

REACH-PSM | WP5 Inclusive Co-Design

CLEAN ENERGY VALUE CHAIN COMMUNITY ENGAGEMENT & CO-DESIGN DAY

Systemic Action Learning and Action Research (SALAR) Workshop

Host: Africa Centre of Excellence in Future Energies & Electrochemical Systems (ACE-FUELS), Federal University of Technology Owerri

Date: Friday, 5 June 2026

Time: 9:30 AM – 5:00 PM (Registration from 9:30 AM)

Venue: ACE-FUELS Events Lounge, FUTO, Owerri, Imo State, Nigeria

Format: Roundtable stakeholder engagement with structured SALAR data collection

Expected: 80–100 participants across the SHAPE ecosystem

1. Purpose and Design Rationale

This event integrates three objectives into a single, cohesive day:

Community Engagement & Media Showcase: ACE-FUELS demonstrates its innovations in next-generation solar, battery, and energy storage technologies to stakeholders, media, and the wider Owerri community.

SALAR Co-Design Research: REACH-PSM WP5 conducts structured data collection through facilitated roundtable discussions (serving as group interviews), individual surveys, and systematic observation. Data collection is the primary objective of the day and is allocated the majority of programme time.

Ecosystem Networking: Stakeholders from across the clean energy value chain connect, identify partnership opportunities, and co-design inclusive business models for local solar manufacturing.

The design seats delegates at stakeholder-themed roundtables aligned to the SHAPE Youth Entrepreneur Support Network categories. Each table is facilitated by a trained researcher who uses the theme-specific REACH-PSM interview schedule to probe discussion. The master of ceremonies (MC) poses overarching questions in plenary; table facilitators then deepen the conversation within each stakeholder group. This means the table discussions simultaneously deliver authentic community engagement *and* rigorous qualitative data collection. The full-day format ensures ample time for facilitators to work through the complete interview schedule and for the co-design activity to yield substantive outputs.

2. Roundtable Configuration (SHAPE Ecosystem Mapping)

Delegates are pre-assigned to tables by stakeholder category. Each table has a designated researcher/facilitator and a table number corresponding to the SHAPE network element and REACH-PSM interview theme.

| Table | SHAPE Element | Delegate Types | Research Instrument | Facilitator |
|-------|--|---|---|-------------|
| 1 | Communities (05) | Consumers, households, end-users | Consumer Questionnaire (Theme 1) + Consumer Co-Design Observation | R1 |
| 2 | Private Sector Firms (04) | Manufacturers, distributors, assemblers, retailers | Interview Schedule (Theme 2) + Manufacturer Questionnaire | R2 |
| 3 | Technicians & Installers | Certified installers, solar technicians, repair professionals | Interview Schedule (Theme 3) + Technician Observation | R3 |
| 4 | Community Groups (05) | Cooperatives, community energy groups, NGOs | Interview Schedule (Theme 4) + Community Co-Design Observation | R4 |
| 5 | Government Agencies (03) | NERC, REA, state energy/climate agencies, regulators | Interview Schedule (Theme 5) | R5 |
| 6 | Educational Institutions (02) | Universities, vocational centres, TVET colleges | Interview Schedule (Theme 6) | R6 |
| 7 | Entrepreneurs & SMEs (06) | Solar SMEs, local entrepreneurs, start-ups | Interview Schedule (Theme 7) | R7 |
| 8 | Corporations & Partners (07/09) | Large corporations, chambers of commerce, business associations | Interview Schedules (Themes 8 & 9) | R8 |

Note: If delegate numbers for a given category are small (e.g. government), tables may be merged. The Internationalisation element (SHAPE 08) and Personality Traits (SHAPE 01) are addressed through cross-cutting plenary questions and the individual questionnaires.

