inclusion in horticulture.

3.5.6 POSITIONING

For aspiring small commercial vegetable farmers and agricultural entrepreneurs in Ghana, ACHI offers a practice based horticultural & entrepreneurial education programme that has hands-on training, entrepreneurial development, and access to a supportive network, that creates market opportunity and gives people the confidence and empowerment to express themselves as capable, independent agripreneurs driving innovation and change their communities.



Figure 4: Visualisation of the positioning

3.6 CONCLUSION

Through the strategic analyses, the sub-research question – *What is ACHI's current positioning within the Ghanaian horticulture sector?* – is addressed.

ACHI positions itself as a practical and empowering educational programme that responds to critical challenges within the horticulture sector, the growing need for climate-resilient farming practices, and the combination with entrepreneurship. By utilising partnerships with local institutions, integrating Dutch expertise, and collaborating with a network of stakeholders, ACHI delivers accessible, hands-on training and entrepreneurial support aligned with market demands.

Its value proposition extends beyond individual capacity-building to contributing to systemic transformation through the promotion of sustainable development, inclusion, and improved market linkages. In comparison to other initiatives, ACHI distinguishes itself through its integrated and inclusive approach. This positioning not only defines ACHI's current role in the sector but also provides a foundation for enhancing its identity, communication and long-term development.





4. MAPPING THE PARTICIPANT'S EXPERIENCES

This chapter maps the participant journey of ACHI by exploring the views of current participants and alumni of the ACHI programme, based on interviews and questionnaires. Their experiences, motivations, and challenges are analysed and visualised in the participant journey map, outlining the phases and touchpoints to identify areas for improvement across the participant journey.

4.1 RESEARCH APPROACH

As illustrated in the overview (figure 5), data was collected through interviews and questionnaires conducted with both current participants and alumni. Each data source was analysed separately to identify key themes and insights (Appendix A2, A4, A6, and A8). Following, the results were synthesised per group, participant and alumni, allowing for an understanding of each group's experience. These synthesised insights then informed the development of the participant journey map, which visualised the combined findings and highlights touchpoints and pain points.

Two different approaches, interviews and a questionnaire, were used to get the perspective of both current participants and alumni of the ACHI programme. The interviews were conducted with 14 current participants and with 10 alumni, while the questionnaires were conducted with 37 current participants and with 22 alumni.

4.1.1 INTERVIEWS

The current participant interviews were conducted with 14 interviewees at Kwadaso Agricultural College, of which 12 were external participants and 2 were KAC students. Additionally, 6 of the interviewees were already engaged in farming, while 8 had no prior experience. A semi-structured interview (Appendix A1) was held individually in the classroom environment to explore the participants' motivation, expectation and experiences. The full analysis is presented in Appendix A2.

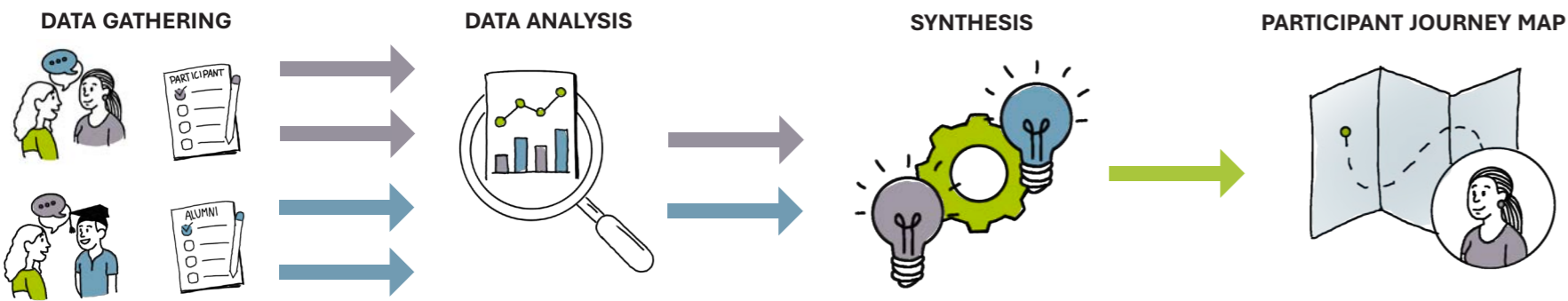


Figure 5: Overview of the user-centred data process

4.2 PARTICIPANT RESULTS

The results of the participant interviews and questionnaire were combined and grouped into four overarching themes: discovering ACHI, motivation to join ACHI, expectations & learning goals, and the application process.

4.2.1 DISCOVERING ACHI

Participants became aware of ACHI through different channels and had different experiences when seeking additional information. Participants first heard about ACHI mostly from their personal networks (friends, family, former participants), followed by social media (mainly via WhatsApp or Holland Greentech), and Kwadaso Agric Cultural College. They mainly received or saw the flyer as initial information. While this was sufficient for some participants, others sought further details by contacting former participants or other contacts. A few engaged in online research, exploring the programme through web searches and social media platforms.

64,9% of the questionnaire participants found it extremely easy to access information. However, some interviewees noted that information is spread, requiring them to verify its accuracy first. The most effective communication channels identified were word-of-mouth, flyers, and social media posts. Despite this, there was a general call for more visible and centralised communication to improve accessibility, trustworthiness and clarity.

The alumni interviews were conducted with 10 alumni spread from batches 1 to 6 (2021-2023). Half of the interviewees were external participants during their programme, and half were KAC students. Similarly, 6 are working in the horticulture value chain, while the other 4 are either studying or working in other fields. The semi-structured interviews focused on alumni experiences and current engagement with ACHI (Appendix A3) and were held either in the ACHI office or at the alumni's farm. Themes were developed through clustering. The full analysis is presented in Appendix A4.

4.1.2 QUESTIONNAIRE

A questionnaire was distributed to all current participants at KAC, resulting in 37 responses. The survey included both closed and open-ended questions (Appendix A5) covering demographic information, educational background, previous experiences, motivations, and self-assessed entrepreneurial competencies. The data was analysed to identify trends in participant backgrounds and motivations. The full analysis is presented in Appendix A6.

Another questionnaire was distributed via the alumni platform and completed by 22 alumni across all 6 batches. The survey included both quantitative and qualitative questions to explore satisfaction with the programme, engagement levels, and perceived value (Appendix A7). Demographic and batch data were collected alongside qualitative reflections on their experiences. The full analysis is presented in Appendix A8.

4.2.2 MOTIVATION TO JOIN ACHI

Participants had a range of motivations for joining the ACHI programme, which can be categorised into three main themes: acquiring knowledge and skills, pursuing a passion for agriculture, and building a career in horticulture and agribusiness. Gaining horticultural and entrepreneurial knowledge was the main motivation, followed by the passion for agriculture and career aspirations in horticulture. From the questionnaire, it showed that 67,6% of the current participants had not followed horticulture courses before, and 51,5% had not followed entrepreneurship courses before.

4.2.3 EXPECTATIONS & LEARNING GOALS

Participants expect that the programme is focused on both technical and business-related knowledge, building a network, and applying their learning toward real-world goals. Participants expected hands-on learning in areas like farming, irrigation, pest control, and year-round vegetable cultivation. Moreover, participants want to know how to start and manage a business, develop a business plan, and pitch their ideas. Moreover, the questionnaire showed that the majority wanted to learn how to combine horticulture and entrepreneurship, with a focus on value addition and marketing. Many saw ACHI as an opportunity to connect with peers, alumni, facilitators, and industry professionals to grow their network and business prospects.

4.2.4 APPLICATION PROCESS

The application process for the ACHI programme can be structured into four key stages: (1) first contact, (2) application, (3) interview, and (4) selection. Participants' experiences varied slightly, but the steps were perceived as clear and manageable.

As mentioned in discovering ACHI, participants learned about ACHI through personal networks, KAC, and via Holland Greentech's platforms, social media, events and training sessions. Flyers played a key role in raising awareness and first information supply. After discovering the programme, applicants filled out an online form with basic personal and educational details, and they had to hand in their CV and a motivational letter. Most found this step straightforward. Followed by an interview to further assess the candidates. During the selection, accepted participants were informed via phone call after completing the interview, and experienced as smooth and well-communicated.

4.3 ALUMNI RESULTS

The results of the alumni interviews and questionnaire are combined as well and grouped into four overarching themes: programme experiences and perceived impact, alumni engagement and interaction, post-programme challenges, ongoing needs and aspirations.

4.3.1 PROGRAMME EXPERIENCES AND PERCEIVED IMPACT

The overall experience of ACHI has been positively received by participants, both in the survey responses and the interviews. According to the questionnaire, the majority of respondents rated their overall satisfaction with ACHI, communication during ACHI, and satisfaction with communication during the application as well and very well. Moreover, during interviews, it became clear that the alumni improved their horticultural and entrepreneurial skills, where they cultivate more and plan their crops. Moreover, their mindset shifted, resulting in more confidence and adaptability.

The overall experiences of the ACHI programme have been positively received by participants, as reflected in both the questionnaire responses and the interviews. According to the questionnaire, the majority of respondent rated their overall satisfaction with ACHI, communication during the application process, and communication during the programme as either good or very good.

Furthermore, interview data highlighted improvement in participants' skill development, particularly horticultural and entrepreneurial competencies. Alumni noticed increased ability in crop cultivation, planning, and farm management, but also in the soft skills including leadership, communication and teamwork. This skill development was accompanied by a shift in mindset, characterised by enhanced confidence, a proactive attitude, and better adaptability in facing challenges.

Quantitative findings further reinforce these outcomes. 64% of the alumni are currently working in a field related to horticulture and 73% in entrepreneurship, indicating that the programme has successfully supported participants in pursuing careers aligned with ACHI's objectives. Moreover, 59% of respondents use the skills and knowledge gained from the programme on a daily basis, with an additional 14% using them weekly, and 9% monthly. Only a minority said using them rarely (14%) or never (5%).

Finally, a strong indication of ACHI's perceived value is the willingness among all alumni to recommend the programme to others.

4.3.2 ALUMNI ENGAGEMENT AND INTERACTION

Alumni engagement within ACHI is primarily facilitated through digital platforms, particularly WhatsApp groups that is set up by ACHI for the entire alumni network. This platform is used for sharing challenges, updates, and announcements from ACHI regarding events and new programmes. However, participation is described as limited, with several alumni saying that the platform is not too active. More interaction occurs within smaller peer groups from the same batch, where alumni regularly exchange advice, share experiences, and collaborate informally.

In contrast, interaction across batches is minimal and only when being connected to each other via ACHI, which restricts broader community building. A smaller subset of alumni maintains close contact with ACHI staff, seeking guidance or being personally invited to participate in events such as training sessions, industry visits, and motivational talks. These selected activities serve as touchpoints for ongoing engagement, though they primarily involve alumni already in the staff's network.

