

WORKSHOP COMPLETION REPORT

ACE Concept Sustainability through Market Access and Industry Collaboration

**for FIRST AFRICA HIGHER EDUCATION CENTRES OF
EXCELLENCE (ACE) IMPACT PROJECT
of the
GHANA TERTIARY EDUCATION COMMISSION (GTEC)**



**Trust Training Ltd
13th October 2023**

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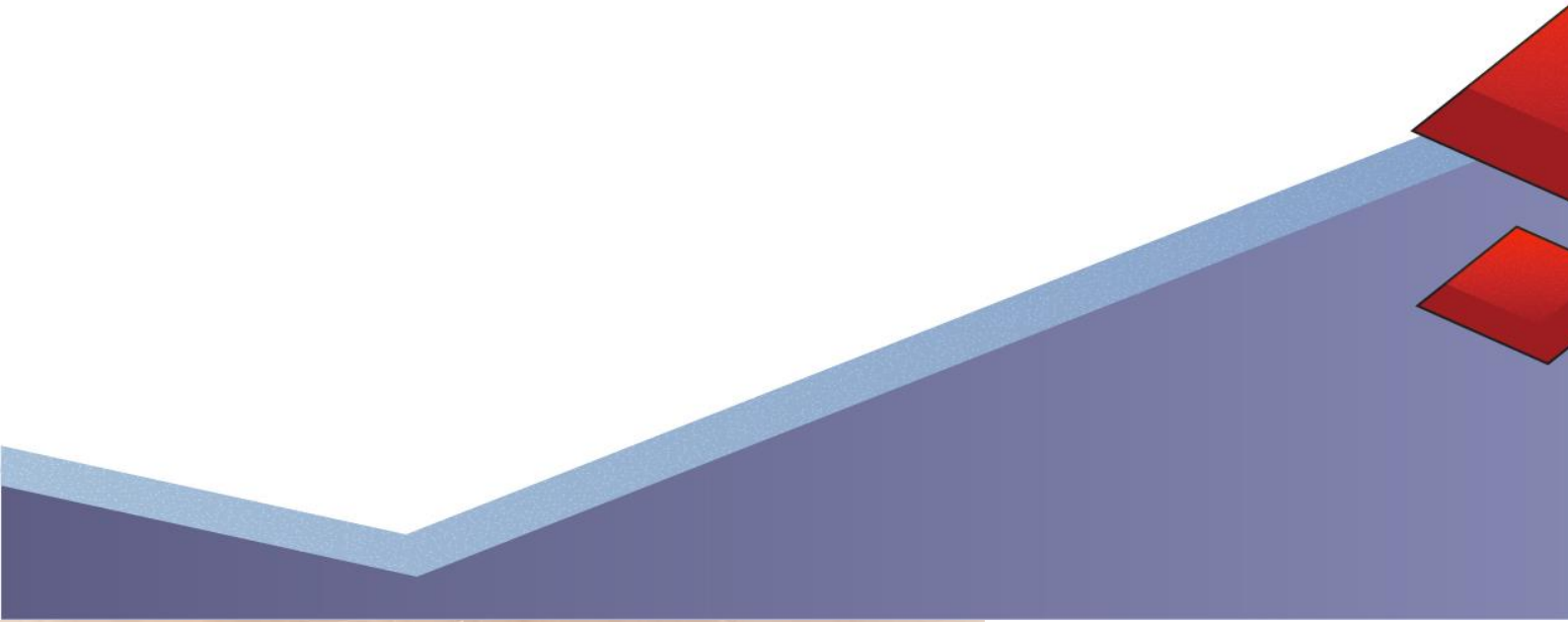
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Abbreviations and Acronyms

AfDB	African Development Bank
AAU	Association of African Universities
ABU	Agribusiness Unit
ACE	First Africa Higher Education Centers of Excellence
AFCFTA	Africa Continental Free Trade Area
ANSI	American National Standards Institute
CPD	Continuous Professional Development Accreditation
CSO	Civil Society Organisations
DUM	Decentralisation and Urban Management
ESS	Environmental and Social Safeguards
FMG	Financial Management and Governance
GCF	Green Climate Fund
GDP	Gross domestic product
GEF	Global Environmental Facility
GTEC	Ghana Tertiary Education Commission
IEC	International Electrotechnical Commission
IPMP	Institute of Project Management Professionals, Ghana
ISO	International Organisation for Standardisation
MEL	Monitoring, Evaluation & Learning
MoE	Ministry of Energy
MoFA	Ministry of Food and Agriculture
PCM	Procurement & Contracts Management
PM	Project Management
PME	Personal & Management Effectiveness
PMI	Project Management Institute
RCESS	Regional Center for Energy and Environmental Sustainability
USAID	United States Agency for International Development

Section 1:

Executive Summary

Section 1



1.0 EXECUTIVE SUMMARY

Overview

A five-day capacity building residential workshop was held from 9th to 13th October 2023 at the Noda Hotel, Kumasi for participants from the nine (9) First Africa Higher Education Centers of Excellence (ACE) in Ghana. The workshop theme was *ACE Concept Sustainability through Market Access and Industry Collaboration*. Its overarching goal was to explore practical ways to sustain the activities of the ACE Centres and find markets for its outputs. The workshop design and delivery were based on adult learning principles. A training evaluation conducted at the end of the workshop showed that the expected key outcomes were achieved.

Participation

Fifty-two (52) participants attended the workshop comprising thirty-eight male (73%) and 14 female (27%). Participants included staff from ACE Centres in several universities in Ghana, as well as officials from the Ghana Tertiary Education Commission (GTEC) and the Association of African Universities (AAU). Participants comprised academics and administrators.

Training Methodology

The training was held in a workshop format with the opportunity for participants to engage in consultative discussions, group brainstorming, and dialogue. It was a five-day workshop which began with a presentation by an HR Consultant on the overall context and strategic analysis of the human capital market situation. In the subsequent days, seasoned industry experts in agriculture, sanitation & water resources, and power/engineering delivered overview presentations of their respective sectors while discussing potential industry collaborating opportunities for ACE Centres. The last day of the workshop focused on harnessing and harmonizing all the key discussion points into one roadmap for achieving sustainability of the ACE Centres.

Evaluation

A post-training anonymous evaluation conducted at the end of the workshop showed that 92% of participants ranked the workshop sessions as *Excellent* or *Very Good*. Participants described the workshop as experiential and insightful. Recommendations for further capacity

building were on *Emotional Intelligence and Conflict Resolution, Industry Sustainability and Collaboration (Part II)* and *Project Management and ICT in Project Management*.

Section 2:

Project Background and Engagement Overview

Section 2

2.0 CLIENT PROJECT BACKGROUND AND ENGAGEMENT OVERVIEW

2.1 Client Project Background

The ACE IMPACT Project's main objective is to improve the quality, quantity and development impact of postgraduate education in selected universities through regional specialization and collaboration. It is part of the World Bank's Africa Regional Integration and Cooperation Strategy. It is also well aligned with the pillars of "Renewing Social Contract" and "Regional Cooperation" for the Africa Region **by strengthening skills that match market demands**; building greater citizen trust, inclusive and accountable service delivery; promoting a regional education initiative.

It is a regional project covering the five (5) countries of Ghana, Senegal, Burkina Faso, Guinea and Djibouti. In Ghana it is managed by GTEC (Ghana Tertiary Education Commission) as the PCU (Project Coordination Unit) and the nine (9) Centers of Excellence from various universities as the Implementing Agencies. The centers comprise of center leaders (usually a faculty member or dean) and other teaching and research faculty members with administrative tasks aided by fiduciary and monitoring team members. The AAU (Association of African Universities) head quartered in Ghana is the Regional Facilitation Unit of the Project, thus providing oversight across the various participating countries. Ghana has US\$60mn out of the total of US\$258mn. The project duration is 2019 – 2024. The nine (9) Ghana Ace centers include those from University of Ghana (UG); Kwame Nkrumah University of Science & Technology (KNUST); University of Cape Coast (UCC); University of Development Studies (UDS) etc.

List of the Nine (9) Ghana ACE Centres

Ace Centre	Theme
Regional Water and Environmental Sanitation Centre Kumasi (RWESCK), KNUST, Ghana (https://rwesck.org/)	Water and Sanitation
Regional Center for Energy and Environmental Sustainability (RCESS), University of Energy and Natural Resources, Ghana (https://rcees.uenr.edu.gh/)	Energy (Engineering)
West African Center for Water, Irrigation and Sustainable Agriculture (WACWISA), University for Development Studies, Ghana (https://wacwisa.uds.edu.gh/)	Agriculture and Irrigation
Africa Centre of Excellence in Coastal Resilience (ACECoR), University of Cape Coast, Ghana (https://acecor.ucc.edu.gh/)	Agriculture and Irrigation

Regional Transport Training and Research Centre, (TRECK) KNUST, Ghana (https://treck.knust.edu.gh/)	Energy (Engineering)
College of Engineering, CoE-KNUST (KEEP), Kwame Nkrumah University of Science and Technology, Ghana (https://keep.knust.edu.gh/page/about-knust-engineering-education-project)	Energy (Engineering)
West African Centre For Cell Biology of Infectious and Non-Communicable Diseases (WACCBIP + NCDS), University of Ghana (https://www.waccbip.org/)	Health
West Africa Centre for Crop Improvement (WACCI), University of Ghana (https://wacci.ug.edu.gh/)	Agriculture and Irrigation
West Africa Genetic Medicine Centre (WAGMC), University of Ghana (https://wagmc.org/)	Health

Table 1

The centres are intended to be Top Quality Faculties of Learning and Research planted in the various universities producing quality postgraduates (people) and research & development (technology-based solutions) in specialised areas of study for industry uptake and utilisation. Some of the Project's Key Performance Indicators are:

- i. Number of students (national and regional) enrolled in specialized master's, PhD and short-term professional courses/programs in the ACEs (Quantity of Education & Regional Specialization)
- ii. Number of ACE programs and ACE host institutions that obtain international accreditation (Quality of Education)
- iii. Percentage of ACE host institutions with a comprehensive strategic plan for regionalization (Regional Specialization and Collaboration)
- iv. Number of ACEs that have had substantial development impact (as measured by an independent evaluation of each centre's impact on development at mid-term and end of project)
- v. Number of students and faculty participating in internships in relevant institutions (Development Impact of Education)

The project consists of three (3) components:

- Component 1: Establishing new and scaling up well-performing existing ACE centers for development impact;
- Component 2: Fostering regional partnerships and scholarships; and
- Component 3: Enhancing national and regional project facilitation and M&E.

