



Community of Champions Webinar Series

Webinar 1: Policies to
promote quality products:
from standards setting,
to effective implementation,
and consumer education



Logistics:

1. This is an audio broadcast. Attendee microphones will remain muted during the entire webinar session.
2. To ask questions during the webinar, please use the Chat box on the left-hand side of the Webinar session. Please submit your question at any time during the webinar presentation.
3. To ensure your question is seen by the moderator, select “All Participants” from the drop-down menu when sending the question.
4. The webinar recording will be emailed to all attendees and registrants.

Community of Champions

The Community of Champions was formed as an opportunity for high-level, ongoing exchange between **governments, the private sector and development partners to work collaboratively** towards creating a **supportive policy environment** to help achieve **universal energy access** in Africa.

- Lisbon May 2018
- Kigali November 2018
- Addis Ababa March 2019
 - (Eastern and Southern Africa only)
- Dakar October 2019
- Nairobi February 2020



Agenda

- **Introduction** - Francis Wainaina
- **Introduction to international quality standards, Harmonisation of standards**
– Christopher Carlsen
- **Effective introduction and implementation of standards** – Naomi Wagura
- **Country perspectives:**
 - Standards adoption and implementation in Kenya – Nana Asamoah-Manu
 - Participatory approach to standards adoption in Nigeria – Olakunle Owoye
- **Role of consumer awareness** – Drew Corbyn
- **End of the webinar**

Panelists



Francis Wainaina
GOGLA



Christopher Carlsen
CLASP



Naomi Wagura
CLASP



Nana Asamoah-Manu
IFC



Olakunle Owoye
IFC



Drew Corbyn
GOGLA



Quality Standards

Christopher Carlsen, Lighting Global Quality Assurance, ccarlsen@clasp.ngo

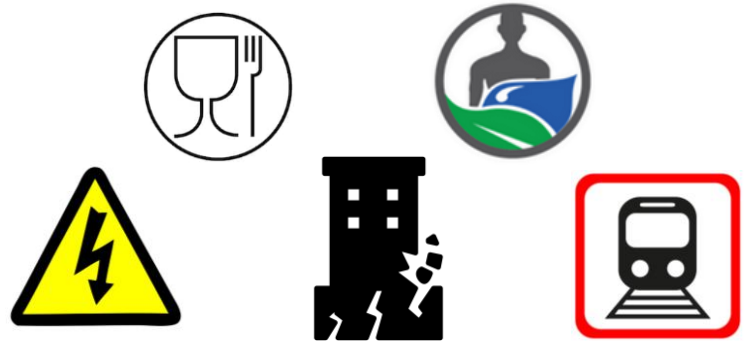
Standards: An Introduction



Standard: *Something set up and established by authority as a rule for the measure of quantity, weight, extent, value, or quality¹*

Why are standards important?

Imagine a world without standards...



Standards form a basis for mutual understanding, and facilitate **communication, measurement, commerce and manufacturing²**

References

1. Merriam-Webster Dictionary
2. www.cencenelec.eu

International Standardization

Now imagine a world without harmonized international standards...



International Standardization

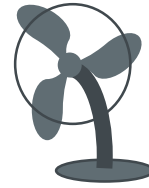


Harmonized international standards are necessary for our interconnected world



- PROTECT CONSUMERS
- Increase interoperability
- Increase regulatory consistency
- Remove technical barriers to trade
- Improve supply chains
- Stimulate innovation

International Standards for Off-grid Solar

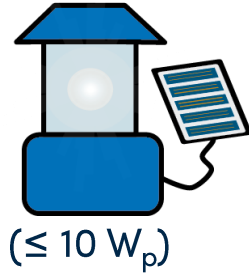


International Electrotechnical Commission

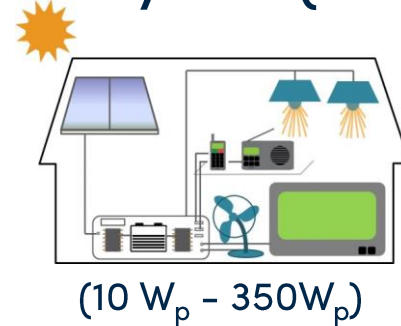
“The world’s leading organization for the preparation and publication of international standards for all electrical, electronic and related technologies.”

- IEC publications establish internationally-agreed terminology, test methods, safety requirements and technical specifications
- Forms basis for national and regional standardization
- Serves as reference when drafting international tenders and contracts
- **Consensus-based:** Close to 20,000 experts from industry, commerce, government, test and research labs, academia and consumer groups

Pico-PV Products



Solar Home System (SHS) Kits



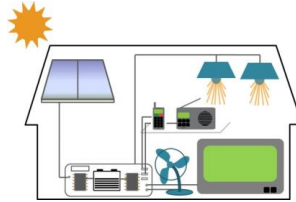
- Detailed test methods for measuring and evaluating product characteristics and performance
- Comprehensive system-level and component-level testing
- **DOES NOT** set minimum quality or performance requirements

Standards for Pico-PV & SHS Kits



LIGHTING  GLOBAL QUALITY STANDARDS
Catalyzing markets for modern off-grid energy

The de facto international standards for pico-PV and SHS kits

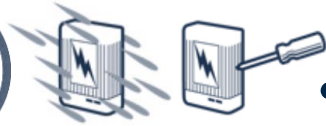


- Set a baseline level of **quality, durability, and truth-in-advertising** to protect consumers
- Non-prescriptive and technology neutral
- Conformance is evaluated based on results from **laboratory testing** according to IEC test methods (IEC TS 62257-9-5)
- Tests conducted at a **third-party, approved test centers** that are ISO 17025 accredited

Lighting Global Quality Standards



- Consumer-facing information
 - Truth-in-advertising
 - Performance labeling
 - Warranty



- Safety and durability
- Battery



- Workmanship
- Lumen maintenance
- Pay-as-you go (PAYG)



Lighting Global Standards to be Adopted by IEC



EXPECTED BY EARLY 2020



Streamlined standards adoption process

- Increased willingness to adopt IEC standard
- Organizations familiar with adoption of IEC standards

Increased awareness and interest in the standards

- Countries with existing national pico-PV standards
- Additional countries & regional bodies
- More development organizations & energy access programs

