Alliance for Rural Electrification

Welcome to the EPC and Developers Circle

Chair: Fabien Leterrier - Head of Mini-grids Design and Construction – ENGIE Energy Access

Coordinator: Julia von Franz - Policy & Advocacy Officer - Alliance for Rural Electrification

Renewable Energy House – Brussels

19 September 2024

Agenda

14:00-18:00 CEST	Room 103, Renewable Energy House, Brussels, Belgium
14:00 – 14:10	Opening - Julia von Franz (Circle Coordinator)
14:10 – 14:30	Member introduction round
14:30 - 14:40	EPC & Developer Circle – Fabien Leterrier (Circle Chair)
14.40-15.45	Brainstorming workshop I
15.45-16.15	Break
16:15 – 16:25	The Mini-grid Factsheet – Elodie Hanff (ADA)
16:25 – 16:35	Finance Readiness Support & Finance Access Advisory – Marie Strauss (GET.invest)
16:35 – 16:45	The Circularity Guidelines - Julia von Franz (ARE)
16:45 – 18:00	Brainstorming workshop II
18:00 – 18:10	ARE Member family photo
18:10	Reception - Electrify the Night!

Opening

Purpose

- Reach solutions together

Objectives

- Identify sectoral challenges
- Share best practices
- Fill in an Action Plan
- Define ARE's supportive role
- Develop a call to action

Set-up

- Circle set-up
- Duration
- Chair rotation

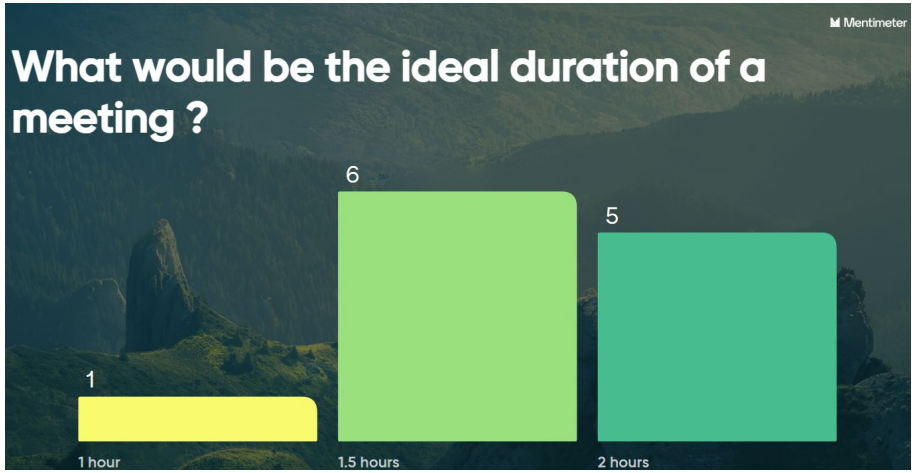
Chatham House Rules:

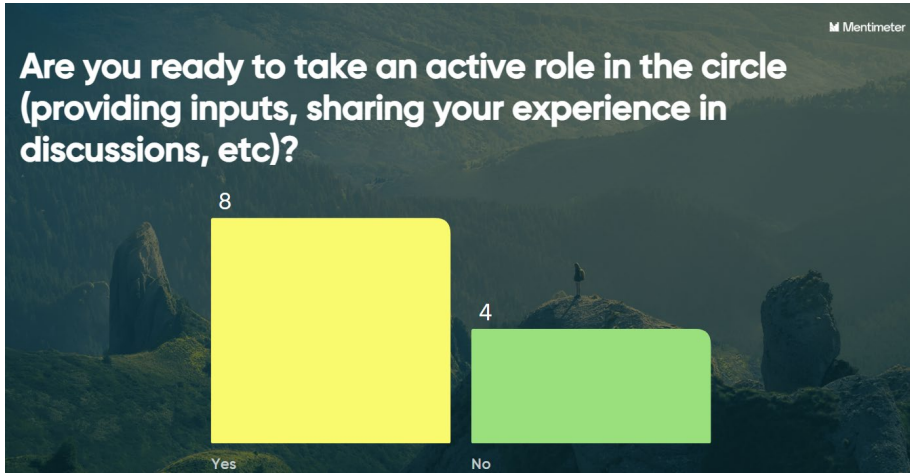
"Participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed..."