4.3.3 POST-PROGRAMME CHALLENGES

After completing the ACHI programme, alumni encounter several challenges that hinder the development and sustainability of their horticulture enterprises, regarding business and horticultural practices and environmental challenges. Alumni face financial and operational difficulties, with limited access to funding constraining their ability to invest in essential horticultural inputs such as seeds, fertilisers, and equipment. Additionally, a lack of networking opportunities contributes to hindering business development.

Horticultural, technical and knowledge-related issues continue to pose difficulties for alumni in implementing effective horticultural practices. These include challenges in selecting appropriate seeds for specific crops and local conditions, as well as limited knowledge about safe and efficient pesticide use. Many alumni expressed a desire for ongoing learning to remain up to date with modern horticultural techniques and technologies.

4.3.4 ONGOING NEEDS AND ASPIRATIONS

Alumni prefer expectations, desires, and a support system for their continued personal and professional growth following completion of the programme, including continuous learning, access to resources, networking opportunities, and participation in ongoing programme activities.

A need expressed by alumni, is the opportunity for continued education to remain competitive and knowledgeable in the evolving horticulture sector. Alumni emphasised the importance of capacity building to enhance their technical expertise and confidence in applying acquired skills. Additionally, alumni reported that while no aspect of the training was perceived as irrelevant, several indicated a desire for additional education in areas beyond the core programme.

Furthermore, entrepreneurship education was highlighted as an area requiring further development. Alumni proposed the inclusion of training in business skills, product commercialisation, and elevator pitching. Alumni also expressed interest in networking opportunities to foster professional growth and collaboration. They mentioned that connecting with peers and industry professionals could serve as a catalyst for business development, allowing them to share ideas, learn new approaches, and receive mentorship.

Finally, a need alumni mention is access to financial and material resources to support the implementation of their business ideas. Many said being unable to operationalise them due to a lack of funding, to bridge the gap between ideation and implementation.

4.4 PARTICIPANT JOURNEY MAP

By combining the data gathered through interviews and questionnaires with both participants and alumni, a participant journey map was created to visualise the experience individuals have with the ACHI programme, inspired on the methodology described by Bohlmann and McCreery (2016). It is divided into three phases: the pre-participation, participation, and post-participation phase. This map provides a structured overview of key touchpoints, actions, and challenges across the different phases of the participant journey (figure 6), helping to identify pain points and opportunities for improvement.

4.4.1 PRE-PARTICIPATION PHASE

The pre-participation phase consists of the initial stages of a participant journey with the ACHI programme, consisting of awareness and consideration.

Discovering

During the awareness stage, participants first learn about ACHI through a variety of sources, including personal networks, online platforms, partner organisations, and agricultural events. Word-of-mouth is particularly influential from family, friends and former participants. Others are introduced to the programme through flyer distributed on platforms such as WhatsApp, Facebook, and Twitter. Additionally, some individuals become aware of ACHI through related events and training sessions organised by HGT.

Pain points

- Limited promotion: although social media is used for promotion, the programme is dependent on partners and former participants to spread the promotion within their network.
- Network dependency: awareness relies on personal or partner networks, which may not reach all potential candidates.

Consideration

In the consideration stage, participants search for more detailed information about ACHI. This often involves online research, beginning with a Google search and followed by exploring social media platforms such as Facebook, Twitter, and YouTube. In addition, many turn to sources within their personal network, such as former participants or ACHI employees, to gain firsthand experiences in learning more about the programme.

Individuals show varying information needs at this stage. Some are looking for basic details like location, eligibility, and application deadlines, while others seek deeper insights into the curriculum, the types of support available during and after the programme, or specific outcomes. The lack of a centralised and structured source makes it difficult for participants to find complete and trustworthy information.

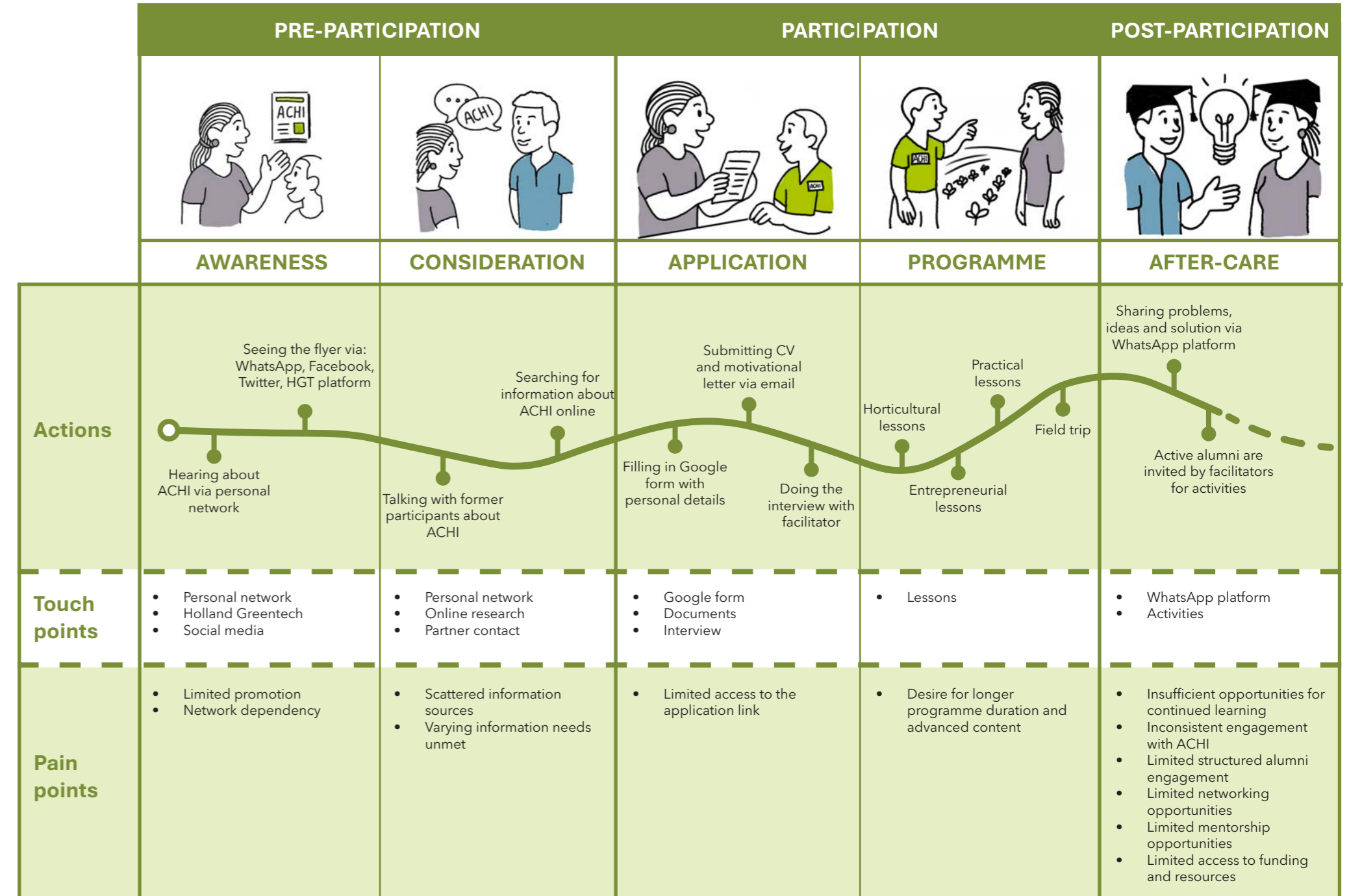


Figure 6: Overview of participant journey map

Pain points

- Scattered information sources: information about the ACHI programme is scattered across various channels from different parties.
- Varying information needs unmet: current communication does not account for the diversity in what participants are looking for, from practical application steps to deeper programme outcomes.

4.4.2 PARTICIPATION PHASE

The participation phase consists of the core stages of a participant journey with the ACHI programme, consisting of application procedure and programme.

Application process

In the application phase, participants who are interested in joining the ACHI programme have to follow multiple steps. First, they have to complete a Google Form in which they provide personal details and are asked to submit their CV and motivational letter via email. Second, applicants participate in an interview with a programme facilitator. Finally, they are invited to participate in the programme.

Pain points

- Limited access to the application link: The application form is not centrally shared.

Programme

The programme is the core of the ACHI programme, where participants engage to be equipped with the skills and knowledge needed for success in horticulture and entrepreneurship. This phase includes a mix of theoretical lessons, practical fieldwork, excursions and a group project. Beyond knowledge and practical skills, participants report a transformation in mindset. Additionally, the programme fosters the development of soft skills and emphasis on hands-on training bridging the gap between theory and real-world application.

Pain points

- Desire for longer programme duration and advanced content: additional time would allow participants for deeper engagement with topics such as pesticide management, use of tools and equipment, and business development. And advanced content to continue developing their knowledge is desired.

4.4.3 POST-PARTICIPATION PHASE

The post-participation phase consists of the final stages of a participant journey after completing the ACHI programme, consisting of experiences and after-care.

After-care

After completing the ACHI programme, participants become part of the alumni network, mainly connected through WhatsApp groups. These include both a general alumni group and smaller batch-specific groups.

While the general group is used to share programme updates and general communication, it is not consistently active. More frequent interactions happen within the smaller batch-specific groups, where alumni exchange advice, share experiences, and support each other.

However, this is still limited. Intensive interaction is more between individuals. There is currently no structured system for ongoing alumni engagement, resulting in a sense of disconnection from the programme and fellow participants. Opportunities for continued learning or knowledge exchange are limited, and there is no formal mentorship structure.

Furthermore, many alumni face difficulties accessing the financial resources and support needed to continue or scale the projects they developed during the programme.

Pain points

- Inconsistent engagement with ACHI: the general alumni WhatsApp group shows limited activity.
- Limited structured alumni engagement: there is no formal system or schedule for ongoing interaction or community building among alumni.
- Limited mentorship opportunities: alumni currently do not have access to a formal mentorship or guidance programme
- Insufficient opportunities for continued learning: there are few and limited organised activities to support alumni in ongoing professional development.

- Limited access to funding and resources: alumni face challenges securing financial and material support needed to sustain or grow their horticultural businesses.
- Limited networking opportunities: although the WhatsApp platform for alumni facilitates possibilities to connect with peers, the interaction is limited and the threshold is high to contact people from outside the project group.

4.5 CONCLUSION

To improve the engagement strategy of the ACHI programme, it is important to understand the journey that participants go through. Accordingly, the sub-research question is answered – *What challenges do the participants encounter across every stage of the educational programme?*

Based on the participant and alumni interviews, the participant journey map is created, divided into three phases: the pre-participation, participation and post-participation phase. During the pre-participation phase, the programme is discovered mainly through word-of-mouth and has less general promotion. Moreover, the information on the programme is scattered and participant have the need for varying types of content.