Harmonization of Pico-PV & SHS Kit Standards

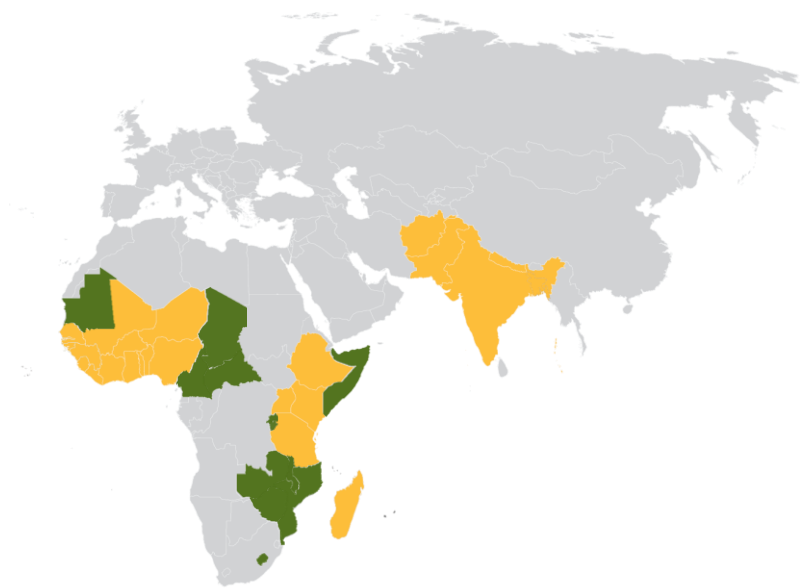


National governments and regional groups with large markets for pico-PV and SHS kits are pursuing quality standards aligned with Lighting Global QA

CURRENT STATUS



EXPECTED NEAR-TERM EXPANSION



Benefits of Pico-PV & SHS Kit Standards Harmonization



Reduce the prevalence of sub-standard products while fostering innovation and maintaining consistency across international markets.



CONSUMERS & MARKETS

- Increased market consistency
- Reduced market spoilage
- Increased sales and market growth
- Greater variety of high quality products available
- Reduced cost of doing business and product prices



STANDARDS AGENCIES, CUSTOMS & CONFORMITY ASSESSMENT PROGRAMS

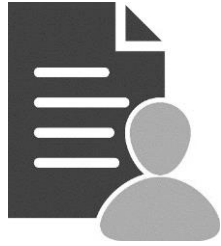
- Increased confidence in standards
- Minimal investment required
- Increased ease of standards adoption
- Simplified regulations



OTHER STAKEHOLDERS BENEFITTING FROM HARMONIZED STANDARDS

- Bulk procurers
- Development agencies
- Manufacturers
- Importers & Distributors
- Financial institutions
- Finance programs
- Investors

Resources for QA Practitioners



Lighting Global Quality Assurance Team

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qa@lightingglobal.org

- Remote technical & policy support
- Direct engagement with public & private sectors
- Capacity building activities



Lighting Global Website

www.lightingglobal.org

- Quality Standards
- Database of quality-verified products
- Documents: Tech notes, policy guidance, case studies & much more

**Q&A – Please send your
questions in the chat box
on the sidebar**



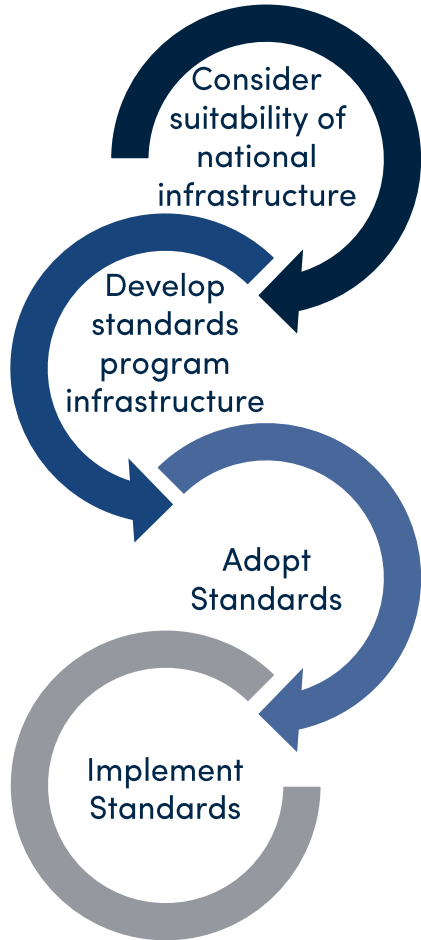
Standards Implementation

Naomi Wagura, CLASP, nwagura@clasp.ngo

Comprehensive standards adoption & implementation process



The Ideal Process



Governments should carefully consider the national market and sociopolitical situation. They can then prepare a well-suited standards program with a high likelihood of success.

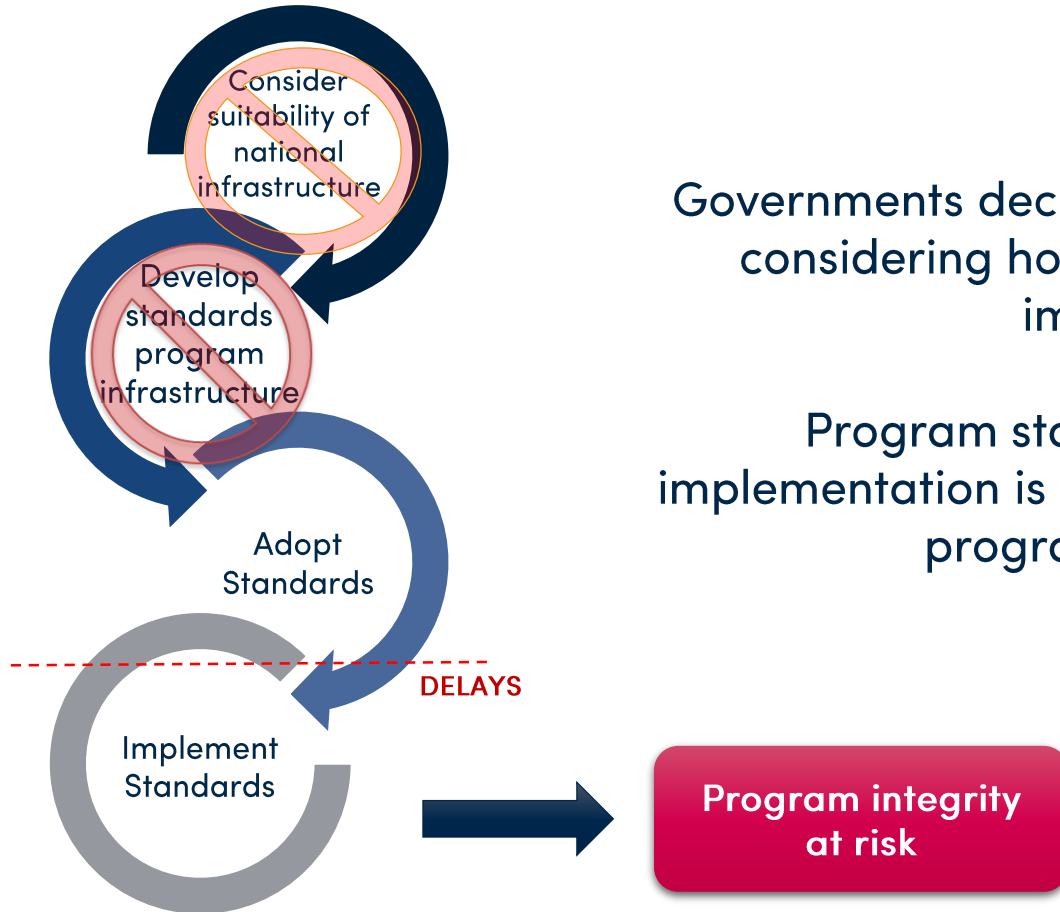


What Often Happens Instead...