3. Programme of the Day

Data collection time at a glance: Table Buzz Rounds (30 min) + Deep-Dive SALAR Session (45 min) + Co-Design Activity (30 min) = approximately 1 hours 45 minutes of structured discussion and data collection.

| TIME | ACTIVITY |
|---------------|--|
| | PHASE 1: ARRIVAL, REGISTRATION & EXHIBITION |
| 09:30-10:50 | <p>Registration, Exhibition Viewing & Kobo Surveys</p> <p><i>Delegates collect name badges with pre-assigned table numbers. Delegate packs distributed (containing the Consumer Questionnaire or Manufacturer Questionnaire as applicable, programme, and consent form). External and ACE-FUELS innovation exhibition open for viewing and media photo opportunities. Research assistants circulate with Kobo tablets to begin pre-event survey administration. Tea and coffee available.</i></p> |
| | PHASE 2: OPENING CEREMONY & SHOWCASE |
| 11:00 – 11:15 | <p>Opening Remarks & Welcome Address</p> <p><i>MC welcomes delegates. Acknowledgement of partners: Swansea University, UKZN, Strathmore University, University of Cape Town, and the REACH-PSM consortium. Introduction to the day's dual purpose: stakeholder engagement and co-design research.</i></p> |
| 11:15 – 11:30 | <p>ACE-FUELS Innovation Showcase</p> <p><i>Overview of ACE-FUELS innovations in next-generation solar cells, battery technologies, and energy storage systems. Positioning Southeast Nigeria as a renewable energy technology hub. [Media-friendly segment – cameras and press welcome.]</i></p> |
| | PHASE 3: PANEL DISCUSSIONS WITH TABLE BUZZ SESSIONS |
| 11:30 – 12:15 | <p>Panel 1: Next-Generation Solar & Batteries: Building local manufacturing and reducing dependency on imports</p> <p><i>Panellists explore perovskite solar cells, tandem modules, sodium-ion batteries, and advanced energy storage. Emphasis on how local innovation and manufacturing can strengthen Nigeria's clean energy independence. [40 min panel presentation]</i></p> |
| 12:15 – 13:00 | <p>Panel 2: Challenges & Bottlenecks in Scaling the Clean Energy Value Chain</p> <p><i>Panellists address regulatory barriers, access to finance, technical skills gaps, low purchasing power, infrastructure constraints, and supply-chain challenges. [40 min panel presentation]</i></p> |
| 13:00 – 13:30 | <p>Table Buzz for Panels 1 & 2 sessions [30 min]</p> <p><i>MC poses overarching prompts (e.g. "What is the single biggest barrier to scaling clean energy in your sector?" and "What policy or financing support would make the greatest difference?"). Table facilitators continue probing the remaining interview questions from the schedule. Observers rotate to additional tables.</i></p> |
| 13:30 – 13:50 | <p>Tea/Coffee & Comfort Break/Photograph & Exhibition</p> <p><i>Refreshments. Delegates may begin completing paper questionnaires. Facilitators compare notes briefly and identify any questions not yet covered.</i></p> |
| | PHASE 4: DEEP-DIVE SALAR INTERVIEW SESSION |
| 13:50 – 14:35 | <p>Facilitated Deep-Dive Stakeholder Discussions [45 min]</p> <p><i>This is the core data collection session. No plenary interruptions – each table works at its own pace. Facilitators work systematically through any remaining interview questions, probing for depth and detail. This extended, uninterrupted block allows the conversation to move beyond initial responses into richer, more nuanced territory. Facilitators may also conduct brief one-on-one interviews with specific delegates at the table edge if needed. Observers continue circulating and</i></p> |