Component 1 will aim to strengthen capacity in 16 ACE centers and their host institutions (supply-side), while Component 2 will aim to strengthen non-ACE institutions in the region and allow students to benefit from the capacity in the ACE centers (demand-side). Centers under Component 2 will be known as Emerging centers. Component 3 will aim to support national and regional facilitation of the project and M&E related activities. **Financing for Components 1 and 2 are result-based, while financing for Component 3 is input-based.**

Component 1	Component 2	Component 3
Establishing new and scaling-up well-performing existing ACEs for development impact	Fostering regional partnerships and scholarships	Enhancing national and regional project facilitation, and M&E
Sub-component 1.1 Support to establish new centers of excellence. Sub-component 1.2 Support to scale-up well performing ACE I centres	Sub-component 2.1 Support to emerging centers (non- ACEs) for networking, regional technical assistance and improving learning environment. Sub-component 2.2 Support for PhD scholarships through the PASET Regional Scholarship & Innovation Fund	Sub-component 3.1 Support for project facilitation and M&E at the regional level Sub-component 3.2 Support for national level coordination (Burkina Faso and Ghana) by government designated national higher education agencies

Table 2

2.2 Engagement Overview

A Request for Expression of Interest published in the Ghanaian Times edition of 19th May 2023 by the Ghana Tertiary Education Commission (GTEC) invited firms to express interest in the design and delivery of a workshop, on the theme: ACE CONCEPT SUSTAINABILITY THOROUGH MARKET ACCESS AND INDUSTRY COLLABORATION (Reference No. GH-NCTE-347987-CS-CQS).

Following submission of its Expression of Interest and subsequent Technical and Financial Proposals, Trust Training Ltd was awarded a contract to execute the said assignment. The summary Terms of Reference for the assignment are as follows:

- Review and analyse the challenges of the ACE centres.
- Design from the review above, and in line with global best practice, a detailed and context-specific workshop suited to proffer solutions to the challenges of the Centres.

- Implement the capacity building workshop.
- Development of a road map or plan for potential implementation.
- Undertake an evaluation of the workshop and provide recommendations to enhance the productivity and work of the Centres.

Inception meetings were held between Trust Training and GTEC officials to align expectations, plan and agree on all modalities of the workshop.

Section 3:

Workshop Delivery

Section 3



3.0 WORKSHOP DELIVERY

3.1 Objectives, Format and Approach

This section of the report details the objectives, format, methodology and participation of the workshop.

3.1.1 Workshop Objectives

The workshop sought to achieve two main objectives:

1. Ensure the long-term sustainability of ACE centers by identifying and securing alternative, sustainable sources of non-public funding to support their activities beyond the project's funding duration.
2. Facilitate the development of effective strategies to establish markets for the outputs of ACE centers, encompassing both graduates and research and development solutions, through active industry engagements, collaborations, and partnerships.

3.1.2 Workshop Format

Workshop sub-segment	Venue & Dates
<p>Training/Workshop for ACE Concept Sustainability through Market Access and Industry Collaboration.</p> <p>Day 1: Overall Context and Strategic Analysis</p> <p>Day 2: Water & Sanitation and Energy/Power Sectors</p> <p>Day 3: Health and Agriculture & Irrigation Sectors</p> <p>Day 4: Group Work, Brainstorming Sessions and Presentations</p> <p>Day 5: Development of an outline ROAD MAP or PLAN for potential implementation</p>	<p>Date: October 09 - 13, 2023</p> <p>Venue: Noda Hotel, Kumasi</p> <p>Residential</p>

Table 3

Details of workshop format and content can be found in **appendix 3**.

3.1.3 Workshop Methodology

The workshop was conducted as a five-day program. It began on day one with engaging icebreaker activities, providing participants with an opportunity to introduce themselves and set their expectations for the workshop. Throughout the training, participants worked in groups, primarily on a centre basis. The training incorporated various elements, including course presentations, practical exercises, interactive question-and-answer sessions, and concluding discussions. Participants were treated to a barbecue night mid-way through the

workshop to help them unwind and network with one another.

The workshop was primarily organised into three (3) parts. Part one of the workshop was led by an HR Consultant who presented background and context and provided strategic analysis of the human capital market situation. In part two of the workshop, industry experts with an average of thirty (30) years of experience in their respective sectors of agriculture, sanitation & water resources, and power/engineering delivered overview presentations of their respective sectors. They further discussed potential industry collaboration opportunities with ACE Centres. Although a health expert had been scheduled to facilitate one of the sessions, this session was cancelled because participants from ACE centres in health could not attend the workshop.

In part three of the workshop, participants were grouped according to their centres, and undertook group discussions and brainstorming to develop ideas, strategies and techniques on how to strengthen industry collaboration and gain market access. The outputs from the group work were harmonized together into a road map for achieving sustainability of the centres.

3.1.4 Workshop Participation

A total of fifty-two (52) individuals, comprising participants from seven (7) ACE centers and GTEC, actively participated in this training. This comprised academics and administrators. ACE Centres in attendance were:

- Regional Water and Environmental Sanitation Centre Kumasi (RWESCK), KNUST, Ghana
- Regional Center for Energy and Environmental Sustainability (RCESS), University of Energy and Natural Resources, Ghana
- West African Center for Water, Irrigation and Sustainable Agriculture (WACWISA), University for Development Studies, Ghana
- Africa Centre of Excellence in Coastal Resilience (ACECoR), University of Cape Coast, Ghana
- Regional Transport Training and Research Centre, (TRECK) KNUST, Ghana
- College of Engineering, CoE-KNUST (KNUST Educational Engineering Project), Kwame Nkrumah University of Science and Technology, Ghana
- West Africa Centre for Crop Improvement (WACCI), University of Ghana

3.2 Report of Workshop Proceedings

3.2.1 Opening Remarks

Nicholas de-Heer, Manager at Trust Training, welcomed participants and introduced the format of the workshop. He expressed optimism that given the quality of the facilitators and the participants assembled, a rich diversity of ideas would be shared, and key outcomes of the workshop will be achieved. Dr. Edmund Aalangdong, Project Coordinator for the First ACE Impact Project welcomed participants and provided the rationale and objectives of the workshop. He encouraged participants to freely network with one another and underscored the pivotal role of team collaboration in ensuring regional success.

Dr. Sylvia Mkandiwire, Program Manager of the African Higher Education Centers of Excellence for Development Impact at Association of African Universities (AAU), conveyed her gratitude to GTEC for its dedication to capacity enhancement. She emphasised the imperative of reengineering efforts to secure additional resources for the sustained transformation of the project. She also underlined that the project's achievements will reverberate far beyond the boundaries of participating universities. She stressed the importance of fostering seamless connections between academia and industry, and in the spirit of collaboration, encouraged active participation and the exchange of insights to enhance the initiative.

The Chairman of GTEC, Prof. Kwame Bofo Arthur, in his opening remarks, reiterated the central theme of the training, underscoring the dedicated efforts aimed at fostering excellence in sustaining the initiatives of GTEC through ACE projects. He emphasised the pivotal role played by innovation and the cultivation of highly skilled professionals across diverse fields in achieving these goals. Notably, these achievements extended their positive influence to regional levels, where Ghana's accomplishments in various projects have been widely recognised and applauded by the media. He stressed the importance of acknowledging these successes in knowledge creation and dissemination, recognising them as the solid foundation upon which a sustainable future can be built. Furthermore, he underscored the pressing need to maximise and perpetuate these achievements, ensuring their enduring impact and contributions on a whole.

3.2.2 Day One – Overall Context and Strategic Analysis

Session one of the training laid a solid foundation for further exploration and collaborative problem-solving, with participants setting their learning objectives, engaging in a SWOT

analysis, and brainstorming for sustainable solutions along the lines of human resources. The day's sessions fostered active participation and set the tone for the upcoming training days.

Session two was dedicated to guiding participants in setting their learning objectives. Participants were introduced to the fundamental concept that learning objectives act as a vital bridge between the initial training needs analysis and the actual training process. Participants were informed that learning objectives typically revolve around the acquisition of knowledge or skills. They were further clarified as specific goals or outcomes that significantly impact the organisation. Learning objectives were emphasised as outcome-based, signifying that they should clearly define what participants are expected to achieve by the end of the training. In addition to this, participants were provided with a refresher on the overview of the ACE Impact project and its key performance indicators, setting the stage for deeper engagement with the training content. The final part of the session was dedicated to comprehensive SWOT analysis of the various centers. Participants were tasked with identifying strengths, weaknesses, opportunities, and threats within their respective centres. This exercise allowed for an in-depth examination of the current status and potential areas for improvement.

Session Three concluded with a dynamic brainstorming session. Participants were encouraged to brainstorm potential solutions to the threats and weaknesses identified during the SWOT analysis. The goal was to foster creative thinking and collaboration among participants to address the challenges faced by the ACE Centers effectively. The session wrapped up a thought-provoking discussion on the potential roles and strategies of Human Resources, Business Strategy/Marketing Strategists/Practitioners in a consultancy capacity to ensure the sustainability of the ACE Centers towards the long-term and sustainable management of identified challenges. Power dynamics, conflict resolution, effective leadership, and emotional intelligence were also discussed in depth to highlight its role and benefits to the success of ACE Impact.