Governments decide to adopt standards, without considering how or if they have capacity to implement them.

Program stakeholders are impacted, implementation is delayed, and the integrity of the program is compromised.



Considerations before standards implementation

- If introduced prematurely, standards can produce additional costs and market disruptions that may stifle market growth.
- Before introducing standards, consider:
 - Market readiness
 - Sociopolitical landscape
 - Availability of reliable & up to date data

Considerations before standards implementation – Market readiness

How mature is the market? Is technology ready to be regulated? Or could this raise market barriers?

- **Availability** – does the technology exist?
- **Awareness** – does the market know about the technology?
- **Accessibility** – is there easy access to the technology?
- **Affordability** – is the technology affordable?
- **Acceptance** – are form, fit and function of the technology acceptable?

Considerations before standards implementation – Sociopolitical landscape



Is government ready to regulate ? Is sector ready for regulation?

Are other interventions required to get there?

- **Political will** – is there high level political support?
- **Institutional, financial & human resources** – sufficient program resources?
- **Legislative frameworks** – existing programs or legislation to build on or use?
- **Physical / facilities resources** – access to quality test labs, monitoring tools?
- **Well-organized consumer / advocacy groups** – are consumers represented?
- **Thriving manufacturing sector / distributors / retailers** – trade association to represent voice of small / all manufacturers in policy development?
- **Regional interventions** – opportunities to align with neighbor markets and approaches?

Considerations before standards implementation – reliable & up to date data



Policy decisions and implementation approaches should be based on reliable and up to date market data

- Current quality & performance levels and forecasted trends
- Technology available on the market
- Product characteristics of domestic and imported products



Product Sampling



Product Testing

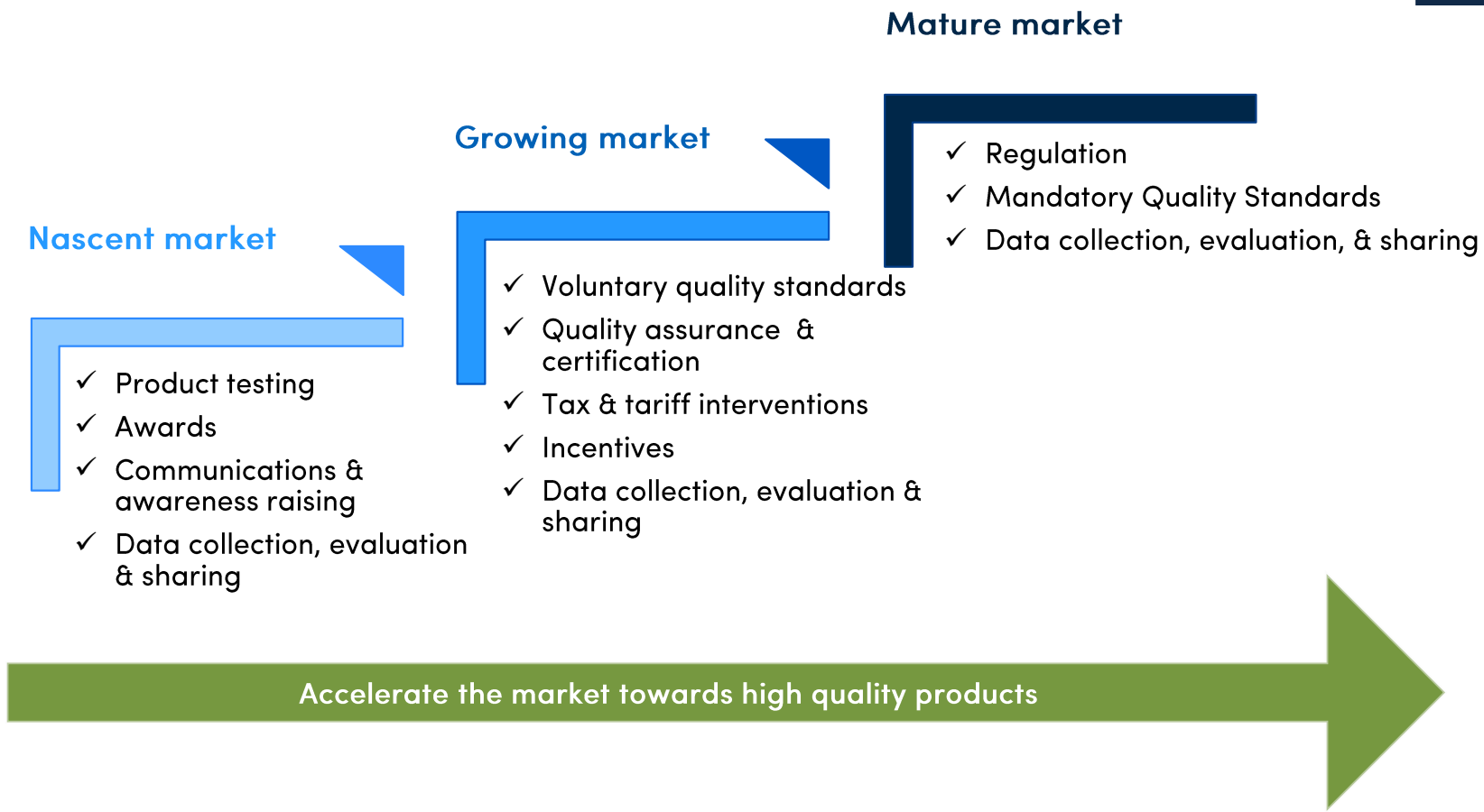


Data Cataloguing



Data Sharing

Different standards implementation interventions



Intra-government collaboration on standards implementation



It is important for the government institutions involved in implementation and compliance to work together

Responsibility Area	Potential Authorities
Strategy & Policy	Ministry
Standards Development	Standards Bureau
Regulations or Program Owner	Ministry, Energy Agency, Standards Bureau
Promotion, Incentives, Awards	Energy agency, implementing bodies, donor agencies, national revenue authority, other organisations
Communications	Ministry, Standards Bureau, Energy Agency, trade or consumer associations
Compliance & Enforcement	Energy Agency, Standards Bureau, customs body, other enforcement agency, etc
Testing & Research Centre	National / regional test labs or universities - with sustainable business plan