Let's vote on the circle set-up!

Join at menti.com | use code 4338 1641

Current survey – results



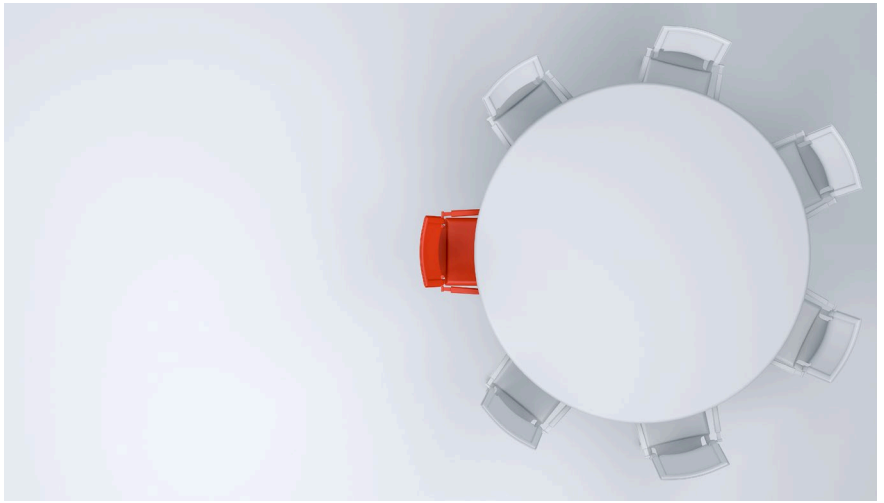


Let's vote on the EPC co-chair

Join at menti.com | use code 1823 1388

Member Introduction Round

1. **Name**
2. **Role**
3. **Organisation**
4. **Sector (EPC/developer)**
5. **Project sizes**
6. **Geographical activity**



Nice to meet you…!