3.2.3 Day Two – Water & Sanitation and Energy/Power Sectors

Day two of the training began with a focused exploration of the **Water and Sanitation**, and **Energy/Power** sectors. Participants embarked on a journey to understand the sector's intricacies, starting with an assessment of its current status. Discussions revealed both challenges and opportunities within the sector, providing crucial context for future considerations.

Session one centered on recent technological advancements in the sector, emphasising

how innovation impacts its operations. The discussion included a thorough analysis of the skill sets required for effective participation in the sector, while also looking ahead to anticipate future human resource needs. Participants engaged in a valuable comparative analysis, aligning the current state of the sector with ACE Center outputs to identify areas of alignment and improvement. The session also explored the synergy between industry insights and ACE Center contributions, particularly focusing on the role of graduates and technology solutions.

Session two focused on the Sanitation and Liquid Waste Management sector. Participants engaged in discussions on job opportunities and innovative solutions for enhancing solid waste management. A significant part of the discourse revolved around understanding the sector's human resource needs and aligning educational programs with employment prospects. Participants actively contributed insights, fostering a comprehensive grasp of the sector's intricacies and the pivotal role of ACE Centers in addressing its requirements. Throughout the session, participants explored strategies for aligning ACE Centers with the evolving sector needs, emphasising the bridge between education and industry requirements. The session further examined the provision of transferable skills to students and graduates, ensuring their preparedness for real-world challenges. The importance of offering ample internship and experiential learning opportunities during training was underscored, focusing on enhancing students' practical engagement with the sector. The conversation also delved into methods for increasing students' awareness and involvement in sector opportunities, including the significance of career fairs organised by institutions such as Regional Center for Energy and Environmental Sustainability (RCESS), University of Energy and Natural Resources, Ghana.

Session three, focused on **Energy and Power**. The session delved into the dynamic field of power and energy. Participants were introduced to the key stakeholders and the essential skills demanded by the energy sector. The discussion extended to both the current landscape and emerging areas of interest, encompassing crucial topics such as *energy transition and climate resilience, renewable energy, distributed energy resources, mini-grids, and energy efficiencies*. The session also highlighted potential areas of research, including the significance of technical standards such as American National Standards Institute (ANSI), International Organisation for Standardisation (ISO), and International Electrotechnical Commission (IEC) standards, as well as considerations related to Africa Continental Free Trade Area (AFCFTA) technical barriers. Emphasising the role of standardisation in ensuring

efficiency, productivity, and safety, participants recognised that adherence to standards also facilitates international trade. Knowledge of safety protocols and regulations, especially in settings like power plants and industrial environments, was stressed as a top priority. Understanding how to work safely with high-voltage equipment was deemed essential, requiring constant vigilance, and minimising distractions.

Session Four explored alternative funding sources, including partnerships with development organisations such as AfDB, World Bank, USAID, and SECO, among others. The involvement of diverse stakeholders, including the Ministry of Energy (MoE), Civil Society Organisations (CSO) specialising in the energy sector, collaborative partnerships, regulatory bodies, utility companies, and climate financing organisations like the Global Environmental Facility (GEF) and Green Climate Fund (GCF), was underscored to enhance growth and innovation within the sector. Extensive discussions also revolved around the identification of skill deficiencies within the energy sector. Participants acknowledged the challenges encompassing limited familiarity with the sector and its key players, insufficient training in industry standards, struggles in recognising basic equipment and components, a dearth of knowledge concerning environmental, health, and safety matters, as well as a lack of fundamental practical skills. These skill gaps extended to areas such as writing proficiency, competence in IT tools like Excel and PowerPoint, the cultivation of professionalism and soft skills, adept project management, data analysis, and technological expertise. Recognising and addressing these gaps took central stage in the participants' preparation for successful career opportunities in the power and energy sector.

3.2.4 Day Three – Agriculture and Irrigation Sector Focus

On the third day of the training, the focus shifted to the agriculture and irrigation sectors. **Session One** provided an in-depth overview and analysis of this vital sector, emphasising its multifaceted significance. Participants explored the pivotal role of agriculture as a key driver for poverty reduction, rural livelihood improvement, and its substantial contribution to the Gross domestic product (GDP). The session delved into the importance of ensuring food security, particularly in the face of climate change challenges. The participants recognised that the performance of the agricultural sector has profound implications, not only for rural communities but also for the growth of the agro-industrial sector. Additionally, the session examined the current status of agriculture in Ghana, emphasising the predominance of smallholder farmers, traditional practices, and rain-fed agriculture. The sector's division into four subsectors, including Crops (including cocoa), Livestock, Forestry and Logging, and

Fishing, was addressed. The session highlighted the sector's vital role in providing food and raw materials for the manufacturing industry, thus contributing significantly to employment and poverty reduction.

Session two, focused on the potential for improving Ghana's agribusiness sector, which holds the promise of higher incomes and increased job opportunities. The session stressed the importance of attracting private sector participation in the agricultural industry, positioning Ghana to compete on a global scale. Such development of agribusiness can lead to economic growth, structural transformation, and enhanced technical skills, subsequently catalysing economic activities, and fostering connections between major sectors of the Ghanaian economy. Modernising agriculture, increasing productivity, and transforming the agricultural sector remain policy goals, along with the promotion and enhancement of investment in the sector. The establishment of the Agribusiness Unit (ABU) within the Ministry of Food and Agriculture (MoFA) in 2012, with its role in facilitating investment and offering technical support to agribusinesses, was highlighted. The session emphasised the importance of addressing challenges such as climate change, low crop productivity, weak agricultural value chains, and recent developments. Additionally, the expected outputs of the agriculture ACE centers, including post-graduate education in agriculture and irrigation, were discussed in the context of their relevance to development and the potential for economic spill-overs through the adoption of new technology, quality policy-making, improved higher education, and the diffusion of new labs, products, and processes.

Session three delved into employment opportunities and the anticipated human resource needs within the agriculture and irrigation sectors. Participants engaged in discussions focusing on how education and skills development align with the sector's requirements and the ever-evolving challenges in agriculture. The session emphasised the importance of preparing a workforce that can meet the sector's needs and address future demands, ensuring sustainable development in agriculture and irrigation. It underlined the significance of bridging the gap between academia and the industry, fostering a mutually beneficial relationship. Additionally, the discussion explored strategies for promoting employment opportunities and career advancement within the sector, with an eye on the diverse areas where skilled professionals are needed to drive agricultural innovation and growth.

3.2.5 Day Four – Group Work and Presentation

The day was exceptionally productive as participants engaged in intensive brainstorming

sessions conducted on a center-by-center basis. The focus of these sessions was to *practically develop strategies for securing markets for the outputs of all the centres, as well as to establish mechanisms for raising essential funds*. These discussions were marked by a collaboration and innovation, with each centre's team contributing their unique insights and expertise. The deliberations encompassed a comprehensive analysis of the specific market demands for their respective outputs, be it graduates or technology-based solutions. Furthermore, the participants explored avenues for industry collaborations, partnerships, and engagements that would not only provide markets for the centre's products but also shape the direction and relevance of the graduates and research and development solutions. These discussions were integral to ensuring the sustainability of the ACE Centers beyond the project's timeline. Participants also delved into strategies for raising funds, recognising the need for alternative, sustainable sources of financing to support the centres' activities when project funding diminishes. This day of brainstorming and strategising was instrumental in charting a course towards the continued success and growth of the ACE Centers.

3.2.6 Day Five – Preparation of Road Map

On the final day of the training, the participants embarked on a culminating journey, collectively guided through the intricate process of developing *a comprehensive template for a roadmap* that encapsulated all the insights, strategies, and knowledge that had been meticulously developed and refined throughout the training. This roadmap served as a blueprint for possible implementation, synthesising the multifaceted discussions and action plans formulated throughout the training program (Attached in appendix). Participants were encouraged to weave together the various threads of their newfound understanding, ensuring that the roadmap was a holistic and pragmatic tool ready for deployment.

In a symbolic moment of recognition and celebration, the participants were honoured with certificates of completion, signifying their dedication and commitment to the training's objectives. Furthermore, outstanding participants and exceptional groups were given due acknowledgement for their remarkable contributions and accomplishments during the training. This final day was not only a culmination of learning but also a promising beginning, as the participants departed with a roadmap to drive positive change and the skills to make it a reality in their respective spheres of influence.

3.3 Closing Remarks

In his closing remarks, Bernard Alando, the designated course representative, expressed gratitude to GTEC, Trust Training Ltd, and all participants for their collective efforts at making the training session a resounding success. He emphasised the importance of collaboration and unity in achieving the training's objectives.

Representing Trust Training Limited, Joeline Quartey extended appreciation to the participants, recognising their unwavering commitment, even amid busy schedules. She encouraged continued collaboration among the participants, underscoring its significance for the success of the project.

Dr. Edmund Aalangdong, in his closing statements, lauded the facilitators and the exceptional Trust Training Team for their unwavering dedication and commitment. He expressed deep gratitude to all the participants for their active involvement and enthusiastic engagement throughout the training, underscoring the pivotal role they played in its success.

Section 4:

Evaluation Framework and Results

Section 4

A decorative graphic in the bottom right corner consisting of several overlapping geometric shapes. There is a large blue triangle pointing upwards and to the right, a smaller red triangle pointing downwards and to the right, and a red square. The shapes are layered, with the blue triangle being the largest and most prominent.

4.0 EVALUATION FRAMEWORK AND RESULTS

4.1 Evaluation Framework

A training evaluation was undertaken to gauge participants' impressions and feedback. This was done anonymously. The evaluation covered the course content, facilitation style, venue suitability, meals, etc. Key aspects of the evaluation form are indicated in the coding framework below.