Compliance is critical to program success

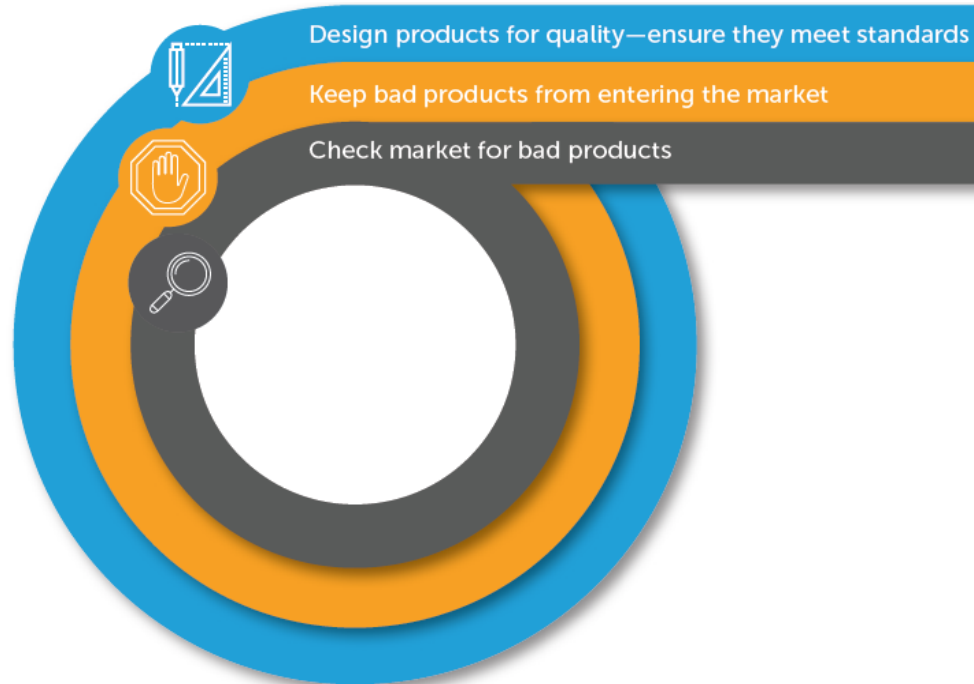
Compliance policies safeguard energy savings and other benefits of quality standards by ensuring products meet the requirements.

“In most markets...

- 20% of the regulated population will comply with any regulation
- 5% will attempt to evade it, and
- the remaining 75% will comply as long as they think that the 5% will be caught and punished.”

- Zaelke 2005

Three lines of defense against poor quality products



Examples of compliance best-practice

- Mutual recognition of **test reports from accredited laboratories**
 For pico-PV and SHS products, these are laboratories accredited to test according to the latest version of IEC 62257-9-5
 - Quicker to place products on multiple markets - One test report, multiple markets

- Recognition of **internationally-recognized certifications**
 For pico-PV and SHS products, LG Quality Assurance program certifies products that meet the Lighting Global (soon-to-be IEC) quality standards
 - Cost and time savings for regulators – regulators can check if the certification is genuine by simply checking on the LG website







- **Pre-export Verification of Conformity (PVoC)**
 Conformity assessment at the point of export – sub-contracted to a third party.
 - Reduced cost and time burden on national regulator
 - Faster entry into markets
 - Examples of countries with PVoC – Kenya & Ethiopia

Lighting Global Test Laboratory Network

Test Methods

- **Quality Test Method (QTM)** is the full test method.
- **Initial Screening Method (ISM)**, an abbreviated version of the QTM
- **Market Check Method (MCM)** is used as a surveillance mechanism

Test Laboratory Network

 SCHATZ ENERGY RESEARCH CENTER	All Tests	
 Fraunhofer ISE	SHS Tests	 Pico Tests
 UNIVERSITY OF NAIROBI	Pico ISM & MCM	

**Q&A – Please send your
questions in the chat box
on the sidebar**

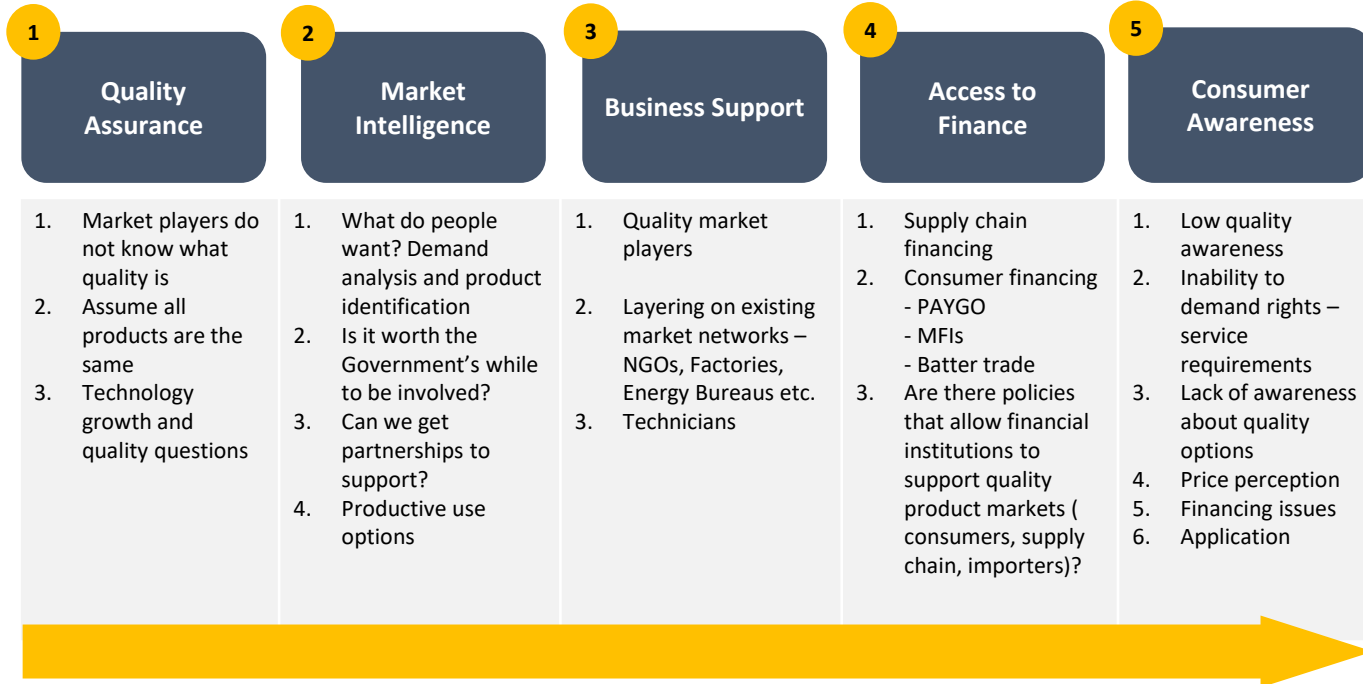


Standards Adoption and Implementation in Kenya

Nana Assamoah-Manu , IFC, NAssamoahmanu@ifc.org

Challenges faced in creating quality product markets?