Brainstorming workshop I

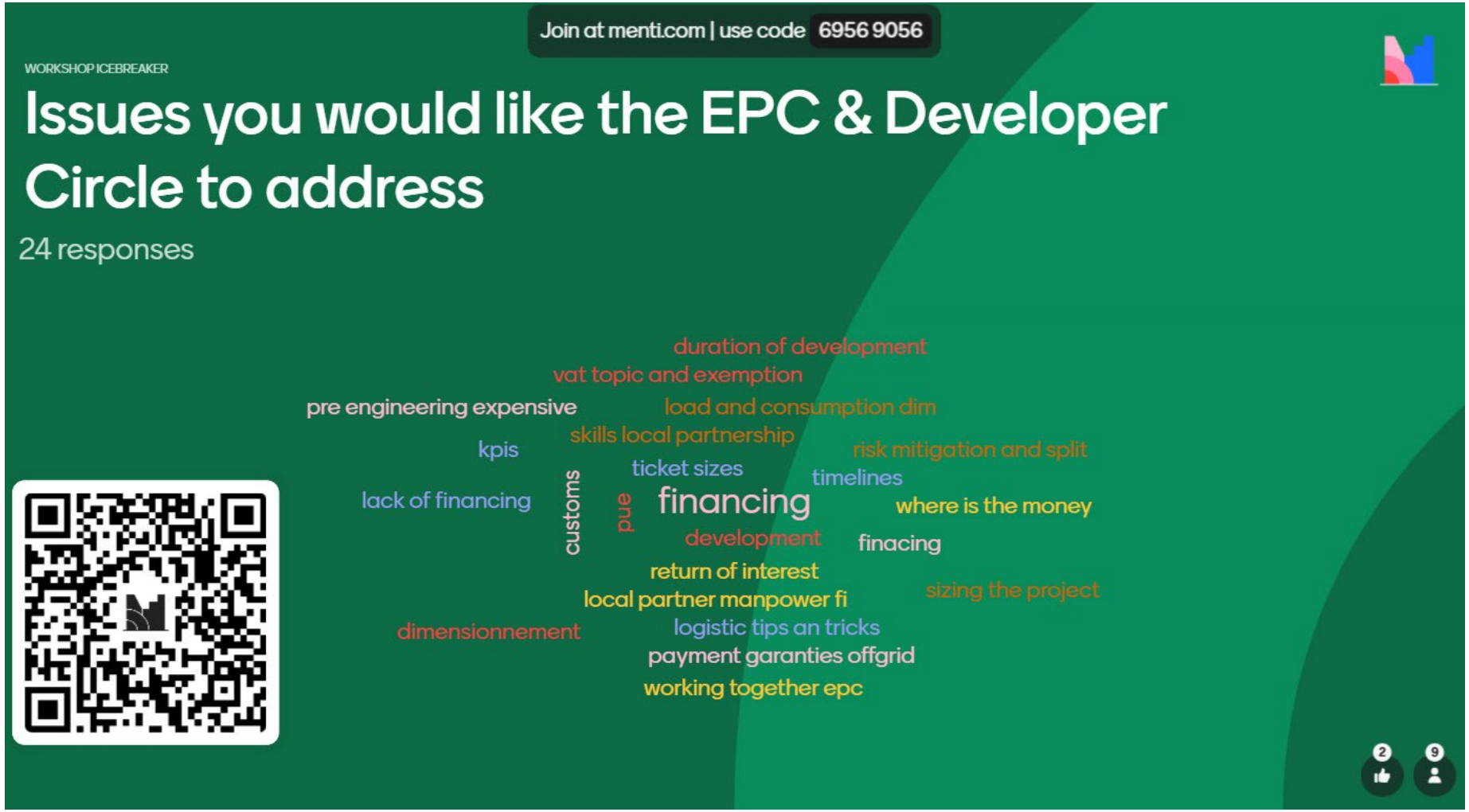
Defining action points

ComAp

Brainstorming cloud

Join at menti.com | use code 4757 7546

Brainstorming – current results



Coffee Break

15.45-16.15

The Mini-grid Factsheet

Appui au développement autonome

Marina Abboud
Responsable - Programmes
ADA - Appui au Développement Autonome

ADA – Appui au développement autonome

Expert en finance inclusive
et catalyseur de
partenariats et d’innovation

Feasibility survey for a « Factsheet for solar mini-grid stakeholders »

A consultancy carried by:

INENSUS

With the support from:

Alliance for Rural Electrification

Overview

- **Rationale**:
  - Absence of certain strategic data - financial, social, environmental - related to the MG sector in the public domain
  - More data needed to provide transparency and support decision-making in a sector heavily reliant on concessional financing.

- **Assumption**:
  - A publicly available factsheet with detailed project data and KPIs could help to mobilize finance by increasing transparency, analyzing benchmarks, reducing perceived risks, and making it easier for investors to make informed decisions.

- **General objective of the consultancy**:
  - Assess the relevance of a factsheet, serving as a user-friendly tool for monitoring and enhancing the financial and social performance of mini-grid projects by utilizing data voluntarily provided by actors in the mini-grid sector.
  - Test an initial version of the tool with a sample of operators and financiers, using key indicators to validate assumptions

Implementation plan

From September 2024 to January 2025

Contact:
m.abboud@ada-microfinance.lu
e.hanff@ada-microfinance.lu

Finance Readiness Support & Finance Access Advisory

Ms. Marie Strauss
Advisor
GET.invest

GET.INVEST SERVICES

Finance Access Advisory

Advisory support to project developers and companies towards bankability via the GET.invest Finance Catalyst and the GET.invest Finance Readiness Support.

Finance Systems Advisory

Working with domestic financiers to mobilise local currency finance.

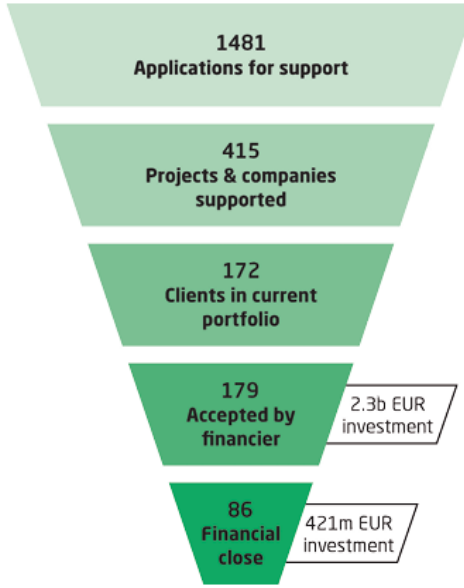
Mobilisation

Events and cooperation with industry associations for outreach and mobilisation.

Market and funding information

Investment-related market information, including the database of financial instrument data.