In the participation phase, access to the application form is only accessible via others and the participants express a wish for a longer duration of the programme and more advanced content.

During the post-participation phase, the alumni wish for continuous learning, networking opportunities, and mentorship to tackle challenges that they face. Furthermore, they wish for access to funding and resources to be able to start or expand their businesses.



5. CONCEPTUALISATION

This chapter translates the pain points identified in the participant journey map into actionable opportunities for improving the ACHI programme experience. Through co-creation and brainstorming sessions, ideas were generated to address challenges across the phases. The chapter concludes by presenting the resulting concept interventions, a website and an annual alumni event.



5.1 TRANSLATING PAIN POINTS INTO OPPORTUNITIES

Based on the pain points identified in the participant journey map, several opportunities emerged to enhance the participant experience with the ACHI programme. Following the methodology of Bohlmann and McCreery (2016), these pain points were reframed as opportunities to guide innovative design solutions.

These opportunities show the following three focus areas for improving the ACHI programme experience:

- Improving information sharing and accessibility
- Continuous learning
- Improving alumni engagement and support

PAIN POINTS	OPPORTUNITIES	FOCUS AREA
Limited promotion	How might we increase promotion among potential participants?	Improving information sharing and access
Network dependency	How might we make the programme accessible to those outside existing social or professional networks?	
Scattered information sources	How might we ensure that information about the programme is easy to find and access in one place?	
Varying information needs unmet	How might we address the diverse information needs of different types of potential participants?	
Limited access to the application link	How might we improve accessibility and visibility of the application process for all potential participants?	
Desire for longer programme duration and advanced content	How might we support participants who want to learn more?	Continuous learning
Insufficient opportunities for continued learning	How might we help alumni continue learning and growing after completing the programme?	
Inconsistent engagement with ACHI	How might we foster ongoing connection and interaction with alumni after the programme ends?	Improving alumni engagement and support
Limited networking opportunities	How might we enable alumni to connect and build relationships with each other and with professionals?	
Limited mentorship opportunities	How might we support alumni in receiving guidance and support from more experienced peers?	
Limited structured alumni engagement	How might we create a structure that supports continued alumni involvement and collaboration?	
Limited access to funding and resources	How might we support alumni in gaining access to resources needed to grow their initiatives?	

Table 2: Summary of pain points and opportunities

5.2 DESIGN CRITERIA

Building on these opportunity areas in combination with ACHI's positioning (Chapter 3), a set of design criteria was developed to guide the concept development and ensure alignment with participant needs and ACHI's goals. The design should:

Improve information sharing and accessibility

- The design should increase visibility of the programme among potential participants.
- Information about the programme must be centralised in a single, easy navigable platform.
- The application process must be intuitive and clearly accessible online.
- Communication materials must provide diverse information needs.

Facilitate continuous learning

- The design should provide access to extended or advanced content for participants who want to deepen their knowledge.
- Improving alumni engagement and support
- The design should foster a continued connection between alumni and ACHI.
- The design should create connection between alumni from different batches.
- Alumni must have opportunities to connect with peers and external professionals through the design.
- The design should enable mentorship opportunities by facilitating contact between experienced and new alumni.
- Alumni should be supported in accessing relevant resources through the ACHI network.

Represent ACHI's positioning

- The design should showcase ACHI's impact and identity through a visual style that reflects ACHI's personality: practical, empowering, inclusive, and forward-thinking.
- The design should be easy to understand for all users.

5.3 IDEATION

The concept development focused on addressing these opportunities through a co-creation and brainstorming session. This approach ensured that the resulting concepts respond to opportunities and design criteria.

5.3.1 INDIVIDUAL BRAINSTORMING

Individual brainstorming was conducted to explore ideas related to alumni engagement and information provision. The individual brainstorming regarding stimulating networking and accessible communication (figure 7) resulted in a set of ideas which can be grouped into the following thematic clusters:

- Community and networking
- Skill sharing and learning
- Digital platform

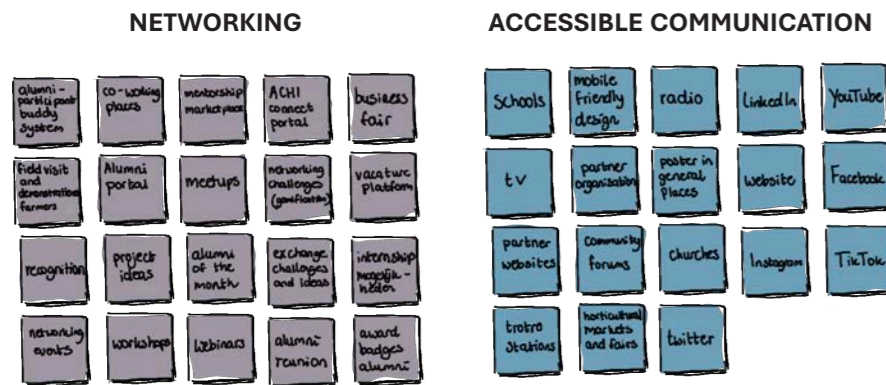


Figure 7: Individual brainstorming

5.3.2 CO-CREATION WORKSHOP

To explore ways of developing ideas for the opportunities mentioned in section 5.1, a co-creation session was conducted (Appendix B1) with 4 employees of ACHI, two of whom are also alumni. Their dual perspective made them valuable contributors to the discussion. The session focused on identifying opportunities to connect alumni more effectively to ACHI after graduation.

The co-creation took place at KAC and was facilitated by the researcher, who adapted the structure in real-time to fit participants' energy and preferences. The session included individual and group brainstorming rounds, rapid ideation, and a final voting activity to prioritise promising directions. The session generated a variety of ideas to improve alumni engagement, with the themes:

- Skill development
- Network events
- Visibility
- Alumni association

Suggestions for skill development included bi-monthly online webinars, hands-on workshops, and targeted training sessions that would help alumni stay updated with evolving practices. Network events included in company visits, networking dinners, farm markets, and larger business fairs that bring together alumni and companies. This is connecting to the visibility via ACHI, where alumni can show their businesses and sell their products, and to share alumni stories via ACHI's channels, having a hall of fame, etc. And finally, making people responsible for the alumni-related activities and ideas via an ACHI alumni committee, with representatives from all batches.



5.3.3 EXTERNAL BRAINSTORMING SESSION

To further explore the topics of information provision for participants and alumni engagement, a brainstorming session was conducted with two external participants who had no prior involvement in the ACHI project (Appendix B2). With reversed brainstorming, challenges are identified by imagining how to worsen the current situations of alumni engagement and information provision. After the participants developed solutions to these challenges, they first worked independently and then built on each other's ideas. Finally, participants generated more targeted ideas for improving alumni engagement and information provision for participants within the ACHI context.

The brainstorming session led to solution clusters focused on four main areas:

- Improving accessibility and comprehensibility of information
- Enhancing online communication
- Ensuring security and privacy
- Strengthening in-person communication

Overarching ideas that emerged included sharing expertise and experiences, fostering network opportunities, and building a strong sense of community among participants and alumni.



5.4 THE CONCEPT

Based on the identified challenges, opportunities, and ideation, two interventions were conceptualised for creating a coherent participant journey, suiting each phase: the ACHI website and the annual Horticulture Business Event.

5.4.1 THE ACHI WEBSITE

The website is designed to function as a central point for communication and visibility, both for the ACHI programme and alumni. It addresses the pre-participation phase by merging fragmented information into a single, accessible platform. Potential participants can easily access details about the programme, including its curriculum, application procedures, and value proposition ACHI offers. Additionally, the website serves as a repository for alumni success stories and a network overview. The website is further explained in Chapter 6.

5.4.2 THE ANNUAL HORTICULTURE BUSINESS EVENT

The Horticulture Business Event represents a physical, annual recurring event designed to engage participants in the post-participation phase with each other and with ACHI. This event serves multiple functions. It offers a venue for alumni networking and mentorship, provides workshops and seminars on relevant topics, and enables businesses to showcase their innovations within the horticultural value chain, creating opportunities for continued learning and collaboration.