4.1.1 Coding Framework

REACTION: CONTENTS & ACTIVITIES	
CODE	KEY
OA	Objectives Achieved (Contents)
EC	Effectiveness of Training Content (Contents)
APR	Activities & Presentations Relate to Work/Role (Activities)
AIG	Application of Insights Gained (Activities)
OR	Overall Rating (Overall)
RATINGS	
CODE	KEY
1	Very Poor
2	Poor
3	Good
4	Very Good
5	Excellent
OTHER COMMENTS	
6	Excellent Presentation and Practical Knowledge Competence by Resource Person
7	HOTEL SERVICES 1: Good Services, Good rooms
8	HOTEL SERVICES 2, Internet Problem, Poor Lightening in Room, Food rationing
9	Future Workshop Needs: PME- Emotional Intelligence & Conflict Resolution
10	Future Workshop Needs: Industry Sustainability & Collaboration II
11	Future Workshop Needs: Project Management & ICT in Project Management
12	Future Workshop Needs: Industry and Non-Public Funding Experts for Presentation

Table 4

4.2 Evaluation Results

4.2.1 Attendance/Survey Statistics

Workshop Sessions	Attendance (at end of session)	Survey Respondents	Percentage (%)
Overall Context and Strategic Analysis	52	42	81%
Water & Sanitation and Power/Energy	49	40	82%
Agriculture & Irrigation Focus plus Road Map	44	41	93%

Table 5

Reference to the table above, 81%, 82% 93% of the participants completed the evaluation forms for the respective workshop sessions. Below is a graphical representation.

Graphical Representation of Day Five Attendance against Survey Respondents.

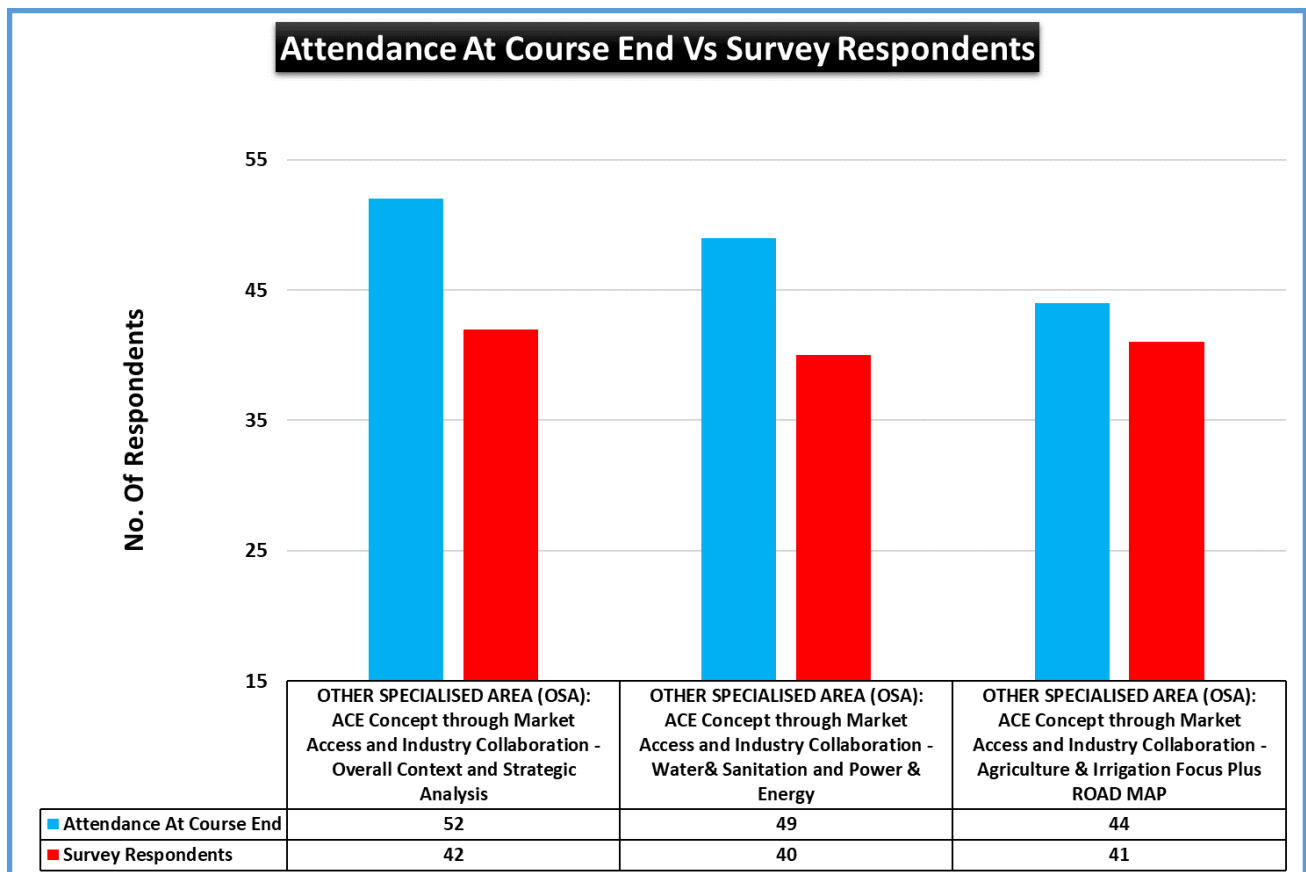


Figure 1

4.2.2 Course Evaluation Summary

Overall Context and Strategic Analysis

KEY/CODE	Objectives Achieved (OA)	Effectiveness of Training Content (EC)	Activities & Presentations Relate to Work/Role (APR)	Application of Insights Gained (AIG)	Overall Rating (OR)
5 Excellent	28%	14%	33%	38%	24%
4 Very Good	48%	67%	38%	55%	59%
3 Good	24%	19%	29%	5%	17%
2 Poor	0%	0%	0%	2%	0%
1 Very Poor	0%	0%	0%	0%	0%

Table 6

Participants demonstrated that the Overall Context and Strategic Analysis session was insightful. 94% of respondents ranked the session as *Excellent* or *Very Good*. Below is a graphical representation of the respective evaluation summary.

Graphical Representation of Overall Context and Strategic Analysis Summary

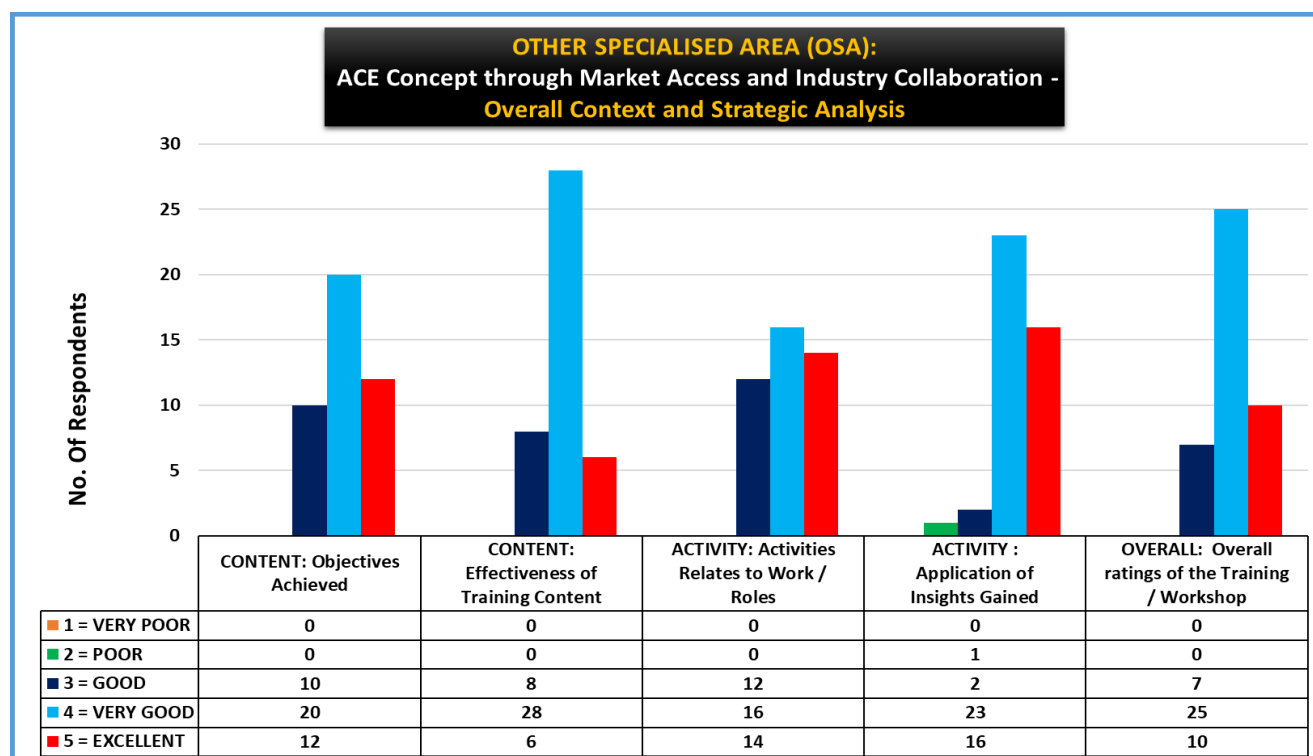


Figure 2

Water & Sanitation and Power/Energy

KEY/CODE	Objectives Achieved (OA)	Effectiveness of Training Content (EC)	Activities & Presentations Relate to Work/Role (APR)	Application of Insights Gained (AIG)	Overall Rating (OR)
5 Excellent	27%	27%	32%	25%	27%
4 Very Good	60%	60%	53%	55%	65%
3 Good	13%	13%	15%	20%	8%
2 Poor	0%	0%	0%	0%	0%
1 Very Poor	0%	0%	0%	0%	0%

Table 7

92% of respondents rated the Water and Sanitation and Power/Energy sessions as *Excellent* or *Very Good*, thus indicating its impact. Below is a graphical representation of the respective evaluation summary.