GET.INVEST PROJECT PIPELINE, 2016 - 01/2024



MARIE STRAUSS
Advisor

GET.invest
Mobilising Renewable Energy Investments

GET.invest Finance Access Advisory

ARE Industry Dialogues 2024

GET.invest is co-funded by

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Norway

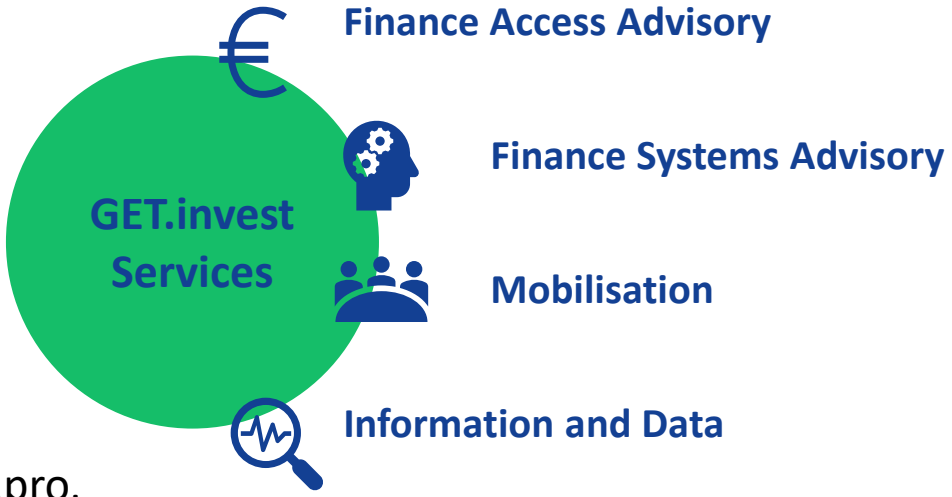
Ministry of Foreign Affairs of the Netherlands

Sweden
Sverige

Austrian Development Cooperation

GET.invest: Overview

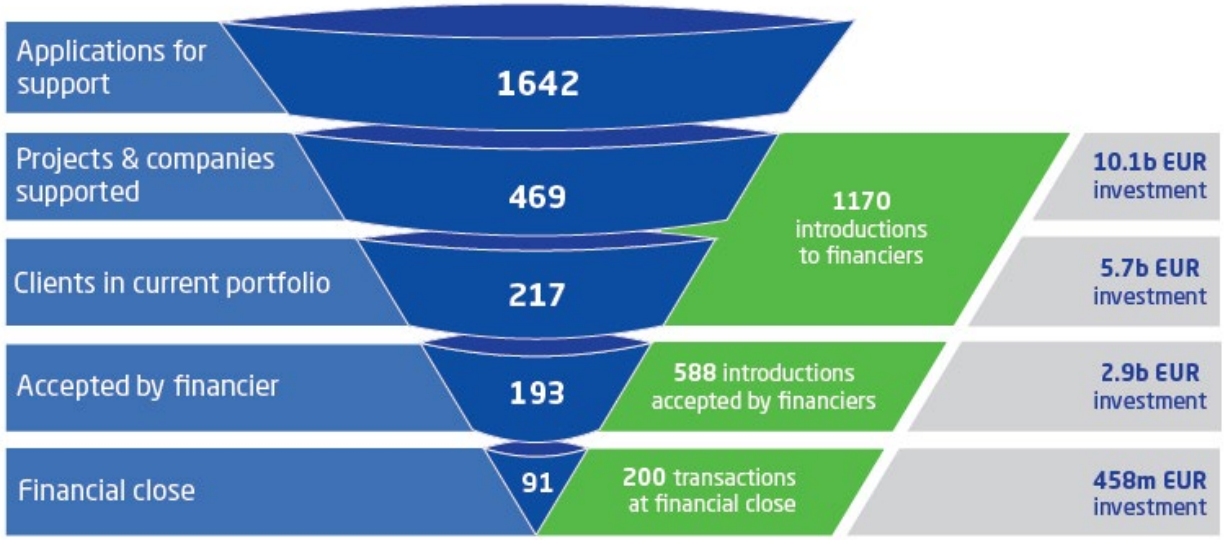
- **Leading European** programme **mobilising investment** in renewable energy, **building a pipeline** of investment-ready projects
- **Team Europe One Stop Shop** for Green Energy Investments
- **Supports all relevant delivery models**, incl. on- and off-grid electricity, clean cooking, productive use
- **Broad partner network** incl. financiers and associations
- **Active in Sub-Sahara Africa**, the **Caribbean** & the **Pacific**
- Implemented by **GIZ**, hosted on the multi-donor platform GET.pro, and co-funded by the **European Union, Germany, Norway, the Netherlands, Sweden, and Austria**.