Markets for quality products are often hindered by number of prevailing factors e.g....



How can governments support the quality product market?



The policy and awareness environment created by the Government goes a long way to support market development

What problems are we trying to solve?

- ✗ Influx of low quality products
- ✗ Market spoilage due to low quality products
- ✗ Lack of clarity with import process, leading to delays & uncertainty
- ✗ Lack of competition, race to the bottom pricing, further support low quality

The opportunity:

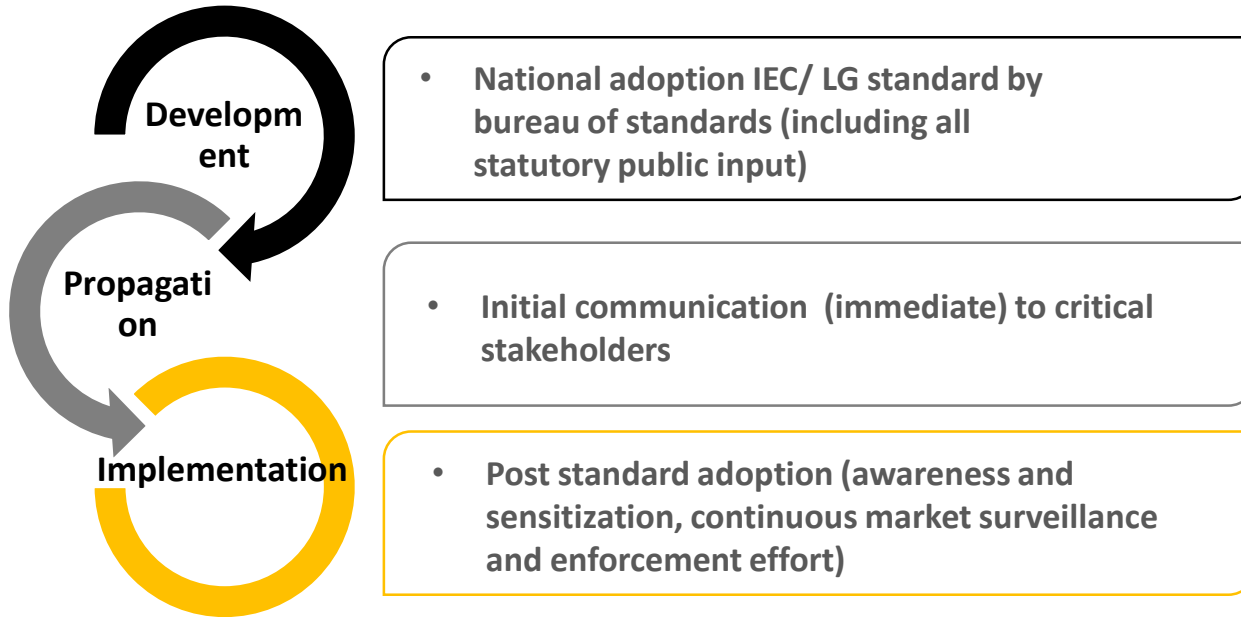
- ✓ Solar provides electricity access for unserved populations
- ✓ Quick deployment of quality solar PV products which are cost-competitive
- ✓ Increased private sector interest

Typical government/ policy interventions

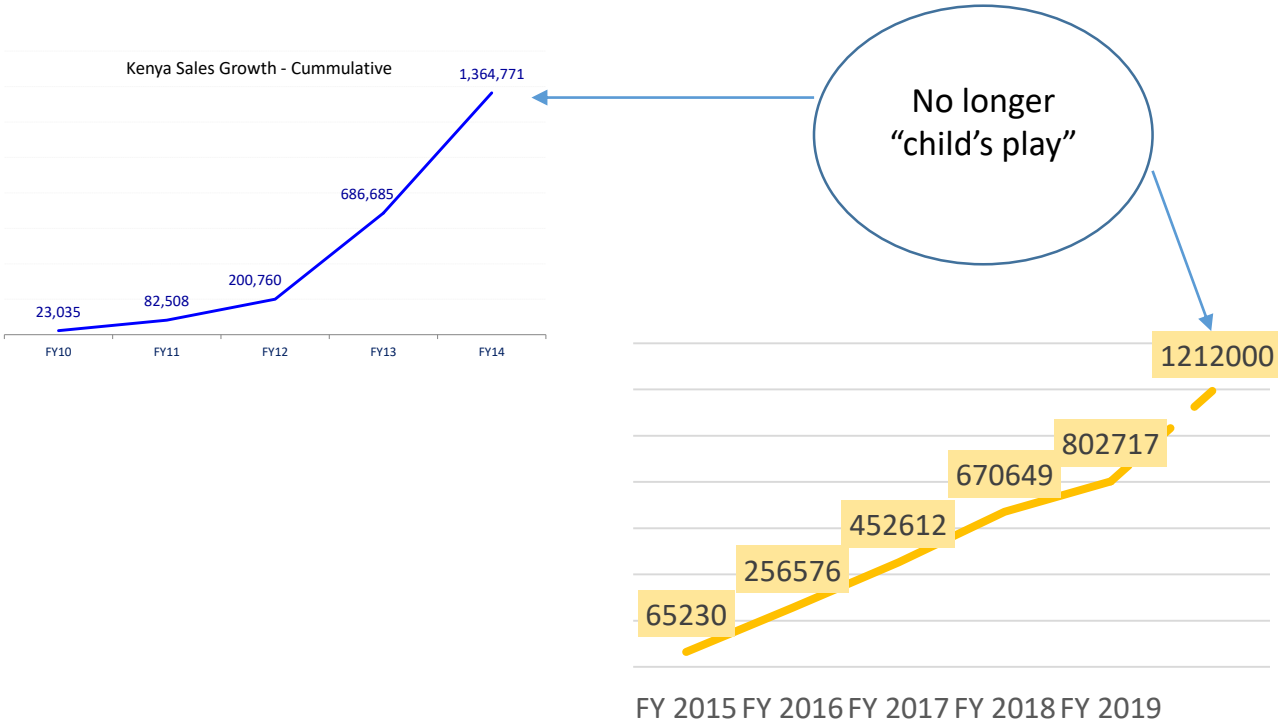
- ✓ National Technical Standards : Promulgation
- ✓ Enforcement: PVOC, Market surveillance
- ✓ Devolved Government propagation of solar
- ✓ Regular engagement with market stakeholders (Business Association, Consumers , Revenue authorities)
- ✓ Technical training and certification requirements in the supply chain
- ✓ Tax incentives
- ✓ Incentives to motivate financial institution involvement
- ✓ Specific government projects to propagate quality products in target regions
- ✓ National Electrification strategies that promote renewables, energy mix and quality

STANDARDS ADOPTION – CRITICAL STEPS

It is essential to complete **all stages** for effective standards adoption



Lessons from Other Markets - Kenya



Kenya experience

ADOPTION

Kenya adopted the IEC-6225-9-7 in 2015 and upgraded in 2017

COLLABORATION

Collaborative effort between Kenya Bureau of Standards, Industry stakeholders (Technical committee) and IFC/ Lighting Africa, Kenya & Lighting Global.