Graphical Representation of Water & Sanitation and Power/Energy Summary

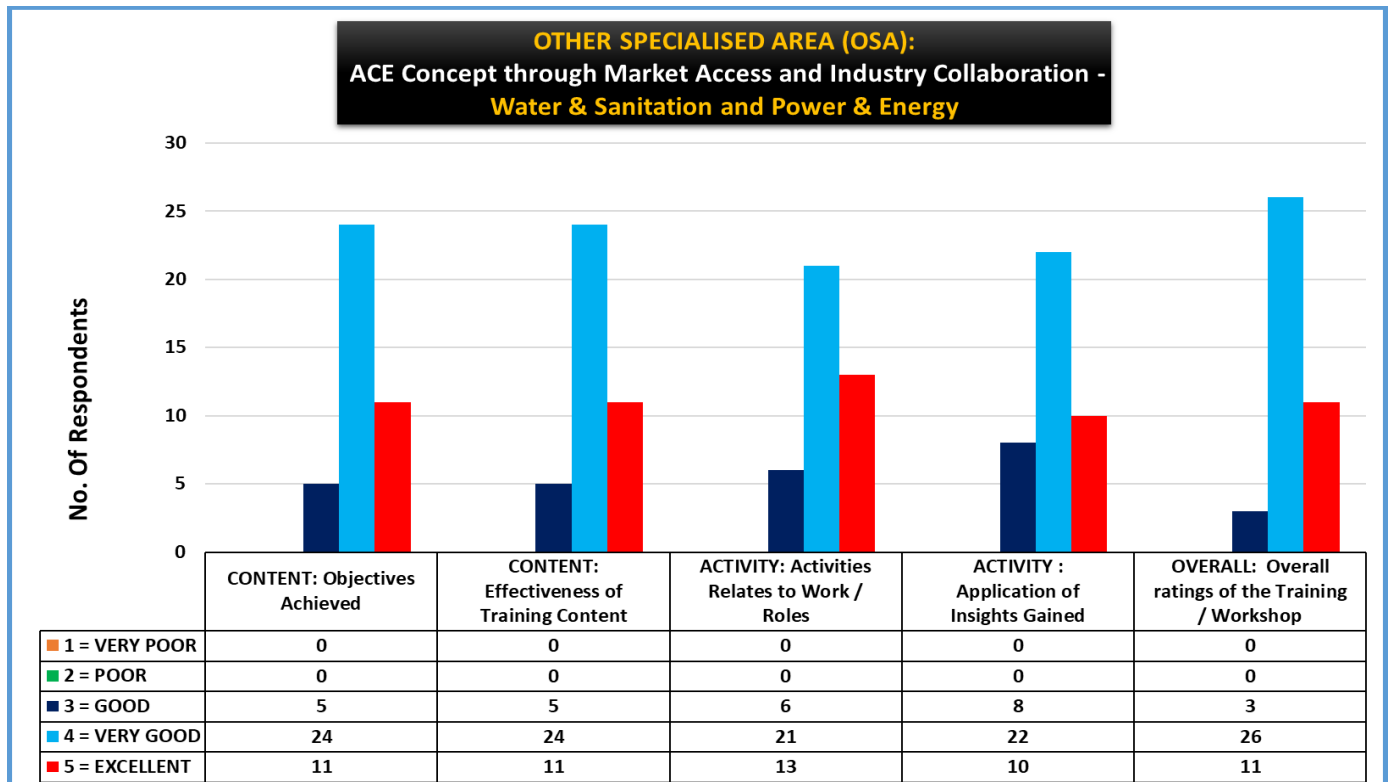


Figure 3

Agriculture & Irrigation Sector Focus plus Road Map

KEY/CODE	Objectives Achieved (OA)	Effectiveness of Training Content (EC)	Activities & Presentations Relate to Work/Role (APR)	Application of Insights Gained (AIG)	Overall Rating (OR)
5 Excellent	27%	22%	29%	27%	15%
4 Very Good	61%	66%	56%	63%	75%
3 Good	12%	12%	15%	10%	10%
2 Poor	0%	0%	0%	0%	0%
1 Very Poor	0%	0%	0%	0%	0%

Table 8

90% of respondents rated the Agriculture & Irrigation Sector focus and Road Map sessions as *Excellent* or *Very Good*, thus indicating its impact. Below is a graphical representation of the respective evaluation summary.

Graphical Representation of Agriculture & Irrigation Sector Focus plus Road Map Summary

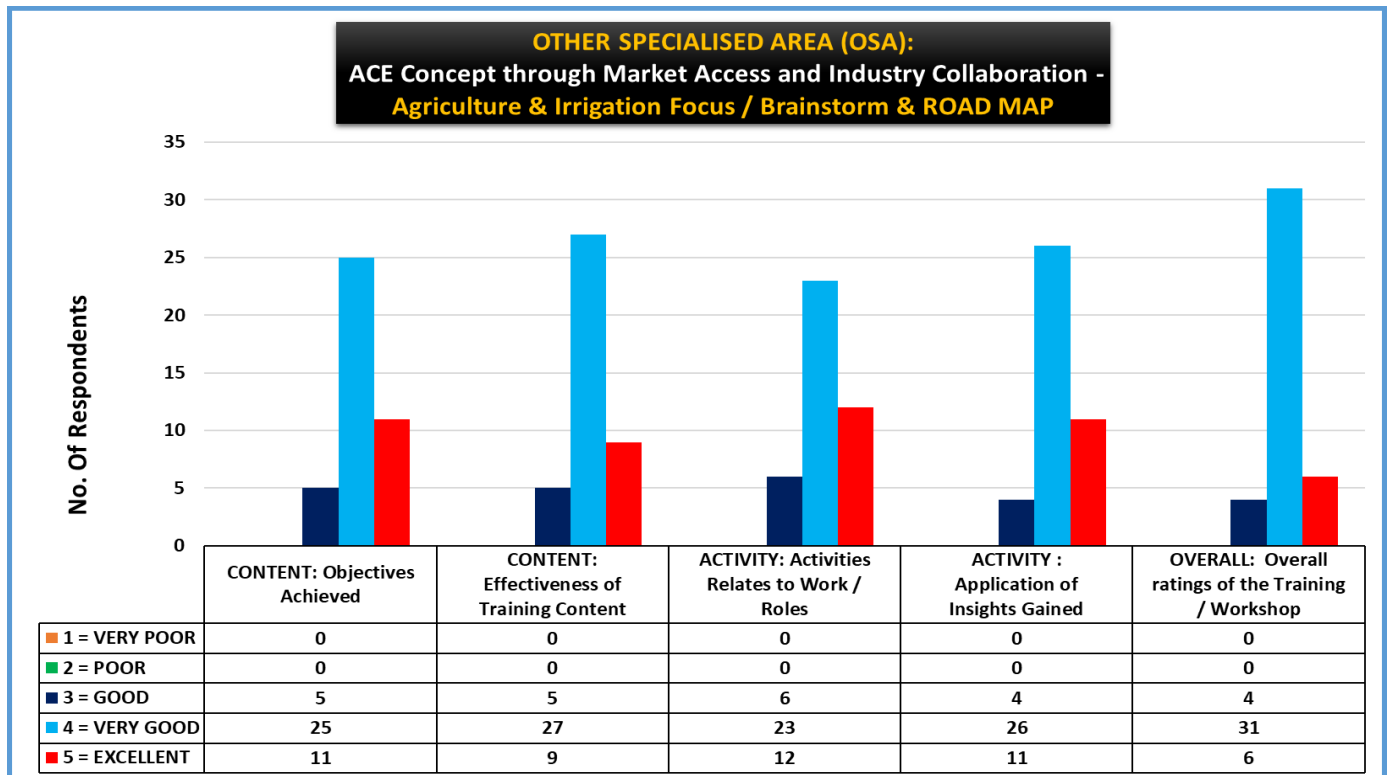


Figure 4

4.2.3 Training Needs and Other Comments

Number	Narration	Overall Context and Strategic Analysis	Water & Sanitation and Power & Energy	Agriculture & Irrigation Focus Plus ROAD MAP	TOTAL
6	Excellent Presentation and Practical Knowledge Competence by Resource Person	7	5	4	16
7	HOTEL SERVICES 1: Good Services, Good rooms	6	2	2	10
8	HOTEL SERVICES 2, Internet Problem, Poor Lightening in Room, Food rationing	7	6	1	14
9	Future Workshop Needs: PME-Emotional Intelligence & Conflict Resolution	5	2	0	7
10	Future Workshop Needs: Industry Sustainability & Collaboration II	4	5	0	9
11	Future Workshop Needs: Project Management & ICT in Project Management	0	0	2	2
12	Future Workshop Needs: Industry and Non-Public Funding Experts for Presentation	0	0	2	2

Table 9

Graphical Representation of Training Needs and Other Comments.