GET.invest Finance Access Advisory

A **flexible, on-demand** offering to **prepare projects and companies for financing**, and **connect them with suitable financiers**

- Simple application process via GET.invest website, open year-round
- 9 specialised advisory teams for 1:1 support
- Tailored to company needs, incl. business development support, investment strategy, structuring, finance access, transaction and post-investment support
- Builds pipeline for financiers, accelerates investment



GET.invest and predecessor programme (2016 - 06/2024)

- The investment volumes at 'Accepted by Financier' stage are labelled 'projected', to reflect the uncertainty whether these deals will materialize.
- The investment volumes at 'Financial Close stage are labelled 'expected', to reflect the increased likelihood of project implementation.

GET.invest Finance Access Advisory: *Our Advisory Facilities*

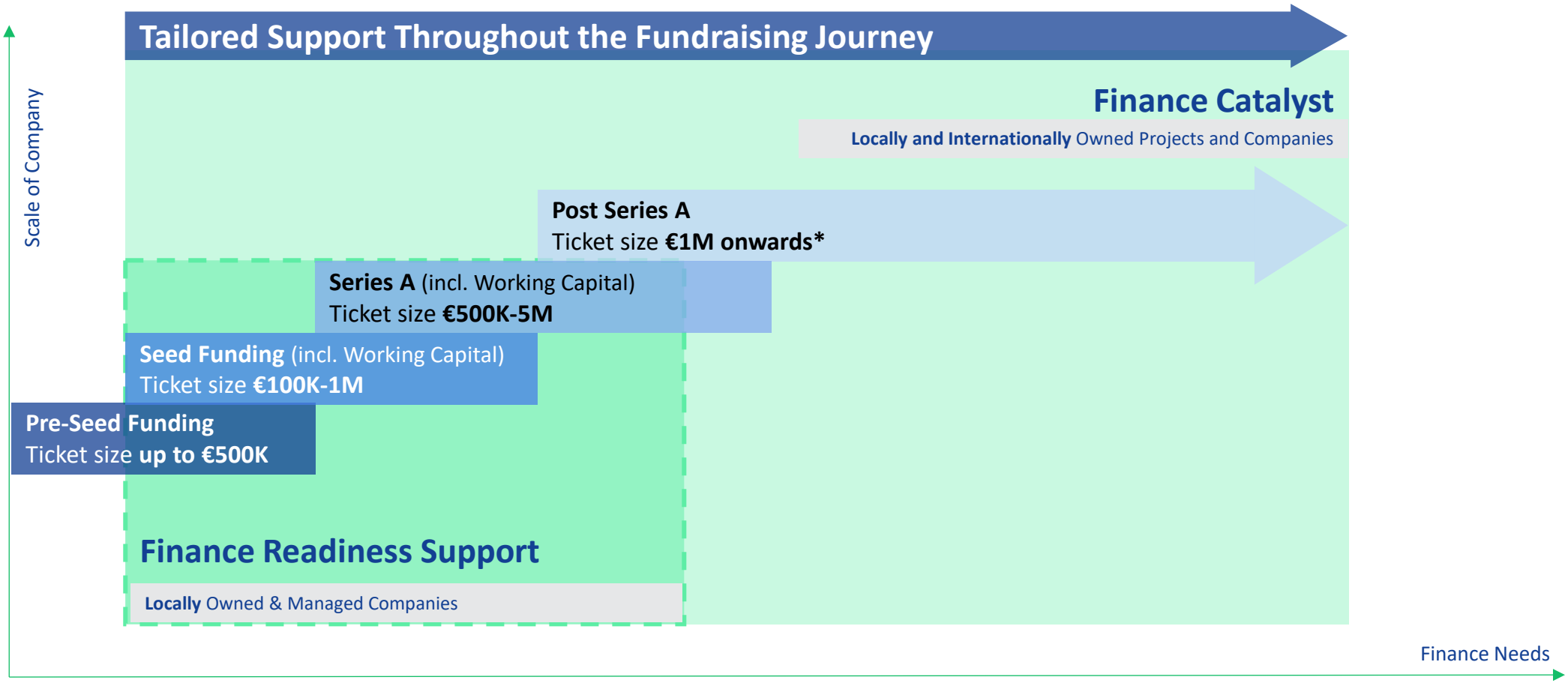
GET.invest Finance Catalyst

- Bespoke, “honest broker” advisory support to later-stage clean energy projects and companies
- A seven-year track record across countries, market segments and ticket sizes
- Covers improving business case, financial structuring, finding the right finance, negotiations
- 30+ expert advisors for 1:1 support

GET.invest Finance Readiness Support

- Customised, long term and deep-dive business development and access to finance advisory to grow and scale locally owned and managed companies