| | |
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| 14:35 – 15:05 | <p>completing observation sheets across all tables. Research assistants available to support.</p> <p>Plenary Feedback from Tables (Round 1&2) Spokespersons share headline insights. MC draws out areas of agreement and tension across stakeholder groups.</p> |
| PHASE 5: WORKING LUNCH & EXHIBITION | |
| 15:05 – 15:55 | <p>Lunch & Continued Conversations Light lunch served. Delegates may continue informal discussions at their tables or circulate. Research assistants use this window to administer Kobo surveys to delegates who have not yet completed them and to collect any finished paper questionnaires. Facilitators photograph flip-chart notes and prepare for the co-design activity.</p> |
| PHASE 6: CO-DESIGN ROUNDTABLE ACTIVITY | |
| 15:55 – 16:25 | <p>Structured Co-Design Activity [30 min] Each table works on a co-design task: “Design your ideal circular solar business model for Southeast Nigeria.” Facilitators use a template (flip chart or A3 sheet) with prompts: Who are the customers? What is the product/service? How is it financed? What happens at end-of-life? How does the community benefit? Who are the partners? This session generates rich qualitative data while producing tangible, participant-owned outputs. Observers complete the Co-Design Observation Sheets.</p> |
| 16:25 – 16:45 | <p>Gallery Walk & Cross-Pollination [20 min] Table outputs displayed. Delegates circulate to view other tables’ co-designed models. Facilitators remain at their tables to explain. Sticky-dot voting: each delegate places 2 dots on the business model idea they find most promising. This creates informal energy and allows delegates who were less vocal during table discussions to contribute their views.</p> |
| PHASE 7: CLOSING CEREMONY | |
| 16:45 – 16:55 | <p>Synthesis, Reflections & Next Steps MC summarises the co-designed business model ideas and headline research themes across the day. ACE-FUELS Director (Prof. Oguzie) reflects on implications for the Centre’s strategic direction. REACH-PSM WP5 lead acknowledges participants’ contributions to the research and outlines next steps for the project. Partnership follow-up actions communicated.</p> |
| 16:55 – 17:00 | <p>Vote of Thanks, Group Photograph & Media Wrap-Up Formal thanks to organisers, panellists, facilitators, and delegates. Group photograph. Brief media interviews (optional).</p> |
| 17:00 – 17:30 | <p>Survey Collection, Refreshments & Informal Networking Delegates complete and return any outstanding questionnaires (Consumer Questionnaire / Manufacturer Questionnaire). Final Kobo surveys administered. Collection box at exit point. Refreshments served. Informal networking and partnership matching continues.</p> |

4. Research Integration Plan

The table below specifies when and how each research instrument is deployed during the day, ensuring complete coverage without disrupting the flow of engagement.

| Instrument | When Administered | By Whom | How |
|------------|-------------------|---------|-----|
|------------|-------------------|---------|-----|

| | | | |
|--|--|---------------------------------|--|
| Consumer Questionnaire (Theme 1) | Distributed at registration (08:30); collected throughout the day and at exit (15:15–15:30) | Self-completed by delegates | Printed in delegate pack. Consumer-table facilitator (R1) assists where needed. Lunch break used as additional completion window. Collection box at exit. |
| Manufacturer Financial Questionnaire | Distributed at registration to Table 2 delegates; collected by 15:30 or returned electronically | Self-completed by manufacturers | Printed in delegate pack for relevant delegates. Complex instrument – facilitator R2 explains sections during Deep-Dive session. May be taken away and returned electronically within 7 days. |
| Interview Schedule (Themes 2–9) | Table Buzz Rounds (10:05–11:55) + Deep-Dive Session (12:10–13:15) + Co-Design Activity (13:45–14:25) | Table facilitators (R1–R8) | Facilitators use interview questions as discussion probes across all three sessions, providing approximately 2 hours 45 minutes of structured discussion time. Conversations audio-recorded (with consent). Facilitators take structured notes on a field sheet. |
| Consumer Co-Design Observation Sheet | Throughout Phases 3–6 (09:45–14:45) | Roving observer(s) | Observer circulates across Tables 1 and 4, rating engagement, co-design quality, and facilitator effectiveness. |
| Technician/Repair Observation Sheet | Throughout Phases 3–6 | Roving observer(s) | Observer focuses on Table 3, assessing technical knowledge sharing and repair ecosystem insights. |
| Community Co-Design Observation Sheet | Throughout Phases 3–6 | Roving observer(s) | Observer covers Tables 1, 4, and 7, evaluating community participation and quality of co-design outputs. |
| Kobo Tablet Surveys | 08:30–09:15 (pre-event), 13:15–13:45 (lunch), and 15:15–15:30 (post-event) | Research assistants | Administered on tablets during registration, lunch, and closing. Pre/post design where applicable. |

5. Roles and Responsibilities

Master of Ceremonies (MC): Guides the plenary programme. Poses overarching discussion questions to the room before each Table Buzz Round. Synthesises cross-table feedback. Keeps time. Steps back during the Deep-Dive session (Phase 4) to allow uninterrupted table-level discussion.