DEDICATION

It took a period of over 1 year from initial consultations, TC meetings, public engagements, KEBS Management clearances to final gazettelement.

EDUCATION

After KS-2542 was now law, we began a public awareness campaign. The country was split into 3 county centers and the standards was introduced to County Energy Ministers & Officers, importers, Energy NGOs and other stakeholders. Also.....

Kenya experience

- PVOC training and regular engagement
- Channel engagements, MFIS, Retail, Technicians, Corporates, DFIs, Bulk buyers, Energy projects (K-osap) etc.
- Equipped and supported a lab (ISO 17025 certified) for market check testing

Challenges & Mitigation

Challenge	Mitigation
Content unclear e.g. Threshold (2014), AVM (2016) etc.	Experts brought in to answer questions till resolved
Public awareness of standards limited	Post standards awareness strategy developed
PVOC inconsistent application	Training for PVOC companies

What could we have done better?



1. Surveillance readiness

Market surveillance & Technical capacity (personnel & lab developed ahead of gazettelement of the standards)



2. Budget

Budgeting for enforcement: market check test, retail surveillance



3. Channel capacity

Strengthening capacity for enforcement: PVOC, Customs etc.

Q&A – Please send your questions in the chat box on the sidebar



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Participatory approach to standards adoption in Nigeria

Olakunle Owoeye , IFC, oowoeye@ifc.org

STANDARDS ADOPTION FOR PICO PV PRODUCTS AND SOLAR HOME SYSTEM KITS IN NIGERIA

Process, Best Practice & Lesson Learned



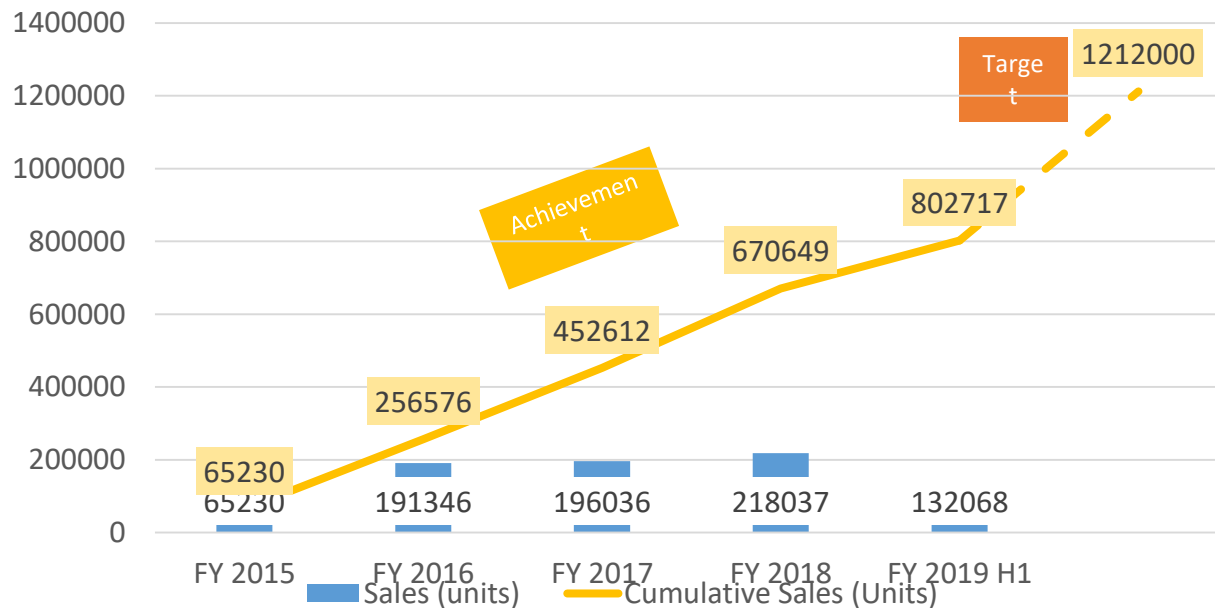
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Lighting Africa (Nigeria)