- 50+ expert advisors from eight renowned advisory firms for 1:1 support:

GET.invest Finance Access Advisory



*Ticket size segmentation referenced from GDC research: Last mile distribution capital continuum

GET.invest Finance Access Advisory:
Our Service Portfolio

GET.invest
Mobilising Renewable Energy Investments

Core Services

Business Development Support	Investment Strategy Support	Structuring Support	Finance Access Support	Transaction Support	Post-Investment Support
Deep dive advisory on Strategy, Financial, Operational & Human Capital Management, KPI & Business Metrics, Digitalisation & Data…	General guidance on the necessary steps of project/business development, investment roadmap…	Advisory on essential aspects of business & financial model	Identifying appropriate financing options, linkage to financiers, aligning project documentation	Assistance with contractual negotiations, i.e. term sheets, contractual agreements, fulfilment of CP	Support during crises and financial distress, funding disbursement support, debt restructuring, M&A…

Specialised Services

Financial Modelling Services	Project Documentation Development	Legal Services	Credit Risk Management
Investment-grade, tailored financial modelling support	Technical, investment-grade studies	Short- and long-term, professional legal advice to unlock investment	End-to-end support on CRM practices, systems and tools

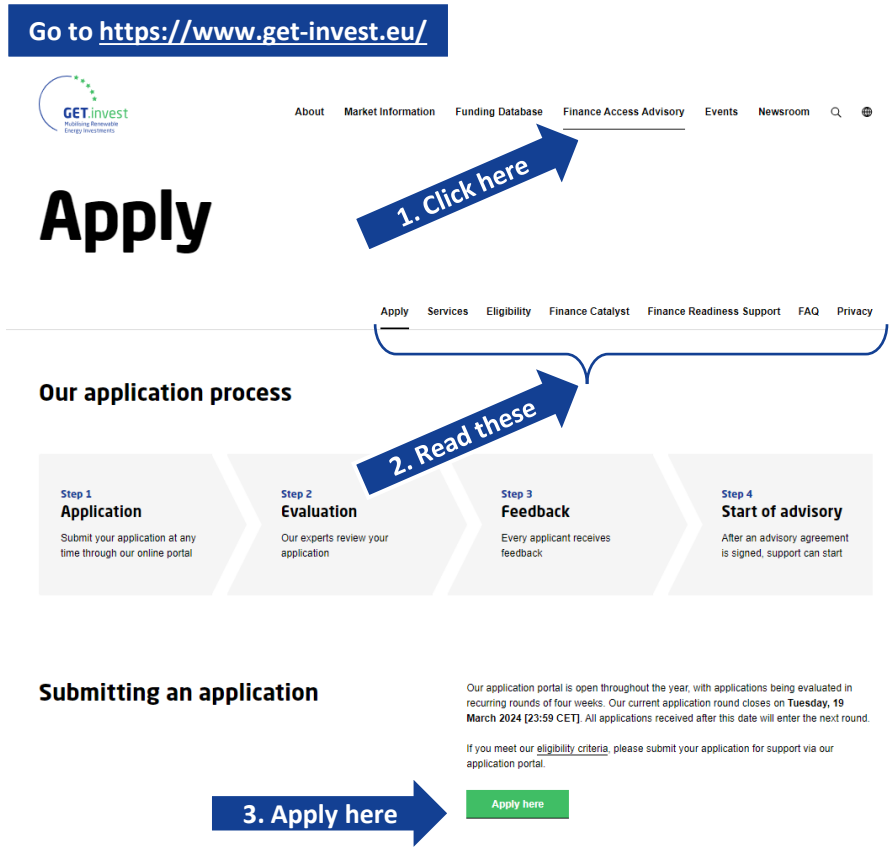
Applying for Support

When to apply? Any time! Applications are accepted on a rolling basis.