Table Facilitators (R1–R8): Each assigned to one stakeholder table for the entire day. Uses the relevant REACH-PSM interview schedule as a discussion guide across all sessions. Records the conversation (audio + notes). Encourages equal participation. Prepares a flip-chart summary for plenary report-back. Leads the co-design activity at their table. Responsible for ensuring all interview questions are covered by the end of the Deep-Dive session.

Roving Observers (2–3): Complete the observation sheets while circulating between tables. Do not intervene in discussions – observe and rate. Rotate across tables to ensure all are covered during Phases 3–6. Each observer should cover 3–4 tables across the day.

Research Assistants (2–3): Administer Kobo tablet surveys during registration, lunch, and closing. Distribute and collect paper questionnaires. Manage consent forms. Provide logistical support to facilitators. Serve as a “survey collection point” during the lunch break.

Table Spokespersons: One delegate per table, selected by the group. Presents 1–2 headline insights during plenary feedback rounds. Presents the co-designed business model during the Gallery Walk.

Registration & Logistics Team: Manages name badges with pre-assigned table numbers. Distributes delegate packs. Manages exhibition area, refreshments (morning tea, lunch, and afternoon refreshments), and media logistics.

6. Delegate Pack Contents

1. Printed programme of the day
2. Informed consent form (for audio recording and data use)
3. Consumer Questionnaire (for Tables 1 and 4 delegates) OR Manufacturer Questionnaire (for Table 2 delegates) OR no questionnaire (other tables)
4. Pen and notepad
5. ACE-FUELS information leaflet
6. REACH-PSM project summary (one-pager)
7. Table number card and name badge

7. Practical Notes for Organisers

Room Setup: Round tables for 8–12 delegates each, arranged cabaret-style facing a central podium/stage area. Each table has a flip chart or A3 sheets, markers, sticky dots (for Gallery Walk voting), and a table number tent card. A microphone for the MC and a lapel mic for panellists. Portable speakers if the venue is large.

Audio Recording: Each table facilitator should have a voice recorder or smartphone recording app. Ensure spare batteries/power banks for the full day. A backup recording device at the MC podium captures plenary feedback. Label all recordings clearly with table number and session.

Consent Process: Consent forms must be signed before any audio recording begins. Facilitators confirm verbal consent at the start of each table discussion. Consent covers: audio recording, use of anonymised quotes in publications, and photography.

Media & Photography: A designated media/photography window during the Opening Ceremony and ACE-FUELS Showcase (09:15–09:45) and at the Gallery Walk (14:25–14:45). Media may photograph the closing group photo. No media during table discussions to protect participant confidentiality.

Catering: Three refreshment points: morning tea/coffee during registration (08:30), light working lunch (13:15–13:45), and afternoon refreshments during closing (15:15–15:30). Ensure the

venue is accessible for persons with disabilities. Consider translation support if delegates include non-English speakers.

Facilitator Briefing: Hold a 30-minute facilitator briefing the day before or early morning (08:00–08:30) to walk through the interview schedules, recording protocols, consent procedures, flip-chart templates, and co-design activity instructions. Distribute a one-page facilitator guide.

Post-Event Data Management: All audio recordings, completed questionnaires, observation sheets, and flip-chart photographs to be collected and secured by the WP5 research lead on the same day. Digital backups within 24 hours. Kobo data synced and exported within 48 hours.

Prepared for the REACH-PSM WP5 team in support of the ACE-FUELS Clean Energy Value Chain Meet-and-Greet, 5 June 2026.