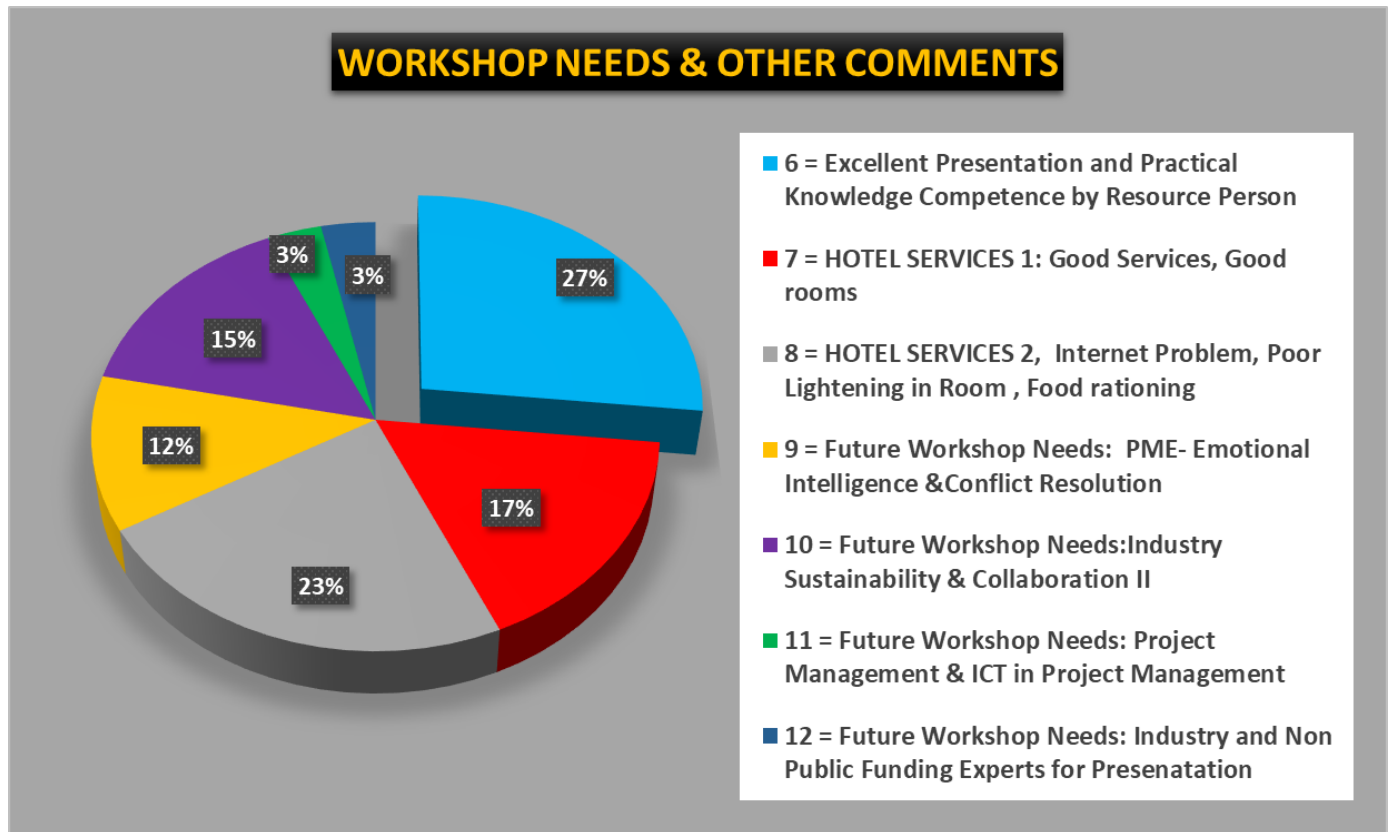


Figure 5

Section 5:

Conclusion & Recommendations



Section 5

5.1 Conclusion

The capacity building workshop for the ACE Centres successfully met its objectives. Participants had the opportunity to engage with industry experts and obtained insights on potential collaboration opportunities. They also had the opportunity to dialogue and brainstorm on ideas, strategies and techniques towards the sustainability of their Centres. In the end, they were guided to draw up a sustainability road map. Furthermore, the workshop provided a networking forum for sharing ideas and strengthening collaborations among the Centres.

5.2 Recommendations

It is the recommendation of Trust Training that GTEC will engage a suitable consultant to implement the road map and mechanism for funding to address the sustainability issue of the ACE Centres in the long term.

Section 6:

Engagement Team & Firm Profile

Section 6



6.1 KEY ENGAGEMENT TEAM

6.1.1 Facilitators

Mrs. Anita Wiafe-Asinor (MSc, DipPsych, ACIPD) is a HR and Organisational Development Senior Consultant with over 15 years' experience in key areas of Strategic Human Resources Management and Organisational Development (OD). She comes with extensive consulting experience in human capital management and has worked across various countries including Ghana, United Kingdom, Brazil, Mexico, Senegal, Kenya, Cameroon, Bangladesh, South Africa, Botswana, Nigeria, Ivory Coast, Botswana, Singapore and the Gambia. Anita has engaged in an array of projects for the Government of Ghana, private institutions and civil society organisations. She is a Certified International Labour Organisation (ILO) Trainer and a Certified ADR Practitioner of the National Labour Commission. She holds a Master of Science in Organisational Psychology & Human Resources from the University of Birkbeck, UK. She is an Associate Member of the Chartered Institute of Personnel and Development (CIPD UK) and a Member of British Psychological Society (BPS UK), Division of Occupational Psychology.

Dr. Bertha Darteh (P.E, MGhIE, PhD, MPhil) is a Civil Engineer with specialisation in Water Supply and Sanitation Engineering and Waste Management. She wields over 19 years proven experience as a Civil Engineer, a Lecturer and Training Consultant with keen expertise in project management, capacity building, training and research. Bertha has worked as a consultant on various donor projects funded by the World Bank, the African Development Bank (AfDB), the Bill and Melinda Gates Foundation (BGMF), USAID, UNICEF and the European Union (EU). She has experience in training MMDA staff in knowledge management as well as sanitation service delivery and waste management. She has contributed to several publications and has featured as a Guest speaker and Expert Panelist at various International Events and Conferences in the WASH including World Water Forum, World Water Week and International World Water Day celebrations. She has also been a lead Rapporteur on World Water Week in Stockholm. She is a Professional Engineer (P.E) and member of the Ghana Institution of Engineering (Civil Division). Bertha holds a PhD in Natural Resources Management and an MPhil in Civil Engineering from University of Greenwich, UK and Kwame Nkrumah University of Science and Technology respectively.

Mr. Bernard Modey (FGhIE, CNT, MSc, PGDip, M.A) is an Energy Expert with technical depth. He possesses over 30 years' experience in providing technical and operational

oversight on donor funded Energy/Power projects that seek to aid the supply and access to affordable and reliable electricity across the West African Region. He is currently the Senior Ghana Technical Lead on the USAID-Funded Power Africa - West Africa Energy Program (WAEP). Other key projects he has been engaged on are the Integrated Resource and Resilience Planning (IRRP) Project and Ghana's Integrated Power Sector Master Plan (IPSMP). He holds two (2) Masters Degrees; Master of Arts in Economic Policy Management (University of Ghana, Legon) and Master of Science & Post Graduate Diploma in Electrical Engineering (University of Saskatchewan, Canada). Mr. Modey is currently the President of the African Electrotechnical Standardisation Commission (AFSEC) and a Fellow with the Ghana Institution of Engineering (FGhIE). He is a Certified National Trainer (CNT) with the Junior Chamber International (JCI), a Global Youth Leadership Development organisation.

Dr. John Azu (PhD, MSc) is an Agronomist, a Horticulturist, a Development and Management Consultant and Adult Training specialist with over 40 years of Post-Doctoral specialisation in Agriculture/Development Program Design, Management and Evaluation, Agronomy, Farming Systems, Post-harvest Technology, Export Production and Marketing of Fresh Produce, Sub-sector Studies, Value Chain Analysis and Development, Environmental Assessment and Design, Gender Mainstreaming and Institutional Capacity Assessment/Development including Institutional Architecture Assessment (IAA) and development of action plans for agriculture and food policy reform. He has worked with various donors as a technical and functional expert across various organisations including the Ministry of Food and Agriculture, Ghana, USAID, Ghana/Washington, US Department of Agriculture (USDA), the World Bank, CARE International, TechnoServe, ADRA, AMEX International, Royal Haskoning and OIC International. Dr. Azu holds a PhD in Crop Physiology and MSc in Agronomy, both from the University of Guelph, Ontario, Canada.

6.1.2 Engagement Team

Abu Issifu is **CEO and Managing Partner** of Trust Training. He commands over twenty (20) years of experience in Training Consulting, Finance, Assurance, Project Reviews & Assessments, Governance and Risk Management for private and public sector institutions including The World Bank, ATS, Banlaw, BAT and KPMG among others. He is a Chartered Accountant and holds an MBA.

Robert Quarshie, Head of Operations commands over fifteen (15) years of experience in

Training Program Management, Logistics & Events Management, Research and General Administration. His work experience spans Europe, Australia and Ghana. He holds three (3) Masters Degrees (MSc, MCom, MPhil), a PGD and a BA. He has been affiliated with the Norwegian University of Life Sciences; University of New South Wales, Australia; University of Oslo, Norway; Horizon College of Learning, London; and University of Ghana, Legon, Ghana.

Nicholas Ekow de-Heer, Head of Business Development & Partnerships wields an impressive eighteen (18) years of experience as a project/program management consultant. Throughout his career, he has successfully led and managed diverse programs and projects in consulting firms and think tanks. Nicholas specialises in project conceptualisation and execution, designing strategic capacity building interventions, leading institutional reform and change, fostering innovative thinking within organisations, and facilitating impactful workshops and retreats for international audiences. His expertise also extends to strategic communications, policy analysis and advocacy, monitoring and evaluation, and rapporteuring. Notably, Nicholas is a periodic consultant for the World Bank, contributing to the design and facilitation of retreats for its staff from across the globe. He has undertaken consultancies for prominent organisations such as USAID, GIZ, DFID and many more others. He wields two masters degrees.

6.2 FIRM'S PROFILE

6.2.1 Who We Are

Trust Training Limited (TTL) commenced business operations in 2013, armed with the passion to set a higher standard of excellence in the provision of bespoke Capacity Building and Consulting Services. Today, our firm stands tall as a foremost professional services provider in Ghana with an unmistakably bold footprint: over 200 capacity building assignments on *development projects*, delivered on behalf of over 1000 project staff and beneficiaries spanning at least twenty (20) Government Ministries, Departments and Agencies. This has been made possible through our core team of dedicated permanent staff and a wide and diverse associate pool of over 100 Training Consultants who are seasoned experts scattered across five continents of the globe, some of whom have successfully executed capacity building assignments on behalf of government institutions and development agencies.

With a **Vision** to become the most trusted brand in capacity building and consulting services in Ghana and West Africa, we consistently add value to the work of government agencies and international development agency-funded project interventions. Our niche has been multilateral agency-funded projects, particularly World Bank projects located within Ministries, Departments and Agencies of Government. Over the last **ten (10) years**, we have built in-depth understanding of the requirements of development programs and interventions and how these shape project delivery expectations and training. However, we are open to expanding into other areas.

Exceeding Client Expectations remains the hallmark of our work. This has been achieved through our robust quality assurance system which has at its core, a surgical attention to detail for every aspect of the business process. Our Resource Persons/Associates typically wield up to three decades of hands-on relevant experience, in addition to solid academic credentials. Our approach has been to situate global benchmark practice firmly in the local context.