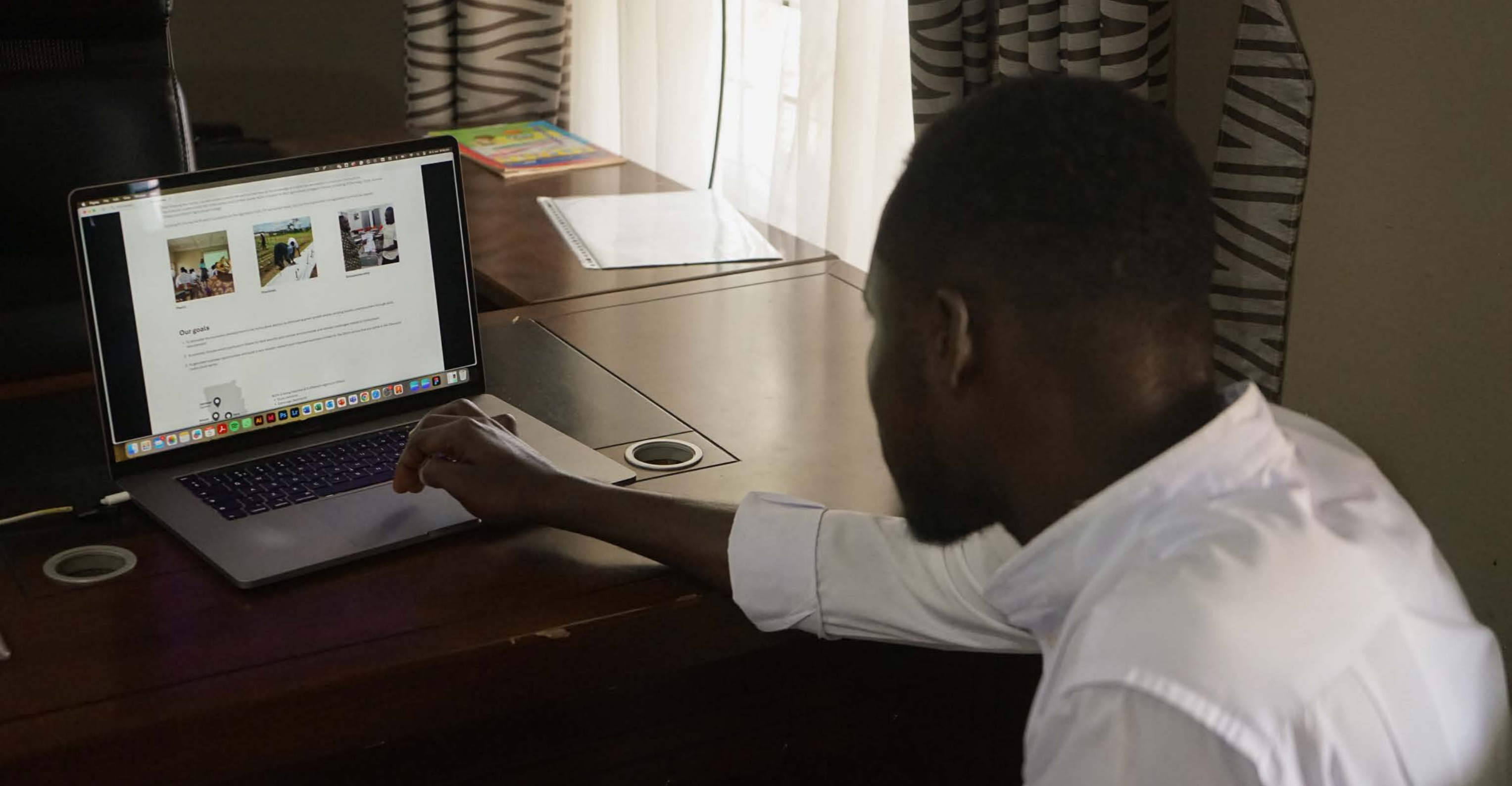
Figure 8: Website creation

By fostering face-to-face interactions, the event builds trust and community among alumni, strengthening their connection to the programme and inspiring them to share their experiences with others. This enhances the programme's visibility and potentially attractiveness to potential participants. The Horticulture Business Event is further explained in Chapter 7.

Together, the website and yearly Horticulture Business Event create a cohesive ecosystem supporting the entire participant journey, from the pre-participation phase to the post-participation phase. The website optimises access and communication in the pre-participation phase, while the annual Horticulture Business Event fosters ongoing community and collaboration in the post-participation phase.



Figure 9: Horticulture Business Event



6. PRE-PARTICIPATION PHASE: WEBSITE

This chapter describes the development of the ACHI website, from the first prototype to user tests with Ghanaian and Dutch participants. Insights from these tests guided design improvements in navigation, content, and visuals, leading towards the final design.

The website design process started with the creation of a promotional flyer for ACHI (Appendix C1), which served as a foundation for defining the visual identity and the core message of the programme that was used in the first website iteration. Subsequently, an initial user test was conducted in Ghana, and the outcomes were used for the design iterations in combination with client feedback.

A second user test took place in the Netherlands, after which further refinements were made, again incorporating the feedback from the client. The final version of the website was evaluated with an employer from Holland Greentech, one of ACHI's key partners, to ensure alignment with partner perspectives. An overview of the design process is presented in figure 10.

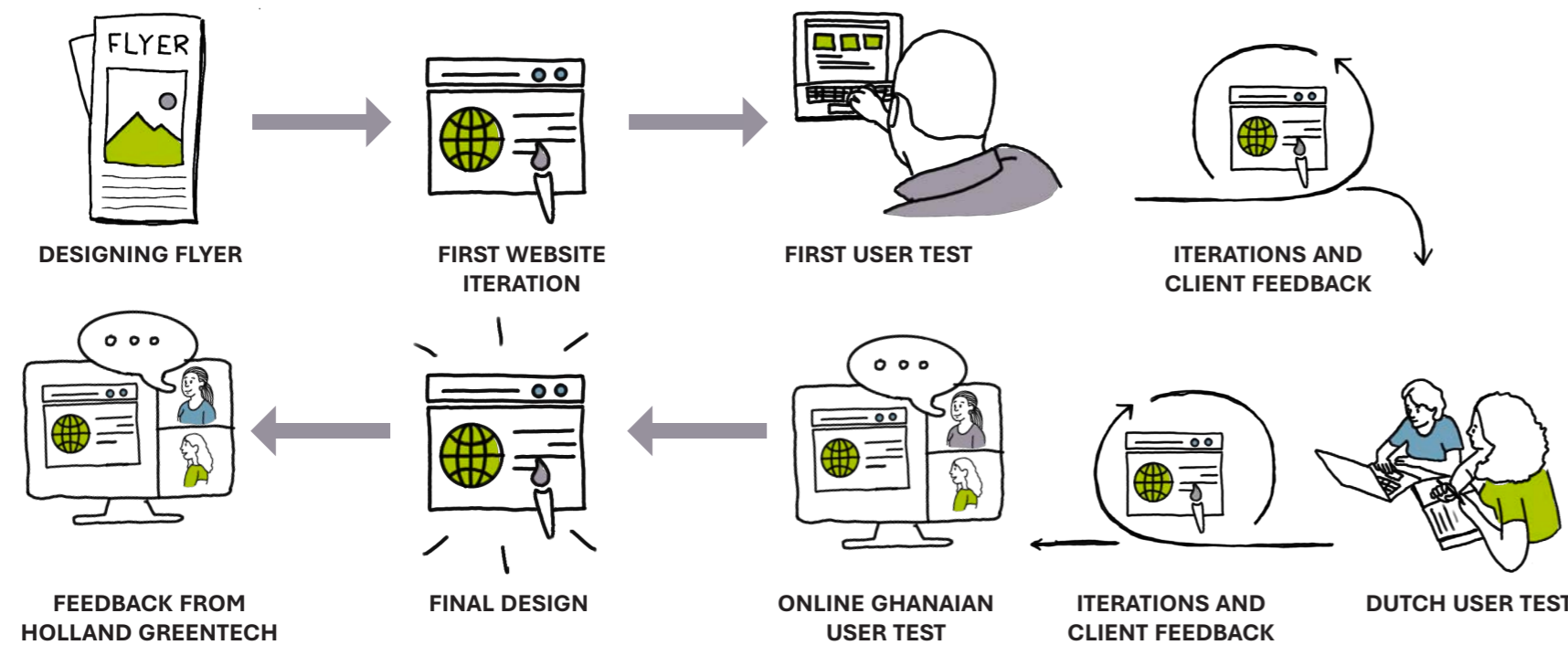


Figure 10: Overview of website design process

6.1 FIRST VERSION OF THE WEBSITE

This first website version was developed to test the layout, navigation, and clarity of information for prospective users (Appendix C2). This prototype explores whether users could easily find the information they were looking for, understand what ACHI offers, and get a sense of the programme's curriculum and outcome. The website was developed using Figma, enabling an interactive prototype that simulates real website behaviour. Users could click through pages, explore alumni profiles, and navigate between sections as they would on a functional website.

To ensure a user-friendly and informative first version, the following design decisions were made:

- Simple layout: each page followed a clean and vertical structure, using clear section headers and spacing to guide the eye through the content.
- Minimal menu bar: a top-level menu bar allowed quick access to the key sections (Home, About ACHI, Projects, and Alumni), keeping navigation straightforward and consistent across page.
- Information-first design: content was kept concise and structured with subheadings, bullet points, and images to visualise the content comprehensively.
- Project showcase: The project section highlighted past participant projects to inform and inspire new applicants, while setting a baseline of quality.
- Alumni database: The alumni section allowed users to browse profiles by batch, see current professions, and see their projects and contact details, supporting both connection and credibility.



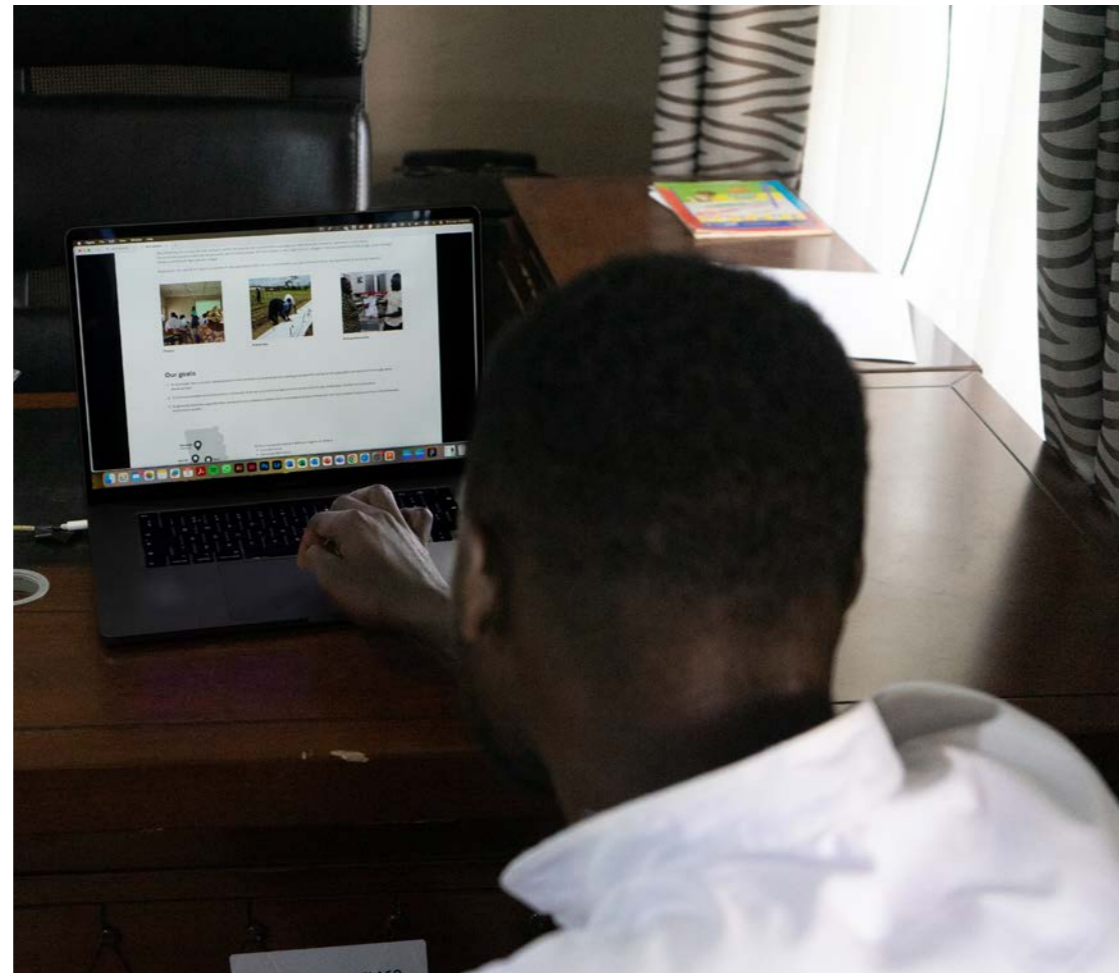
Figure 11: First version of the website

6.2 FIRST USER TEST

To validate the first iteration of the ACHI website by assessing usability, content clarity, and visual appeal through user feedback in Ghana. A mixed-method user test was conducted using observations and a questionnaire. The user test was done with 6 users and was a mix of current ACHI participants and alumni. During the user test, participants were asked to explore the prototype and complete a questionnaire that assessed three key areas: navigation, content, and visual layout. Observations were made during the test to capture how users interacted with the interface. The primary focus was on how well users could find and understand core information, how intuitive the layout felt, and how the design supported the engagement. The full analysis is presented in Appendix C3.