START DATE | August 2014
 END DATE | June 2020

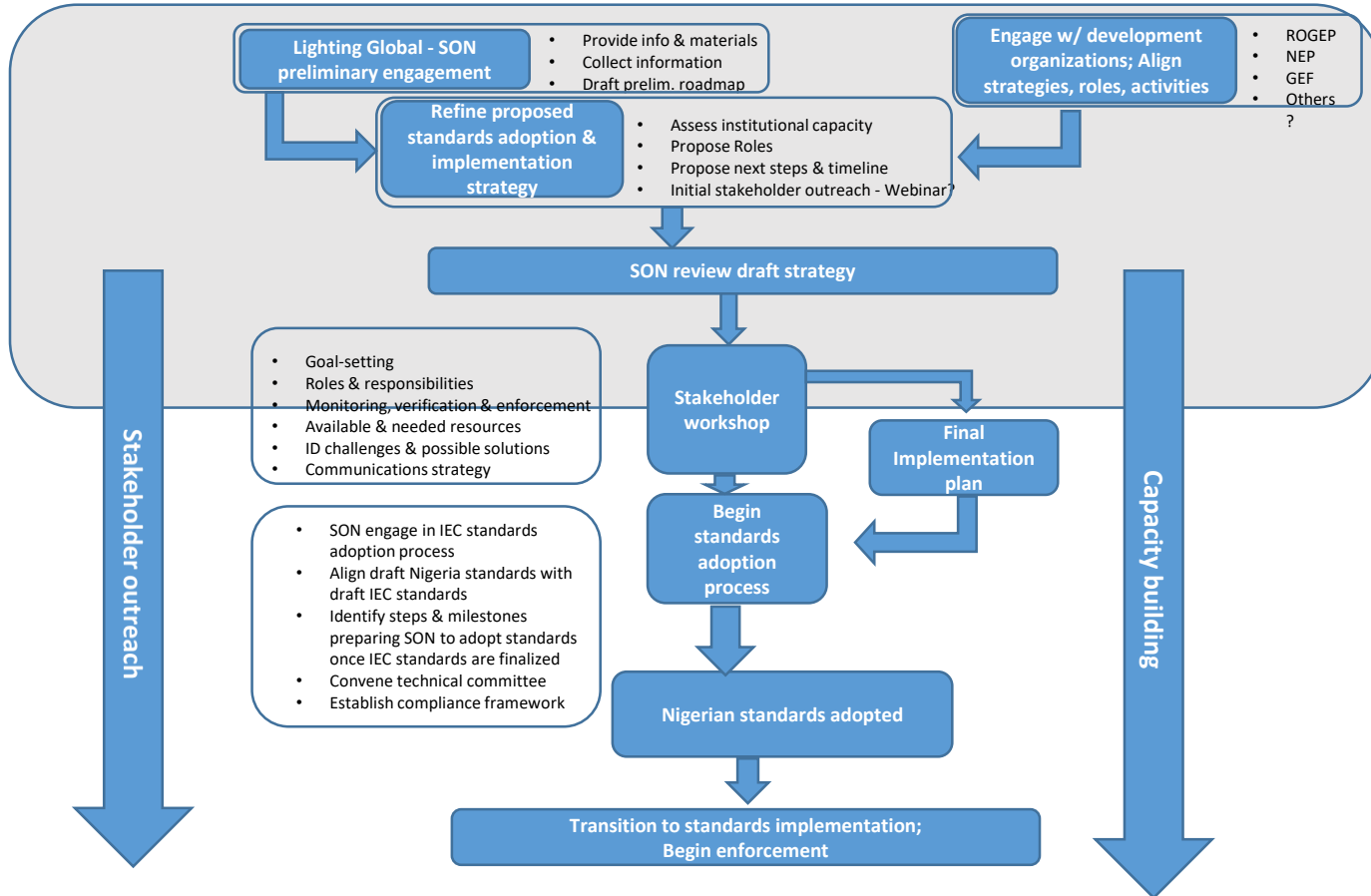


Quality Assurance - Overview

- Trained about 340 technicians to provide after-sales service for out-of-warranty products. This is ongoing.
- Plans at an advanced stage for the adoption of the IEC/Lighting Global standards by SON.
- Lighting Global (LG) Quality Assurance team is leading discussions with ECOWAS and the Standards Organization of Nigeria (SON) on the harmonization of the standards adopted by ECOWAS with the IEC/LG standards.
- Discussing the provision of support to SON to set up a laboratory to conduct market check test in-country
- Plan to support capacity building for SON employees to enable the quality laboratory conduct market check tests in-country



Roadmap to Standard Adoption in Nigeria



Standard Adoption Implementation Milestone

- SON management to appoint Technical Secretary
- Establishment of SON internal working group on the standard adoption process
- LA Signing of MoU with SON
- Standard draft review by stakeholders
- Set up of Technical Committee members
- Technical committee meeting on standards adoption
- Corrective measures on draft standards based on TC members comment
- Standard submission to standard council for standards adoption approval
- Standard publication and enforcement

Challenges & Mitigation

Activity	Challenge	Mitigation
Harmonized standards	<ul style="list-style-type: none"> - Need for harmonized standard in ECOWAS region - ECOWAS cannot mandate harmonized IEC standards for its members but can recommend 	<ul style="list-style-type: none"> - ECOSHAM has agreed to recommend IEC 62257-13-1 and IEC 62257-9-5 test protocols for its members for adoption
Peculiarity of public sector	<ul style="list-style-type: none"> - Bureaucracy 	<ul style="list-style-type: none"> - Top down approach - Consistent engagement - Binding documents
Resources and expectation	<ul style="list-style-type: none"> - Funding budget expectation - Resource needs gap 	<ul style="list-style-type: none"> - MoU on budget and available resource - Clarity on project scope - Program/project timeline
Stakeholders engagement	<ul style="list-style-type: none"> - Identifying relevant stakeholder at different stage of the adoption process - Conflict on stakeholders roles and responsibilities - Communication gap between stakeholders i.e. development organisation programs 	<ul style="list-style-type: none"> - Inclusion of traders association in standard draft review phase by stakeholders - Openness on what is on-going with different development organizations - Incremental approach in support rather than duplicating effort
Post standards adoption	<ul style="list-style-type: none"> - Procrastination on enforcement plan - Delay in lab accreditation for MCM test. 	<ul style="list-style-type: none"> - Proper implementation plan from inception, it can be reviewed at stakeholders workshop

VERIFIABLE IMPACT OF QUALITY ASSURANCE

- **Value for money:** Reduced lifecycle cost of energy service, many consumers are still using 3 year old QV solar lighting
- **Consistent product quality reduces market spoilage:** Effectively make sub-standard products less appealing to supply chain actors. Some market players dealing in non quality verified are now looking at engaging in quality verified products
- **Willingness to buy increases with consumer confidence:** Consumers have greater confidence in their investment with products that have been tested – and continue to be tested, evident from uptake by MFBs
- **Bulk procurers & Development agencies:** simplified bid evaluation i.e. REA/NEP program in Nigeria, choices of product etc.
- Increased confidence in standards that has proven to be effective, regularly updated and functional in other countries and regions.