Our Approach is to engage productively with our clients throughout the entire assignment conception and execution process, taking feedback and sharing well-thought through recommendations that seek to solve problems at the root.

Our Values permeate every facet of our work with Clients, Associates, Staff and Suppliers. These are (10) guiding principles deeply engrained in our corporate DNA:

- ❖ Trust – We assume the best intentions from all
- ❖ Respect – We hold each individual in high esteem always
- ❖ Humility – We are eager to listen and learn
- ❖ Professionalism – We hold ourselves to the highest professional and ethical standards
- ❖ Teamwork – We believe that teamwork creates value that exceeds the sum of our individual efforts
- ❖ Confidentiality – We do not share Client information with third parties
- ❖ Excellence – We pursue perfection in all our work
- ❖ Openness/Transparency – We operate a culture of free expression and fairness at all times
- ❖ Integrity – We uphold honesty and fairness always

- ❖ Participatory problem solving – We welcome all ideas irrespective of the source

6.2.2 Our Training Package

At Trust Training, we define a successful training as one that is *impactful, delightful and inspiring*. In other words, our standard is to ensure that actual knowledge and skills are transferred, participants have an enjoyable and relaxing experience, and they feel motivated to excel in their work roles after the training. To this end, we offer our training service as a **full premium experience package** with a full bouquet of ingredients:

- ❖ World Class Trainers backed by a team of friendly operational staff on hand to offer needed support during training
- ❖ Top-notch Training Facility with excellent ambience, well-functioning equipment and audio-visual aids; timely and refreshing meals, snacks, barbecue.
- ❖ Special Barbecue with music to add fun, break the ice, and promote socialisation among participants.
- ❖ Adequate Stationery (Note pads, pens, folders, etc.)
- ❖ Course Materials (hard and soft copies)
- ❖ Certificates and Group photographs
- ❖ Gifts and memorabilia for participants
- ❖ Participant Evaluation of the various facets of the Training
- ❖ Comprehensive end-of-training Report for the Client

Our **Resource Persons** are highly seasoned experts, typically with up to three decades of hands-on experience and solid academic laurels. They form our associate pool. We select the best fit Resource Person(s) to execute the assignment.

The **Venue** for our workshops is typically first-class hotels. We are able to leverage our relationships built with specific hotels over the years to secure excellent conference packages and premium services. We consider this an integral part of our brand promise because high quality meals, accommodation and conference facilities are key ingredients for a successful workshop.

Our Training Methodology is anchored on adult learning principles. Class sessions comprise a rich combination of tailored case studies, experience sharing, role plays, group presentations, brainstorming and fun games. Beyond the key knowledge and skills we seek to impart, our trainings are designed to act as platforms for individual and group introspection,

problem diagnosis, and co-joining of ideas to elicit professional growth and practicable solutions to our client's project or organisation. Through a comprehensive course evaluation at the end of every program, we continually strive to improve on our journey to perfection. Our training approach is typically guided by key principles:

- ❖ We make use of adult learning principles in all our training – delivery is highly participatory and experiential, where our trainers guide participants towards problem identification and mitigation.
- ❖ Independent expectations of our participants are usually captured at course openings on blank individual cards completed without names.
- ❖ Our trainings are tailor-made rather than generic. We tailor the training to the participants' situation, drawing on actual case studies from the participants' everyday work and challenges.
- ❖ We apply global standards and situate them in the local context. This we term as "Global Knowledge within Local Experience".
- ❖ We cover the entire training management cycle: training needs assessment, training design, training manual development, training delivery, training evaluation, and reporting.

6.2.3 Our Affiliations

Trust Training holds affiliations with highly respected local and international professional bodies and organisations. These include the UK-based **CPD Certification Service**, a globally acclaimed international accreditation agency with 25 years of experience accrediting institutions of higher learning. Our accreditation with CPD is validation that our course content, resource persons and delivery methodologies have been rigorously assessed against global quality benchmarks of higher learning. Other CPD-accredited institutions include the University of Oxford, Kings College London and other distinguished world class institutions.

Locally, our firm is affiliated with the Ghana chapter of the globally respected **Project Management Institute (PMI)**, whose PMP accreditation is recognised as the international gold standard for project management professionals. Our training is further endorsed by the **Institute of Project Management Professionals (IPMP), Ghana** with whom we are affiliated.

6.2.4 Our Services

Our professional services fall into two (2) main categories: Capacity Building (Training) and Consulting.

Our key focus areas for **Capacity Building** are:

- ❖ Procurement & Contracts Management (PCM)
- ❖ Financial Management & Governance (FMG)
- ❖ Monitoring, Evaluation & Learning (MEL); Project Management; (PM)
Environmental & Social Safeguards (ESS);
- ❖ Personal & Management Effectiveness (PME)
- ❖ Decentralisation & Urban Management (DUM)
- ❖ Other Specialisations

To date, we have developed over one hundred tailored capacity building courses under the above areas and delivered training to thousands of participants.

Our **Consulting Services** cover a broad spectrum of organisational and assurance support including:

- ❖ Institutional Capacity Assessment & Strengthening
- ❖ Development of Strategy & Strategic Plans
- ❖ Financial Management Assessments and Reviews
- ❖ Procurement Reviews and Assessments
- ❖ Baseline Studies
- ❖ Mid-term Project Evaluations
- ❖ Development of Policy Documents and Manuals
- ❖ Community Stakeholder Engagement Interventions
- ❖ Value for Money Reviews & Assessments
- ❖ Independent Verification Agency Assignments
- ❖ Pre- and Post- Audit Reviews

Section 7:

Appendix

7.1 Appendix 1 – Workshop Participation

Breakdown of workshop participation.

Days	Expected Attendance	Actual Attendance	Percentage Attendance
1	50	52	104%
2	50	49	98%
3	50	43	86%
4	50	45	90%
5	50	44	88%

Breakdown of workshop participation for males and females per the respective days.

Days	Female	Female Percentage	Male	Male Percentage
1	14	27%	38	73%
2	13	27%	36	73%
3	13	30%	30	70%
4	12	27%	33	73%
5	12	27%	32	73%

7.2 Appendix 2 – Daily Summary - Actual Event Turn Outs

High Level Personnel							
Dr. Edmund Aalangdong – Project Coordinator, First Ace Impact Project Dr Sylvia Mkandwire – Program Manager, Africa Higher Education Centres of Excellence for Development Impact, AAU Prof Kwame Boafo Arthur – Chairman, Ghana Tertiary Education Commission (GTEC)							
Introduction by: Nicholas De-Heer Speech by: Dr Edmund Aalangdong, Dr Sylvia Mkandwire and Prof Kwame Boafo Arthur							
Ace Concept Sustainability Through Market Access and Industry Collaboration							
Class Mentor: Bernard Alando, Administrative Coordinator WACWISA-UDS							
Day 1: 9 th October, 2023							
9:35 -10:17	10:17-12:00	12:00 – 12:20	12:20– 1:30	1:30– 2:40	2:40- 5:15	5:15 – 5: 17	
Welcome Address & Introductions: Nicholas de- Heer Prof. Kwame Boafo, Dr. Edmund, Dr. Sylvia,							
	1 st Presentation	1 st Snack Break	2 nd Presentation	Lunch Break	3 rd Presentation	Closing Prayer	
Day 2: 10 th October, 2023							
9:24 - 11:05	11:05 – 11:37	11:37- 1:25	1:25 – 2:40	2:40 – 4:50	4:50 – 4:51		
1 st Presentation	1 st Snack Break	Presentation	Lunch	Presentation	Closing		
Day 3: 11 th October, 2023							
9:20– 11:00	11:00– 11:25	11:25- 1: 25	1:25- 2:30	2:30- 3:30			
1 st Presentation	1 st Snack Break	2 nd Presentation	Lunch	3 rd Presentation/C			
Day 4: 12 th October, 2023							
9:30 - 11:20	11:20 – 11:50	11:50- 3:07	3:07 – 4:00				
1 st Presentatio	1 st Snack Break	2 nd Presentatio	Lunch/ Closing				
Day 5: 13 th October, 2023							
8:30– 10:40	10:40– 10:55	10:55- 11: 30					
1 st Presentation	Closing Remarks	Closing Ceremony / Lunch					

7.3 Appendix 3 – Detailed Program Outline

DAY 1

Time	Agenda	Presenter/Moderator
Opening Ceremony		
9:00am – 10:00am	<p><i>Opening and Introductions, Mr Nicholas de-Heer, Manager, Trust Training (Workshop Moderator) – 10 min</i></p> <p><i>Context and Rationale of Workshop, Dr Edmund Aalangdong, Project Coordinator, First ACE Impact Project – 10 min</i></p> <p><i>Remarks by Dr Sylvia Mkandawire, Program Manager, Africa Higher Education Centres of Excellence for Development Impact, AAU - 10 min</i></p> <p><i>Welcome Remarks by Prof Kwame Boafo Arthur, Chairman of GTEC 15 min</i></p> <p><i>Workshop Format and Introduction of Facilitator (Moderator) – 5 min</i></p>	
10:00am – 11:00am	<p>General Perspective and Overall Context from a <u>Strategic Human Resource perspective</u>.</p> <ul style="list-style-type: none"> • <i>Viewpoints on ACE Impact project, its sustainability and market relevance</i> • <i>Exploration of Market Access and Industry Collaboration</i> 	Mrs. Anita Wiafe
11:00am – 11:15am	Snack Break	
11:15am – 1:00pm	Session on Power Dynamics and Conflict Resolution in the work context of ACE Centres and tertiary institutions.	Mrs. Anita Wiafe
1:00pm – 2:00pm	Lunch Break	
2:00pm – 3:30pm	Effective Leadership and Emotional Intelligence as a tool for enhancing productivity within the ACE Centres.	Mrs. Anita Wiafe
3:30pm – 3:45pm	Coffee Break	
3:45pm – 5:00pm		