The results showed that the website's structure was generally perceived as clear and straightforward. However, some users encountered challenges with the navigation. One participant found the menu bar, placed on the top of the page, unfamiliar, expecting instead a side menu bar. There was also a desire for more intuitive features, such as a back button or a clickable logo. In terms of content, participants appreciated the inclusion of main topics such as programme's goals and entrepreneurial aspects, which were ranked as the most important. However, they mentioned that several areas were underdeveloped or entirely missing. These included the history of the programme, a clearer description of partner organisations and their role, and content related to the graduation process. Users also wanted more emphasis on lead farmers, and field trips.

Visual engagement emerged as one of the strongest aspects of the prototype. All participants found the design very appealing and well-aligned with the ACHI programme. The visual identity, including colours and layout, was praised for making the programme feel credible and welcoming. Pictures on the homepage helped users quickly understand what the programme is about. At the same time, there was a strong call for more visuals or a short video showcasing the programme.



6.3 DESIGN ITERATIONS

The first user test results showed that the core layout and visual style were well received by users, but also revealed critical areas for improvement, particularly regarding content completeness, navigation logic, and visual richness.

The goal of this iteration phase was to improve the site's usability, relevance, and credibility by addressing the user needs, while still maintaining simplicity and clarity that were appreciated in the first version.

Based on the insights from the user test and client feedback summarised in table 3, the issues were structured into three overarching themes: structure, content and visual engagement. These themes guided the design iterations.

In conclusion, the website includes the following pages (Appendix C4):

- Home: short summaries including visual content of all sections on the website
- About us: new section including the different partners behind ACHI
- ACHI process: new section including the educational process, outlining the application process, curriculum modules, graduation and alumni association
- Stories: new section including the success stories of alumni
- Alumni: the section all alumni profiles
- Contact us: including the contact details for business, educational or alumni collaborations.

THEME	ISSUE IDENTIFIED	DESIGN ITERATION
Structure	Navigation bar placement; some users expected it on the side	The menu bar stayed at the same spot, since a significant amount of users did understand this.
	Unclear clickable areas	Enhanced clickable areas with clear visual feedback (hover states)
	User preferred separate pages over long scrolling	Split content per topic
Content	Missing information on: history, partner contributions, curriculum details, graduation process, and lead farmer roles	Added network page, partner profiles with their roles, added educational page with curriculum overview including applying, graduation and alumni association
	About ACHI felt incomplete; lacked mission, successes, project outcomes.	Rewrote and expanded information on the website in general. Added alumni page including success stories
	Education section too vague - users wanted specific topics and explanation	Added breakdown of educational modules
	Project database needs too many updates per year	Section is removed
Visual engagement	Visuals were not sufficient	Added graduation, classroom, practical, and field trip photos
	Visuals are more effective than written text	Added visual summary of the text

Table 3: Summary of user insights and design iterations



6.4 USER TEST WITH DUTCH PEOPLE

After making improvements based on the first user test, client feedback and iterations, a user test was conducted to evaluate the website on navigation and usability with Dutch participants. The user test was conducted with 8 users of varying ages and English proficiency in an in-person user test where they navigated a clickable version of the site in Figma. They were asked to explore freely and then answer semi-structured interview questions (see Appendix C5). The full analysis is presented in Appendix C6.

The Dutch users generally found the site easy to use and well-organised. They identified its purpose as an educational horticultural programme, often highlighting its entrepreneurial aspects. The green visuals and icons on the homepage were effective attention-catchers, and the design was described as professional and inviting. The inclusion of alumni stories enhanced trustworthiness, as some participants suggested making the affiliations with external institutions like TU Delft more visible. Minor usability issues were identified, such as non-clickable images being mistaken for links and some challenges in finding the infographic.

6.5 FINAL DESIGN

The insights gathered from the Dutch user test, who are not linked to ACHI, and client feedback guided the design adjustments, summarised in table 4. Those issues and design iterations were grouped into the three main themes: structure, content and visual engagement.

6.5.1 STRUCTURE

The website design is singularly focused on the educational aspect of ACHI, while underrepresenting the broader network behind the programme. To address this, the website is restructured to create a more balanced representation of both ACHI's educational components and its network of partners and stakeholders. Additionally, some users had trouble locating the infographic that visualised the ACHI educational process. This was solved by adding a dedicated educational section and visually matching it to the rest of the website, making it easier to find and understand.

6.5.2 CONTENT

To improve the clarity of the content and reduce maintenance efforts, changes were made to the content of the website. The alumni database was removed, as it required frequent updates. Furthermore, visibility of ACHI's network is improved by changing the about us section to network, presenting the contributing partners and their roles within the programme.

Additionally, user expectations regarding clickable elements were improved. Previously non-clickable elements that appeared interactive were made clickable to improve usability.

6.5.3 VISUAL ENGAGEMENT

The ACHI process was seen as inconsistent with the rest of the website's design and had too small visual elements. This section was redesigned to visually align with the rest of the website and improve clarity in the Education section. Finally, some visuals used throughout the website were unclear. These icons were replaced by more explanatory visuals to support the text.

THEME	ISSUE IDENTIFIED	DESIGN ITERATION
Structure	Focus is only on the educational part of ACHI	Sections adapted to network and education
	Finding the infographic	Adding an education section
Content	Alumni database needs too many updates per year	The section is removed
	Partners lack visibility	Increase exposure of the main network
	Expected clickable elements	Making them clickable
Visual engagement	Design of the ACHI process is not fitting the rest of the website & too small	Section is adapted to the same visual appearance of the rest of the website
	Unclear icons	Icons are adapted

Table 4: Summary of user insights and design iterations

6.5.4 DESIGN CHOICES Visual design & branding

The website uses a consistent green colour palette symbolising growth and agriculture, paired with clean typography and layout principles. Visuals are used extensively to support textual content, featuring real alumni and activities to enhance authenticity. Moreover, the pictures that are carefully selected to show the reality and proof, since this is very important for Ghanaians, visual proof.

Navigation and content

The navigation and structure are intentionally simplified through a fixed top menu and scroll-based pages. All key information is accessible through three entry points: the homepage, the menu bar, and the footer, making the website intuitive. Pages are segmented, avoiding long scrolls where possible, and only the most relevant information for new users is on the website. The clickable options are limited so that the website stays easy.

The content is organised to communicate the ACHI programme's purpose, curriculum, and outcomes. Attention was given to storytelling, with alumni journeys to personalise the experience and showcase impact. Content was kept concise and action-oriented.

In conclusion, the website includes the following pages (Appendix C7):

- Homepage: short summaries including visual content of all sections on the website
- Network: new section including the different partners involved in ACHI
- Education: new section including the educational process, outlining the application process, curriculum modules, graduation and alumni association
- Alumni: a new section including success stories of alumni
- Contact page: including the contact details for business, educational or alumni collaborations.



Figure 12: Overview of final website pages

6.6 USER TEST WITH GHANAISANS

After creating the final design based on the received feedback, a user test was conducted with Ghanaian participants to assess the website's content relevance and overall impression. The user test was conducted with 8 users, consisting of a mix of alumni and current ACHI participants, engaged in a remote user test via Microsoft Teams. They reviewed a non-interactive PDF version of the website and participated in a semi-structured interview (Appendix C8). The full analysis is presented in Appendix C9.

The users responded positively to the first impression, describing the homepage as visually attractive and informative. The overall perception was that the website felt clean, modern, and motivating. They praised the structure and clarity, and especially valued the alumni stories, which they found inspiring and relatable. The educational content was seen as holistic, practical, and clearly explained, making the programme feel inclusive and impactful. Moreover, users felt the website was trustworthy due to the presence of institutional logos, recognisable pictures, and detailed contact information. Suggested improvements included more relevant pictures, improved colour usage, the addition of video content, and showcasing tutors. Although the alumni database was well-received for its networking potential, it was removed halfway through testing due to practical constraints.



Figure 13: User test with Ghanaians

6.7 IMPLEMENTATION

The implementation of the ACHI website is guided by the RASCI method (RASCHI methode, n.d.), which helps to clarify roles and responsibilities across different phases of the project. This helps in the transition from design to a functional and sustainable website, while supporting ownership and long-term usability.

6.7.1 RASCI METHOD

The following tasks are grouped under key implementation areas and defined using the RASCI method (table 5): responsible, accountable, supportive, consulted, and informed. These tasks are divided into:

- Technical development: the technical implementation will be led by a staff member from KAC with experience in website development. It needs a low-code platform to ensure simple maintenance that enables quick development and simple maintenance.
- Content creation and improvement: Content creation will be locally managed by an ACHI staff member.
- Content upload and maintenance: Even though the website has a static structure, occasional updates might be needed for adding alumni stories and updating contact information.
- Training and knowledge transfer: The designated staff member will receive training to be able to update the website.

6.7.2 FEASIBILITY RISKS

Despite the local implementation strategy, several risks should be taken into account:

- Staff turnover: If trained staff leave, delays in updates may occur. To mitigate this, tasks should be reassigned quickly, and basic documentation for uploading and editing should be provided.
- Content neglect: Due to annual checks, this might be forgotten and content may become outdated.
- These risks are considered manageable within the ACHI context and are mitigated through clear task division, ownership, and simple training.

	TASK	RESPONSIBLE	ACCOUNTABLE	SUPPORTIVE	CONSULTED	INFORMED
Technical development	Translate Figma prototype into functional page	KAC website developer	ACHI project leader	-	Designer	Core ACHI team
	Ensure responsive design for mobile/desktop	KAC website developer	ACHI project leader	-	Designer	Core ACHI team
	Optimise loading speed with compressed content	KAC website developer	ACHI project leader	-	-	Core ACHI team
	Hosting and domain setup	KAC website developer	ACHI project leader	-	-	Core ACHI team
Content creation and improvement	Create new content	ACHI content creator	ACHI project leader	-	Partners, alumni, teachers	Core ACHI team
	Write and select alumni stories	Alumni Association	Alumni Association committee	Alumni (story input)		Core ACHI team
	Add visual content	ACHI content creator	ACHI project leader	Teachers	Alumni Association	Core ACHI team
	Link social media and external sources	KAC website developer	ACHI project leader	Teachers	-	Core ACHI team and partners
Content upload and maintenance	Upload new stories and contact updates	Designated ACHI staff	ACHI project leader	Partners	-	Core ACHI team
	Annual review for outdated information	Core ACHI team	ACHI project leader	KAC developer	Content creator Alumni Association, teachers	ACHI partners
Training and knowledge transfer	Provide training in content editing and uploading	KAC website developer	ACHI project leader	Designated ACHI staff	-	Core ACHI team

Table 5: Overview of roles and responsibilities according to the RASCI method

6.8 CONCLUSION

While the overarching engagement strategy encompasses the entire participant journey, the website predominantly targets the pre-participation phase. Accordingly, the sub-research question – *How can ACHI address these challenges to improve the participant experience while fostering brand development?* – is solely answered from the perspective of the pre-participation phase in this section. The post-participation phase will be addressed in section 7.5.