**Q&A – Please send your
questions in the chat box
on the sidebar**



Role of consumer education and awareness raising

Drew Corbyn, Program Manager Consumer Protection & Technology,
GOGLA

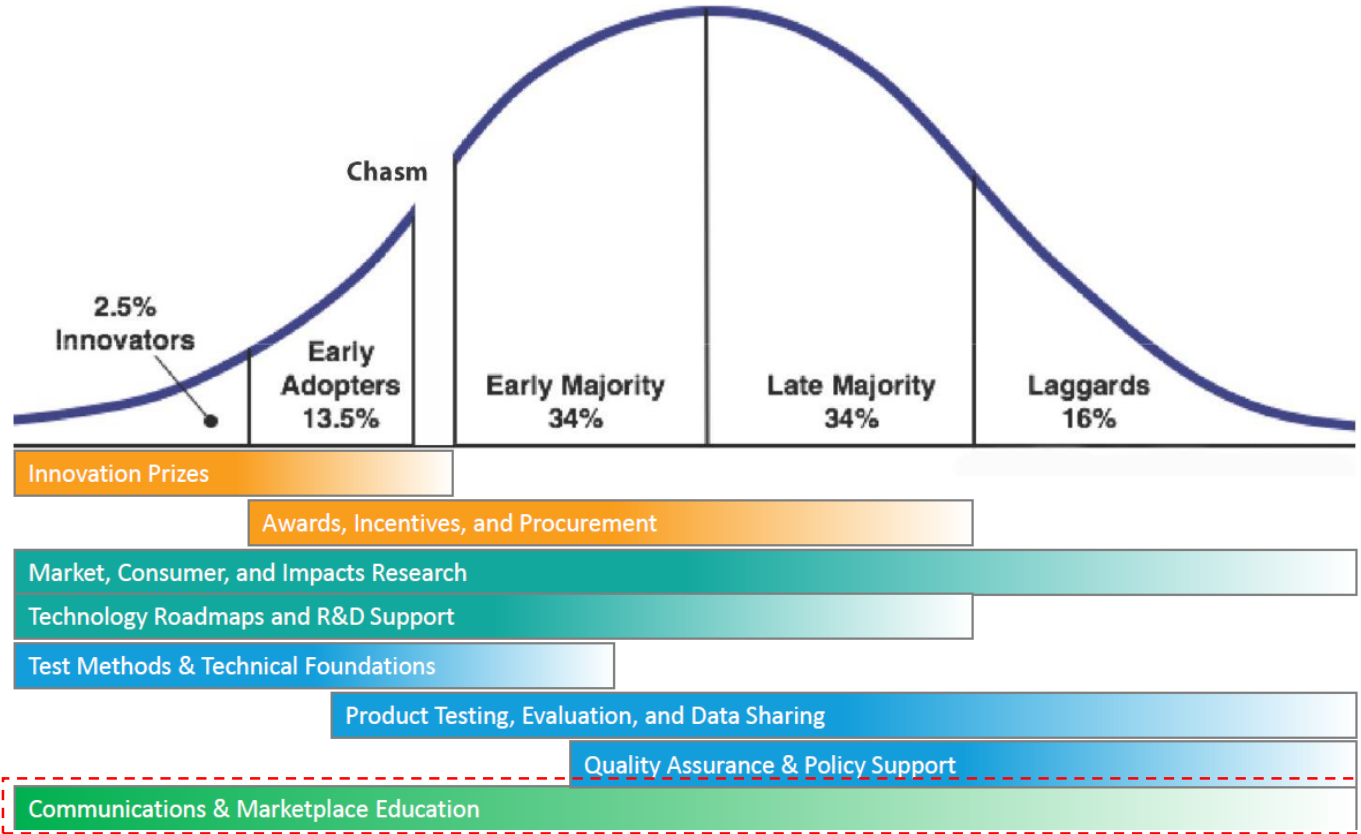
Nascent market

- Low awareness of:
 - Benefits (bright light, lower energy costs, etc.)
 - Brands
 - Warranty
 - Flexible payment options (PAYGo).
 - Where to buy quality products.
- Lack of trust in technology – “Solar does not work!”

Mature market

- High awareness of product range, warranty, payment options, retailers, etc.
- Strong brand recognition – Trusted brands and “lifetime customers”.
- Durability is the number one reason consumers buy products (second is affordability).

Consumer education & awareness raising is needed to kick-start a market



Key success factors:

- Companies must be ready and able to meet the demand. Coordination and planning is key!
- Timing is key. Activate the market when consumers have cash (e.g. according to seasonality of economy)

Consumer awareness channels



Social Marketing & Advocacy

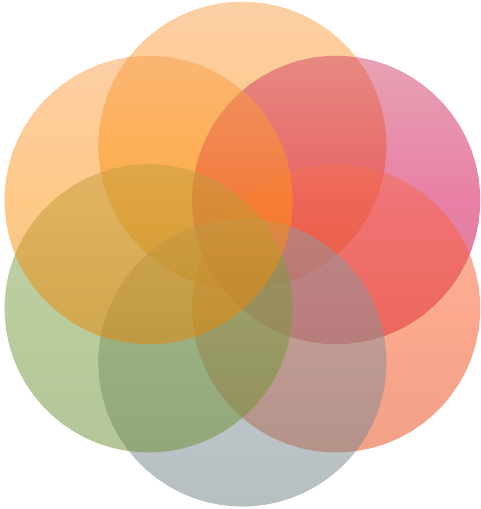
Involving trend setters & influencers - Traditional and religious leaders, headteachers, health workers, etc.

Person-to-Person

Word of mouth, roadshows.

Radio – Jingles, Commercials, talk shows.

TV – Commercials, product placement in shows.



Media PR – PR stories, Write ups, news coverage.

Out-of-home – Posters, Backdrops, Bumper stickers, Bus branding, wall branding, suburb signs, Display A-boards, Calendars, t-shirts.

Off-grid solar market development programs – notably Lighting Global and EnDev – have invested in consumer awareness.

Campaigns have been done in Kenya, Tanzania, Ghana, Malawi, India and other places.

Consumer education and awareness raising – Who does? Who pays?

- Public sector investment in consumer awareness can be a good way to kick-start the market. Activating channels through government institutions also shown to be effective.
- However, companies are best placed to inform consumers about their products. Advertising is part of the long-term competitive landscape.
- Public-private-development partner cooperation and coordination are essential for an effective consumer awareness campaign.



Share the light this Christmas

This Christmas, give your friends and family at home a gift that will shine a light on their lives day in, day out, year in, year out. A solar-powered lamp is an affordable lighting solution that provides a clean and healthy light source, be it for families or businesses. Choose a lamp from one of our recommended suppliers and give them the gift of light this Christmas.

 Sunlite C2	 Alpha S270	 PHILIPS Solar Home Lighting System	 Teng Solar Senda	 Ecoflow Power Through 5
 Ecoflow Power Through 5	 Ecoflow Power Through 5	 Ecoflow Power Through 5	 Ecoflow Power Through 5	 Ecoflow Power Through 5

SONGAMBELE **Lighting Africa** **AN INNOVATION OF EIPC**

Quality solar systems brought to you by

Promoting quality – how to talk to consumers about quality?

Challenge:

- Lighting Global is not a consumer-facing label. National standards labels may be used to help consumers identify quality, though marks may not be trusted and it is hard to enforce against forgery.

Solution:

- Promote brands with quality-verified products, and retailers that sell quality-verified products.
- Inform consumers to seek warranties.
- Push the good, hush the bad. Avoid spooking consumers with the message “don’t buy bad quality that does not work” – this can undermine trust in the technology.
- Educate importers and distributors of the Lighting Global certification, relevant national standard requirements, import procedures, etc prior to enforcement.



**Q&A – Please send your
questions in the chat box
on the sidebar**

What's next:



- 1 We will email you the webinar recording and related materials after this.
- 2 The next webinar in this series is titled 'Pathways to Integrated Electrification' hosted by the SEforALL.
 - English: Tuesday, September 17th at 13:00 CET
 - French: Wednesday, September 18th at 13:00 CET
- 3 Please take a moment to respond to the survey questions after exiting the webinar



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