DAY 2

Time	Agenda	Presenter/Moderator
9:00am – 9:10am	Introduction of Resource Persons	Mr Nicholas de-Heer
9:10am – 9:30am	Interaction with participants/Setting the stage	Dr Bertha Dartey
9:30am – 11:00am	Overview of the Water and Sanitation Sector	Dr Bertha Dartey

	<ul style="list-style-type: none"> Review and analysis of the sector with regards to their current status, developments, technologies, skill sets, employment opportunities and likely future human resource needs 	
11:00am – 11:15am	Snack Break	
11:15am – 1:00pm	<p>Comparing current realities in the sector with ACE Centre outputs.</p> <ul style="list-style-type: none"> Compare and align Industry insights with current outputs of the relevant ACE centres in terms of both Graduates (people) and Technology Solutions (R & D) <p><i>Discussion</i></p>	Dr Bertha Dartey
1:00pm – 2:00pm	Lunch Break	
2:00pm – 3:30pm	<p>Overview of the Energy/Power Sector</p> <ul style="list-style-type: none"> Review and analysis of the sector with regards to their current status, developments, technologies, skill sets, employment opportunities and likely future human resource needs 	Mr. Bernard Modey
3:30pm – 3:45pm	Coffee Break	
3:45pm – 5:00pm	<p>Comparing current realities in the sector with ACE centre outputs.</p> <ul style="list-style-type: none"> Compare and align Industry insights with current outputs of the relevant ACE centres in terms of both Graduates (people) and Technology Solutions (R & D) <p><i>Discussion</i></p>	Mr. Bernard Modey

DAY 3

Time	Agenda	Presenter/Moderator
9:00am – 9:10am	Introduction of Resource Persons	Mr Nicholas de-Heer
9:10am – 9:30am	Interaction with participants/Setting the stage	Dr John Azu
9:30am – 11:00am	Overview of the Agriculture and Irrigation Sector	Dr John Azu

	<ul style="list-style-type: none"> Review and analysis of the sector with regards to their current status, developments, technologies, skill sets, employment opportunities and likely future human resource needs 	
11:00am – 11:15am	Snack Break	
11:15am – 1:00pm	<p>Comparing current realities in the sector with ACE centre outputs.</p> <ul style="list-style-type: none"> Compare and align Industry insights with current outputs of the relevant ACE centres in terms of both Graduates (people) and Technology Solutions (R & D) <p>Discussion</p>	Dr John Azu
1:00pm – 2:00pm	Lunch Break	
2:00pm – 3:30pm	<ul style="list-style-type: none"> Strategic Engagement with participants 	Dr John Azu
3:30pm – 3:45pm	Coffee Break	

DAY 4

Time	Agenda	Presenter/Moderator
9:00am – 9:30am	Interaction with participants/Setting the stage	Dr John Azu
9:30am – 11:00am	<p>Group work and brainstorming sessions</p> <ul style="list-style-type: none"> Strategies for getting alternative funding to sustain the ACE program across all the nine (9) ACE Centres <p>Participants will be grouped according to the sectors; Water & Sanitation, Energy/Power, Health, Agriculture and Irrigation.</p>	Dr John Azu
11:00am – 11:15am	Snack Break	
11:15am – 1:00pm	<p>Group Presentations</p> <ul style="list-style-type: none"> Strategies for getting alternative funding to sustain the ACE program across all the nine (9) ACE Centres 	Dr John Azu
1:00pm – 2:00pm	Lunch Break	
2:00pm – 3:30pm	<p>Group work and brainstorming sessions</p> <ul style="list-style-type: none"> Strategies for securing markets for the outputs, both Graduates (people) and Technology Solutions (R & D) for all Centres of Excellence. <p>Participants will be grouped according to the</p>	Dr John Azu

	<i>sectors; Water & Sanitation, Energy/Power, Health, Agriculture and Irrigation.</i>	
3:30pm – 3:45pm	Coffee Break	
3:45pm – 5:00pm	<p>Group Presentations</p> <ul style="list-style-type: none"> • <i>Strategies for securing markets for the outputs, both Graduates (people) and Technology Solutions (R & D) for all Centres of Excellence.</i> 	Dr John Azu

DAY 5

Time	Agenda	Presenter/Moderator
9:00am – 9:30am	Interaction with participants/Setting the stage	Dr John Azu
9:30am – 11:00am	Development of an outline ROAD MAP or PLAN for potential implementation	Dr John Azu
11:00am – 11:15am	Snack Break	
11:15am – 1:00pm	Development of an outline ROAD MAP or PLAN for potential implementation	Dr John Azu
1:00pm – 2:00pm	Lunch Break	
2:00pm – 3:30pm	Closing Ceremony	Trust Training Team
3:30pm – 3:45pm	Coffee Break	

industry, and to contribute to the career advancement of subscribers. It should be affordable with a duration long enough to accommodate all relevant topics but short enough to enable subscribers the time to participate.

Sample Activities:

- Conduct a needs assessment with key stakeholders, after which continuous engagement should be embarked on.
- Stay in touch and serve as liaison between the board, alumni, and the center.
- Strategies involved are demand driven' professional, accreditation, fee, good publicity, general, highlight the benefits.

Alumni Support – The benefits or contributions from alumni including funds, research support, etc., (highlighted the value of the greatest asset of a university: its people, especially alumni. Universities should maintain a connection with alumni and share the progress within the university. Good and continued relationships with alumni can contribute to increased industry engagement, funding for research, donation and broader societal impact.

- Develop an alumnus database.
- Build communication and good relationships with existing students.
- Alumni engagements like homecoming
- Set clear objectives for the use of funds.
- Set up an alumni board of trustees and guidelines.
- Updates of activities
- Set up an office for alumni and involve them in decision-making.
- Motivate or recognize alumni.

4. Grants:

Development proposal/ research/ infrastructure/ lab items/ projects/ policy in specific thematic areas to seek funding from development partners; government companies; corporate private firms; NGOs, etc.

Sample Activities

- Subscription to research calls websites
- Research professional development aid
- Develop a database of all funding agencies.
- Call for EOI/ Proposal
- Proposal submission to the identified organization with thematic areas
- Position centres/ universities niche areas and relevant expertise/ subject matter experts for identification by funding organization.
- Develop strong/ strategic partnership with organizations in areas of industries.

5. Consultancy Services

Sample Activities

- Identify national industry or need.
- Assemble experts in the area to discuss the problem and place the experts in specific categories.
- Task each group to come up with a solution concept based on their area of expertise.
- Assemble the groups in a workshop to brainstorm on their solution concepts or approaches.
- Identify requisite inputs and potential concepts and how to overcome them.
- Undertake financial analysis and budgeting.
- Identify relevant industrial partners and discuss their participation for mutual benefits.
- Develop pilot implementation framework management evaluation and consider potential upgrade and scaling up.

6. Research Chairs

A meeting point where expertise is exchanged between professionals and the schools' professors and researchers. Faculty members who have been externally recognized for the exceptional excellence and impact of their research programs.

Sample Activities

- Capacity building
 - Building existing strengths in areas of strategic importance
7. Selling of center R & D solutions to industry (lump sum and continuing royalties).
 8. Financial profit from patents (Carry out innovative scientific research, aspiring to make advances in commercial solutions. Register patents and get partners from the business community to create financial opportunities).
 9. Renting out/leasing facilities

B. Strategies for Marketing of ACE Graduates and R&D

The overall goal of the group work was to:

1. Understand the perception of university–industry engagement among industry practitioners and academics,
2. Elicit possible measures to improve the current situation by increasing engagement and

3. Identify the ways in which universities can play a larger role in bridging the gap.

The two broad categories were the following:

1. Barriers to university–industry collaboration.
2. Approaches to improve this collaboration This would be one-sided since industry practitioners are not in the workshop, but their viewpoints could be explored in later study

These are some of the strategies that were captured explicitly by the working groups:

1. Increase the number of stakeholders organization to partner with (Identify the Stakeholders – Observing the bigger picture of collaboration indicates the presence of several stakeholders).
2. Motivate through various means with stakeholders to partner with the University (Universities and industry have invariably different motivations for collaborating. It varies from problem-solving, resource-sharing or information/people access to skills development through education. It is important to identify motivations and common areas before co-working or collaborating).
3. Increase visibility of the University’s training activities (Collaborative Platform – To address the lack of visibility of the university research).
4. Establish industrial parks to attract stakeholders.
5. Explore regulatory barriers for patenting.
6. Promotion of leadership which has skills in both academic and industrial affairs.
7. Develop mechanisms for engaging the private sector (awareness among researchers about a product and its life cycle. Understanding the real product and its contributing environment will lead to increased engagement between researchers and industry).
8. Explore avenues for marketing innovative ideas in student’s research and startups (Education – Researchers need to be educated and trained to think beyond the narrow confines of their research outcome as a publication, to the real-world application of their research).
9. Engage the private sector to identify the barriers to University Private sector engagement (Establish Efficient Communication – Interpersonal communication is a critical factor in the success of a relationship. Company and university leaders must understand each other).
10. Review the University policy in relation to legal provision for University Private sector engagement.
11. Explore the establishment of a research development fund in collaboration with the private sector.
12. Researchers emphasize the importance and need of understanding the nature of partnerships given a variety of interactions are available to achieve different objectives.
13. Social capital resources, which include trust, mutual obligations, common understanding, access to information and opportunities, play a crucial role in the formation and success of collaborations.

7.5 Appendix 5 – Group Photograph



**CAPACITY BUILDING WORKSHOP ON ACE CONCEPT SUSTAINABILITY
THROUGH MARKET ACCESS AND INDUSTRY COLLABORATION
HELD AT NODA HOTEL, KUMASI. FROM 9TH - 13TH OCTOBER 2023.**

7.6 Appendix 6 – Other Appendices

Other appendices outside this report includes

- I. Participants Data Analysis & Evaluation (soft copy)
- II. Participants signed attendance sheets (hard copies)
- III. Photo Album (during course sessions and certificate awards) – soft copy