Based on the identified challenges, formulated as pain points, and the corresponding opportunities (section 5.1), ACHI can enhance the pre-participation experience by improving both the accessibility and relevance of online information. To improve accessibility, a centralised online platform has been developed where all key information is grouped. Given the diverse informational needs of prospective participants, e.g. details about the curriculum, application procedures, or experiences of past participants, this information is coherently presented on the website.

In this regard, the website addresses the challenges of scattered information and accommodates the need for varying types of content. However, the issues of limited programme promotion and strong reliance on personal networks are only partially solved. While the website lays the foundation for broader visibility by offering public digital presence, it does not fully overcome the current dependence on word-of-mouth promotion and network-based communication.

Nevertheless, the ACHI website offers a clear and consistent overview of the programme, its values, and its structure. In doing so, it enhances the experience for potential participants by reducing uncertainty and fostering trust before enrolment. By spotlighting alumni stories, the website contributes to the issue of limited engagement beyond the training period offering a searchable alumni directory and encouraging continued involvement. In this way, it strengthens post-programme connection and nurtures a sense of belonging to a wider network. Furthermore, the website acts as a public expression of the ACHI brand. Through its visual design and the tone of voice, it builds brand recognition and conveys ACHI's identity as an empowering, practical, and forward-thinking programme.

7. POST-PARTICIPATION PHASE: ROADMAP

This chapter presents a strategic roadmap that bridges the current needs of ACHI's alumni with the programme's long-term vision, as defined in section 2. The roadmap outlines three phases, activation, expansion, and leadership, that progressively build community trust, expand the ecosystem, and position ACHI for systemic impact. This approach shows that participants' needs and future strategic goals are addressed cohesively.



As already mentioned in section 5.4, the Horticulture Business Event is designed to activate alumni engagement with the ACHI programme, create network opportunities among alumni, and facilitate continuous learning. Combining the alumni needs with the positioning of ACHI, the future vision is designed. To structure the path towards this vision, the Three Horizons model (Simons & Hultink, 2017) was used to distinguish between short-term improvements, emerging opportunities, and long-term transformation. This model forms the foundation for a strategic roadmap, outlining concrete steps to transition from the alumni event to the envisioned future. The roadmap was validated with the client and the executing employer and refined accordingly.

The development of the Horticulture Business Event, and thus the design of the strategic roadmap was designed by combining the event with the positioning of ACHI within the horticulture sector. This combination provided a foundation for directions for the ACHI programme's future growth and engagement. The initial version of the roadmap was reviewed and refined based on feedback from the client and one employer of the Alumni Association committee. Based on their input, the final version of the roadmap was developed. An overview of the design process is presented in figure 14.

7.1 HORIZON 1 - ACTIVATE

The first horizon focuses on short-term improvements, activating ACHI's alumni network by fostering trust, visibility, and knowledge exchange. Based on earlier insights and opportunities, this phase addresses the need to create a stronger connection between ACHI and its alumni.

To support them, the Horticulture Business Event is introduced as a yearly event where alumni can:

- Showcase their businesses or themselves to gain visibility
- Network with peers, build relationships, and exchange knowledge
- Attend workshops and seminars hosted by relevant experts, such as the Food and Drug Authority or financial consultants, to help tackle their start-up challenges.

This initiative is rooted in an informal, flexible and volunteer-driven approach to encourage low-barrier participation. It aims to cultivate a sense of belonging, mutual support, and shared identity within the alumni community. The emphasis is on trust-building, experimentation, and rapid learning, laying the foundation for a stronger alumni culture. An overview of the horizon is presented in figure 17.

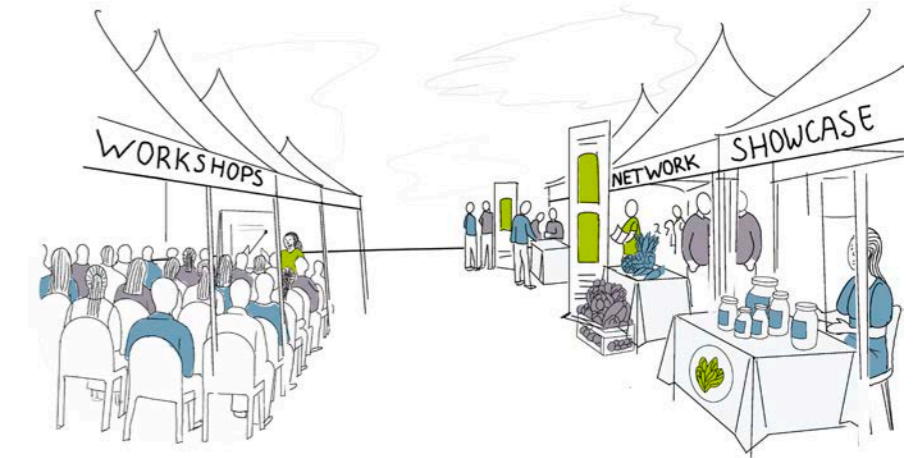


Figure 15: Horizon 1 - activate

7.1.1 IMPLEMENTATION

To implement this first horizon (figure 18), the focus is on simple, small-scale structures that can be scaled up over time in the following horizons. The approach for this horizon is informality, flexibility, and accessible participation, allowing space for experimentation and alumni-driven ownership.

The organisational structure is primarily volunteer-based, with the ACHI Alumni Association being responsible for organising the event. The association is supported by the committee of the ACHI Alumni Association, consisting of coordinators from KAC.

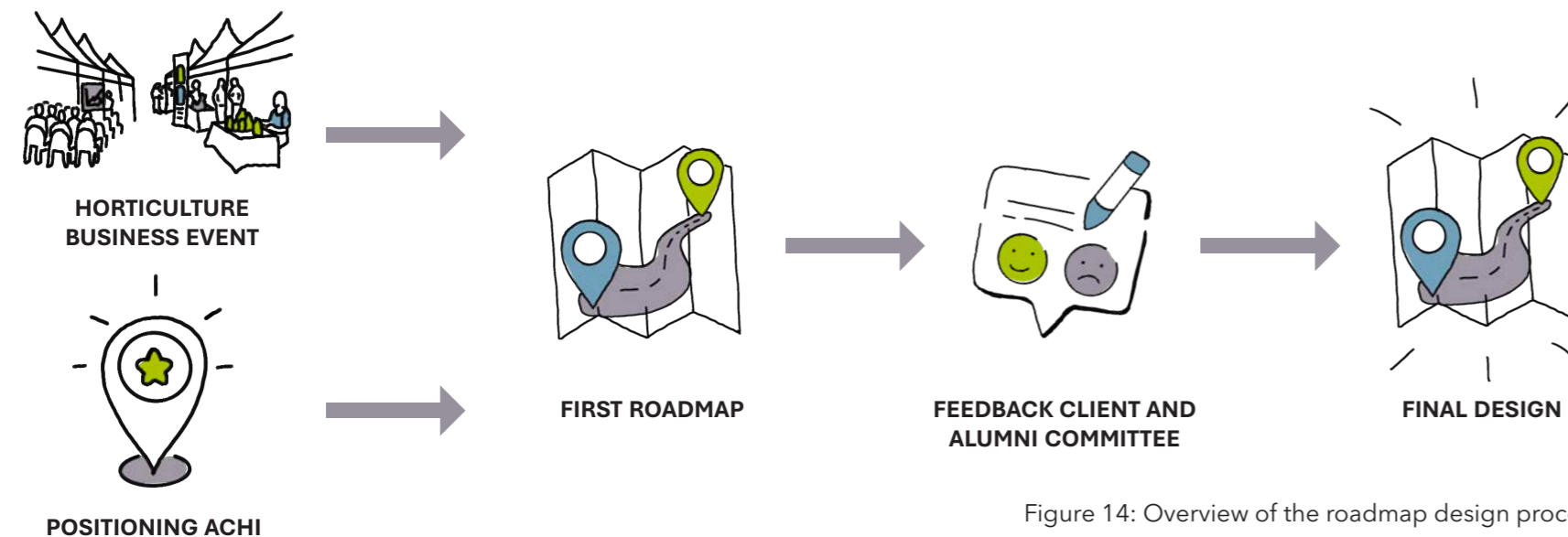


Figure 14: Overview of the roadmap design process

Operationally, the implementation consists of event planning, content design, event execution and the feedback loop. First, the event is co-created and planned by the Alumni Association. The event's content includes a diverse mix of activities, featuring showcases of alumni businesses, networking opportunities, and expert-led workshops on relevant topics such as access to finance and food safety. After each event, a feedback loop is established to collect input from attendees, enabling continuous improvement of the event's format and relevance.

The cost structure follows a low-cost model to ensure accessibility and sustainability. Existing facilities at KAC are leveraged, and the event relies on volunteer staffing and in-kind contributions from partners, such as guest speakers or materials. Typical expenses include logistics such as tents, chairs, and banners, as well as promotional materials like flyers, and minor costs for refreshments or volunteer reimbursements. Funding is expected to be provided primarily by ACHI and/or its partners.

Promotion of the event uses informal, trusted, and peer-based communication channels. Currently, an employee of KAC is calling alumni individually to collect updated contact information for creating an alumni database. This will be used in reaching out to the alumni. Communication occurs through the WhatsApp groups shared by alumni and trainers with announcements, and word-of-mouth within the alumni community by first emailing, messaging, and finally calling the alumni individually when there has been no response to prior approaches.

Horizon 1 lays the foundation for long-term alumni engagement by focusing on connection, trust, and accessible participation. The Horticulture Business Event becomes the catalyst for cultivating the alumni community, informal at first, but growing in structure and impact over time.

7.2 FUTURE VISION

While the first horizon is laying the foundation for an engaged and connected alumni network, it also serves as a starting point for long-term strategic development. The expressed needs of alumni identified in chapter 4, combined with ACHI's mission to promote youth employment, innovation and climate-smart practices and being positioned as a practical, empowering and inclusive catalyst researched in chapter 3 indicate a broader future ambition. This leads to a vision in which ACHI will become a recognised and influential ecosystem within Ghana's horticulture sector.

Thus, ACHI's future vision is to be a thriving ecosystem for entrepreneurial farming in Ghana. This vision is grounded not only in alumni aspirations but also in ACHI's potential to address structural gaps in the horticulture sector through a combination of practical training, network-building, and innovation. By pursuing this vision, ACHI aims to strengthen its systemic impact, empowering alumni to become agripreneurs, bridging education with market opportunities, and fostering a resilient, inclusive, and future-proof horticultural landscape in Ghana.



Figure 16: Being a thriving ecosystem for entrepreneurial farming in Ghana

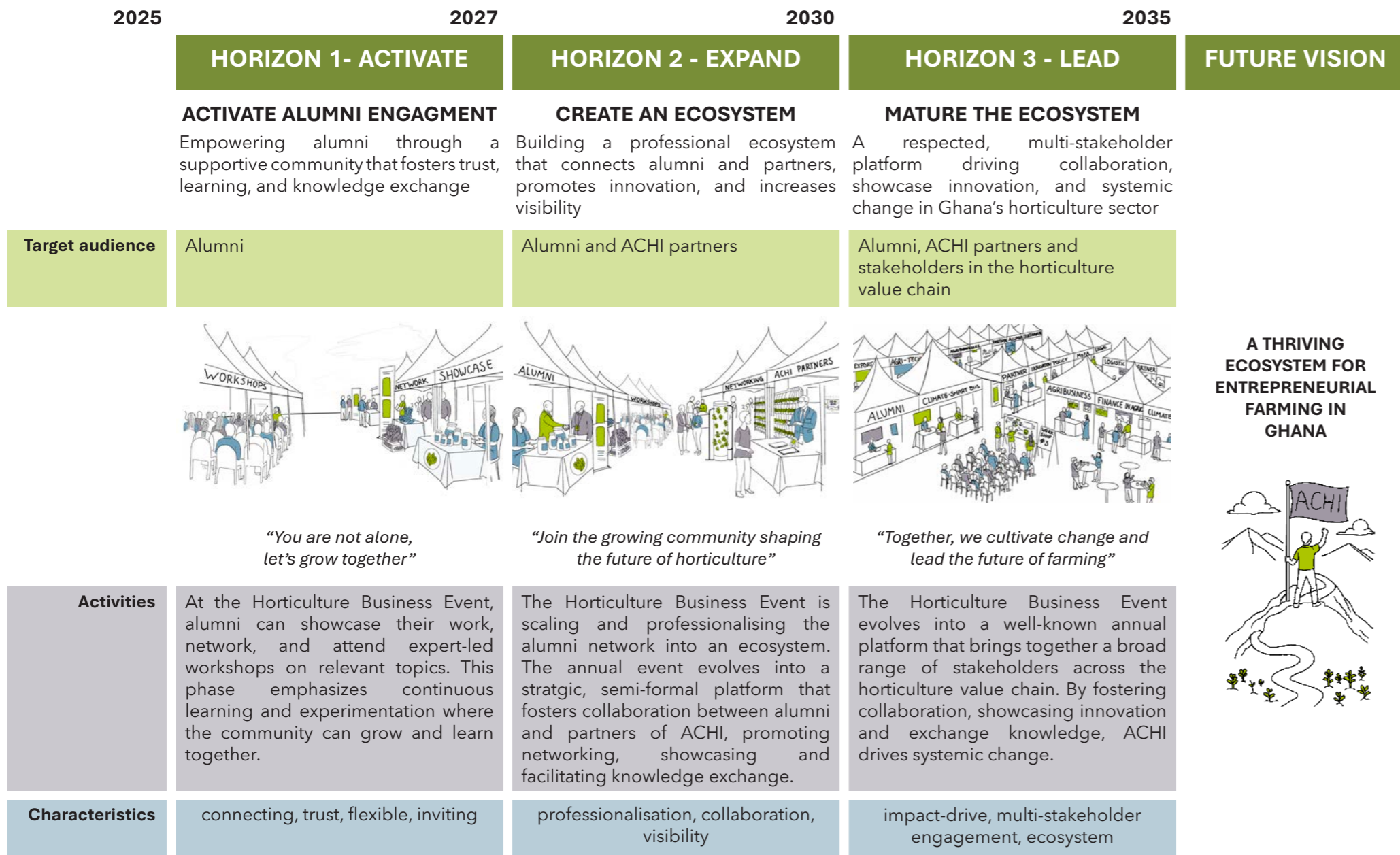


Figure 17: Roadmap

A THRIVING ECOSYSTEM FOR ENTREPRENEURIAL FARMING IN GHANA

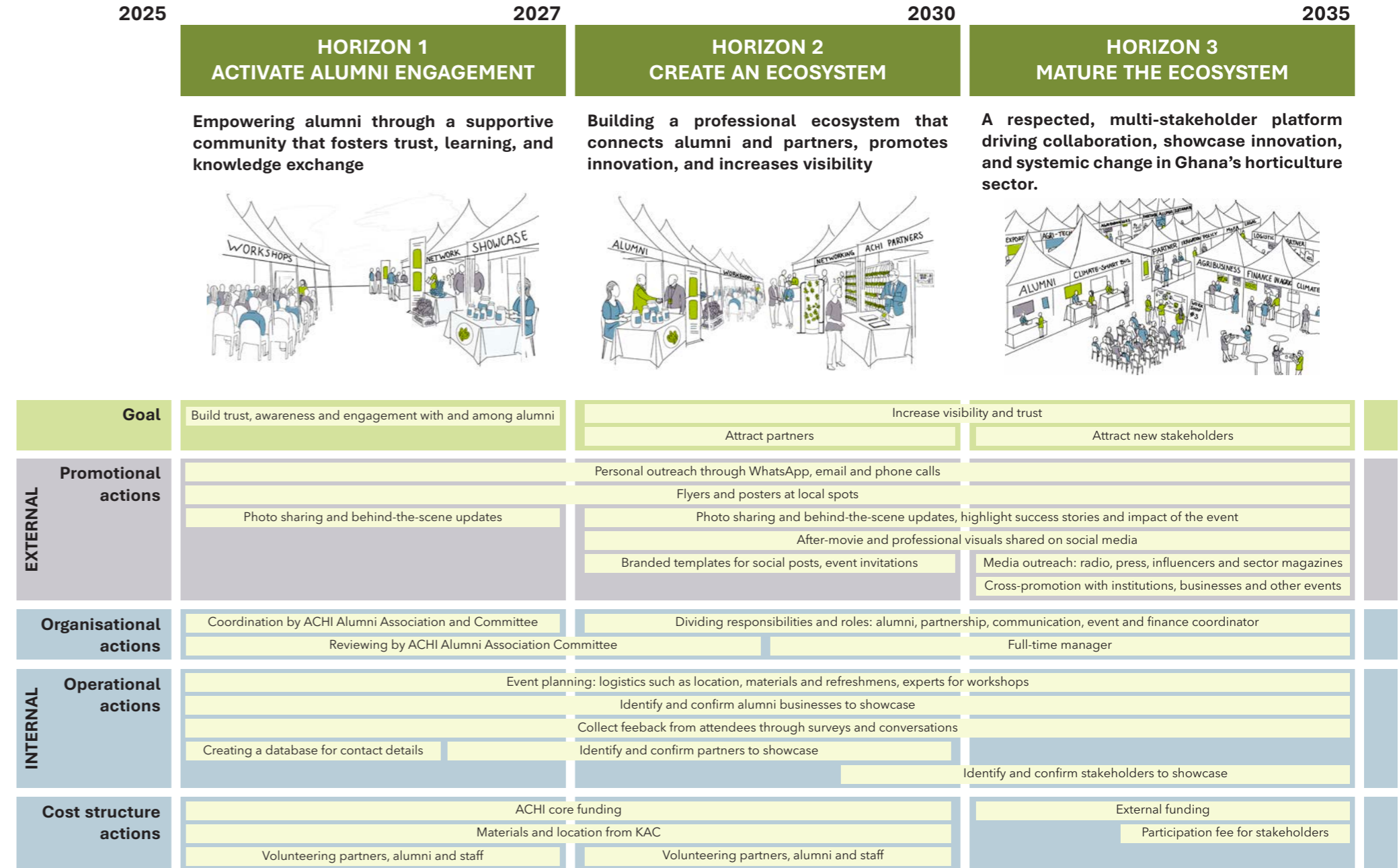


Figure 18: Tactical Roadmap

7.3 HORIZON 2 - EXPAND

Achieving this envisioned future requires scaling and structural development beyond the informal networks of Horizon 1. In Horizon 2, the alumni engagement initiative scales up into a broader ecosystem that involves both alumni and ACHI's external partners. The annual Horticulture Business Event becomes a strategic platform not just for alumni networking and learning, but also for meaningful collaboration between alumni and partners, and between partners themselves.

As the alumni network matures, the goal shifts towards increased visibility, professionalisation, and structured coordination. By strengthening partnerships and increasing the programme's visibility, Horizon 2 helps position ACHI as a serious innovative player in Ghana's horticulture space. An overview of the horizon is presented in figure 17.

7.3.1 IMPLEMENTATION

To implement Horizon 2 (figure 18), the focus is on professionalising and scaling-up the ecosystem as a foundation that will lead to a leading ecosystem. The organisational structure evolves from a fully volunteer-driven structure into a hybrid system. Specific roles are divided, consisting of an alumni coordinator, partnership coordinator, communication coordinator, event coordinator, and finance coordinator. This role differentiation brings clarity, creates responsibility, and ensures that the operational functions are managed



Figure 19: Horizon 2 - expand effectively.

Operationally, the Horticulture Business Event becomes a more structured, annual event planned collaboratively with ACHI's partners. Partners are increasingly involved in co-creating content, including workshops and presentations that align with both alumni interest and broader horticulture sector priorities.

The cost structure retains the low-cost, continuing to make use of existing facilities, volunteer contributions support from partners. Nevertheless, the typical expenses increase as the scale increases. These include logistics such as seating, tents, and brand materials, promotional costs for flyers and videos, and reimbursements for refreshments. Funding becomes more diversified, with

financial contributions sought from ACHI, ACHI's partners, and potential new funding partners.

Promotion becomes more strategic and professional in Horizon 2. Visual storytelling plays a central role, using media such as videos after-movies from previous Horticulture Business Events to build anticipation and convey value. Social media platforms are used more actively to highlight alumni success stories and document the journey of event planning. Outreach to alumni stays the same as for Horizon 1, but outreach to partners becomes more relationship-driven, relying on direct communication and personal connections. Messaging during this phase emphasises themes of ecosystem-building, credibility, and shared opportunity, projecting a tone that is both professional and human.

Horizon 2 builds on the foundation by scaling the Horticulture Business Event into a semi-formal ecosystem that connects alumni with ACHI's partners. Through a more structured and visible event, it fosters professional growth, collaborative innovation, and stakeholder engagement. It transitions towards a credible and growth-oriented network that is positioning the ACHI programme towards a leading ecosystem within Ghana's horticulture sector.

7.4 HORIZON 3 - LEAD

Building upon the structures and visibility established in Horizon 2, ACHI evolves into a nationally recognised ecosystem for inclusive and entrepreneurial horticulture in Horizon 3. The alumni network is now a mature, professionalised structure that operates at a high level of coordination and visibility. It extends beyond internal community building to influence system-level change in the horticulture sector of Ghana.

This phase envisions ACHI as a thought leader, promoting modern, sustainable, and inclusive farming practices through strategic collaborations with policymakers, government bodies, universities, and private sector actors. The third horizon enhances ACHI's reputation and ensures long-term impact by embedding it into the wider horticultural and educational infrastructure of Ghana. An overview of the horizon is presented in figure 17.

7.4.1 IMPLEMENTATION

To implement Horizon 3 (figure 18), the focus is on maturing the ecosystem by attracting all stakeholders within the horticulture value chain and positioning ACHI as a leader in Ghana's horticulture sector. The organisational structure consists of a core ACHI team with clearly defined roles as in Horizon 2, with a new focus on attracting external stakeholders within the horticultural value chain.

Operationally, Horizon 3 emphasises active policy engagement through participation in horticultural and youth entrepreneurship policy discussions during the event. Monitoring and evaluation systems are implemented to guide continuous improvements and demonstrate impact effectively.

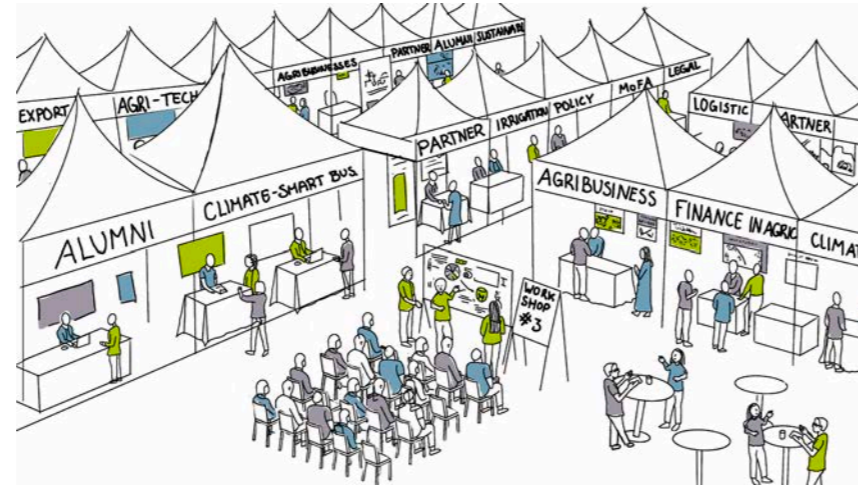


Figure 20: Horizon 3 - lead

Regarding cost structure, typical expenses include personnel, media production, and event-related costs. Funding is sourced from diverse channels including sponsorships from agribusiness and technology companies, public-private partnerships, and funding.

Promotion efforts utilise a broad range of channels such as national media, including radio, television, and press coverage, as well as social media campaigns highlighting alumni success stories and impact metrics. Influencers and public figures from the agriculture and entrepreneurship sectors contribute to enhancing outreach. Additionally, high-quality publications, collaborative projects, and a presence at external events and policy forums strengthen ACHI's visibility. Messaging in this phase focuses on ACHI's impact, credibility, innovation, system-level change, and its role as a national leader driving horticultural transformation in Ghana.

7.5 CONCLUSION

While the overarching engagement strategy encompasses the entire participant journey, the Horticulture Business Event and future vision predominantly target the post-participation phase. Accordingly, the sub-research question – *How can ACHI address these challenges to improve the participant experience while fostering brand development?* – is solely answered from the perspective of the post-participation phase in this section. The pre-participation phase will be addressed in section 6.8.

Based on the identified challenges, formulated as pain points, and the corresponding opportunities (section 5.1), ACHI can enhance the post-participation experience by improving the continuous learning, alumni engagement and support. To improve those elements, the Horticulture Business Event is developed to directly address the inconsistent alumni engagement with the programme and with peers and the limited opportunities for networking. By creating moments for alumni to reconnect, share experiences and gain visibility, the event fosters a community feeling.

However, the post-programme challenges of access to continuous learning, mentorship and access to funding and resources are only partially addressed. While there are opportunities to follow workshops from Horizon 1 onwards, and connect with funding and resource businesses on the event from Horizon 2 onwards, this does not have the main focus. However, it creates a starting point.

Finally, the Horticulture Business Event not only addresses the challenges faced by the alumni, but also strengthens the ACHI brand throughout the phases. It is publicly showcasing ACHI's commitment within the horticulture sector. By bringing together alumni, industry stakeholders, and institutions, the event positions ACHI as a central facilitator within Ghana's horticultural sector. The event reinforces ACHI's identity as an empowering and inclusive initiative that extends support beyond the educational programme, building trust, credibility, and helps working towards becoming a thriving ecosystem for commercial farming in Ghana.



8. DISCUSSION

This chapter summarises all the insights about ACHI's role in Ghana's horticultural sector, participant challenges, and ways to improve engagement and brand growth. It outlines recommendations for future research and steps to support ACHI's long-term vision.

8.1 SUMMARY OF KEY FINDINGS

The aim of this thesis was to investigate how ACHI can engage participants at each stage of its educational programme to strengthen brand awareness and promote alumni engagement. The study revealed that while ACHI's curriculum is impactful, the pre- and post-participation phases lack structured communication, visibility and support for alumni. Interviews with participants and alumni and surveys revealed three core needs:

- Better access to information prior to the programme
- Continuous learning opportunities
- Structured alumni engagement after graduation

These findings were summarised in the participant journey map for participants and translated into two design outcomes:

- A centralised website to streamline communication prior to the programme
- A roadmap for alumni engagement divided into three horizons, leading to a collaborative ecosystem of stakeholders.

8.2 CONTRIBUTION TO CONTEXT

This project contributes new insights to ACHI's context by reframing the participant journey as a continuous engagement experience, rather than a one-time training event. It highlights that the real value of the programme extends beyond classroom-based learning: lasting impact depends on how ACHI attracts new participants, supports graduates, and activates partnerships. The design outcomes offer a practical, scalable way to extend ACHI's impact through communication design, and community-building, which are areas that have received less attention in the current educational programme.

8.3 LIMITATIONS

Although this thesis provides actionable outcomes in the form of a redesigned website and a strategic roadmap for alumni engagement, several limitations should be acknowledged in relation to scope, methodology, and implementation readiness.

8.3.1 FOCUS ON THE EDUCATIONAL PERSPECTIVE

This research primarily focused on the educational experience of ACHI participants and alumni, leaving limited room to explore ACHI's broader strategic and business positioning. As a result, the perspectives of external stakeholders—such as funders, employers, implementing partners, and government institutions—were not sufficiently included in the analysis. Although input was gathered from two representatives of Holland Greentech, this sample does not reflect the full diversity of ACHI's stakeholder network.

8.3.2 DESK TOP DESIGN

The website was designed and tested for laptops only. In the Ghanaian context, mobile phones are commonly used for internet access. Testing on smartphones and under low-bandwidth conditions is important to ensure full accessibility and inclusivity for all potential users.

8.3.3 NO PILOT TESTS

The Horticulture Business Event, together with the roadmap is a strategic proposal that has not yet been implemented or tested in a real-world setting. While it was validated with the client and a stakeholder, its impact on engagement and community-building remains hypothetical.

8.4 FUTURE WORK

While the developed outcomes of the website and the roadmap offer actionable starting points to improve participant engagement and brand development, further research can elaborate on this as several challenges identified in the participant journey map remain only partially addressed.

8.4.1 PRE-PARTICIPATION PHASE

Website improvements

To ensure the website reaches its full potential in supporting both recruitment and brand development, several improvements should be researched.

- Test the website with strategic and business partners: Examine whether the platform supports ACHI's positioning not only for participants, but also for partners.
- Test on mobile usability: Test whether content remains clear, accessible, and credible on smartphones.
- Quantitatively evaluate website performance: Such as content engagement, and device-specific behavior.

Expanding outreach and accessibility beyond existing networks

- Limited visibility outside existing networks: The integration of offline communication strategies (e.g. community radio, local farmer events, TV) should be explored in combination with the use of digital channels to improve reach.

8.4.2 POST-PARTICIPATION PHASE

The strategic alumni roadmap provides a phased, long-term vision to strengthen post-programme engagement. While validated through workshops and with client stakeholders, the roadmap requires pilot testing and practical evaluation.

Strengthening alumni support and resource access:

- Limited mentorship: Even though the alumni will meet people for mentorship on the event, it is not the main focus. Therefore, ACHI can come up with a mentorship programme that actively connects alumni with experts on related topics.
- Limited access to funding and resources: Even though the alumni can meet people that are focused on facilitating funding and resources on the event, it is not the main focus. Therefore, ACHI can actively promote partners to the alumni that have these focuses.

Additionally, the educational perspective of ACHI had the main focus, which leaves room for future research for the business perspective of ACHI on attracting new partners and keep the engagement.



9. CONCLUSION



The aim of this thesis was to explore how ACHI could increase participant engagement throughout the programme's stages, with a particular focus on improving programme visibility and promoting long-term alumni engagement. An analysis of the Ghanaian context revealed barriers to vocational training and employment, underscoring the importance of ACHI's mission. A strategic analysis revealed gaps in communication and alumni engagement, positioning ACHI as a strong educational initiative with potential in outreach and post-programme support. Participant and alumni surveys revealed key pain points regarding information accessibility, continuous learning opportunities, and alumni engagement and support. These insights formed the basis for developing design options aimed at improving access to information, supporting post-programme learning and strengthening alumni engagement. As a result, a centralised website was designed and tested to make information about the programme more accessible and consistent, while strengthening ACHI's brand identity. At the same time, a strategic roadmap on the Horticulture Business Event was developed to enhance post-programme interaction in three horizons: activate alumni, create an ecosystem, mature the ecosystem. While the thesis presents a user-centred strategy for enhancing ACHI's participant journey, future work should focus on implementing the proposed solutions, engaging partners more deeply, and evaluating their long-term impact.



AI STATEMENT

The author declares that generative artificial intelligence tools were used in writing of this thesis for providing feedback and checking grammar and spelling, with ChatGPT (openAI). The author is taking full responsibility for the outcome.

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