Where to apply? On the GET.invest Website at: www.get-invest.eu/finance-access-advisory

Who can apply? Project developers and post-revenue companies working in the clean energy sector in sub-Saharan Africa, the Caribbean and the Pacific region are eligible*. Further details available here.

*This does not guarantee acceptance.



Thank You for Your Attention!

MARIE STRAUSS
Advisor, GET.invest Finance Access Advisory

E-mail: marie.strauss@get-invest.eu

www.get-invest.eu @GET_invest @GET.invest

GET.invest is co-funded by

The Circularity Guidelines

Ms. Julia von Franz
Policy & Advocacy Officer
Alliance for Rural Electrification

Alliance for Rural Electrification

Circularity Guidelines
End-of-life
battery manage

Batteries are used in many applications from cars to de
such as clean energy mini-grids. As the proliferatio
solutions inevitably increases to address the growing
electrify the more than 675 million people lacking acc
batteries. This increasing demand will also lead to grow
need to be soundly managed and recycled to ensure
planet.

Environmentally sound and safe management of used
and would avoid negative impacts on human health
recover embedded raw materials and create safe jo
recycling industry.

However, in many regions of the world, recycling
dangerous and unsafe conditions, exposing workers an
substances. In many low- and middle-income co
recycling is a major public health concern and has nega
implications on health and wellbeing of societies, wit
population group. While end-of-life management o
comparable scales as lead-acid batteries yet, also here
adverse effects on workers and communities.

The responsibility for adequate and effective recycli
manufacturers and recyclers. Indeed, all stakeholders in
energy solutions which include batteries, can play an im
end-of-life management of batteries.

Therefore, the Alliance for Rural Electrification (ARE) has
for end-of-life battery management, setting minimum
space in low- and middle-income countries and calling
endorse and embed these guidelines within their daily

The initiative for these Guidelines is also supported by th
Battery and Metal Recycling" (ProBaMet), which is fu
Solidarity (IGS) and implemented by Oeko-institut, t
Electrification (ARE), Sustainable Research and Actio
(SRADev Nigeria) and Platform Blei/Platform Lead.

Renewable Energy House
Rue d'Arlon 63-67 | 1040 Brussels |

E-mail

Alliance for Rural Electrification

Guidelines

1. Quality & durability

- **Procure** batteries known for their **durability and longevity** to minimize early replacements.
- **Partner with reliable battery manufacturers** with a track record of producing high-quality products, and who can demonstrate transparent and sustainable value chains.
- **Implement stringent quality control measures and embed certified system design and installation training across low- and middle-income countries** to ensure only durable batteries are installed in distributed renewable energy systems.
- **Minimise the content of hazardous substances** in products as much as possible reducing pollution problems during end-of-life management.

2. Warranties, maintenance & repair

- **Employ repairable and recyclable system designs** to reduce waste and replacement needs.
- **Set up collection systems** based on warranties and servicing structures.
- **Negotiate extended warranties** with battery suppliers to provide clients with peace of mind regarding battery performance.
- **Offer comprehensive maintenance packages**, including regular inspections and preventive maintenance for batteries. This may also include modern monitoring solutions, which can identify potential issues at an early stage.
- **Establish and roll-out training of domestic skilled and certified technicians** for quality installation, as well as operations, maintenance and prompt repair services to minimize downtime and extend battery lifespan.

3. Take-back

- **Ensure a joint take-back scheme** is in place, decreasing the unit costs for the participating projects or companies.
- **Arrange convenient collection points** or collaborate with local recycling facilities for efficient battery retrieval.
- At their end-of-life, **ensure sound management of all batteries** under your direct control and under control of your contractors (e.g. installation companies, maintenance service providers) by applying best available practices in storage, transport and treatment available in your region of operation.
- **Collect and manage equivalent amounts of end-of-life batteries** as brought onto the respective national markets (either individually or collectively with other players).
- **Monitor battery collection and end-of-life management efforts** and keep evidence of achieved collection and management results.

Renewable Energy House
Rue d'Arlon 63-67 | 1040 Brussels |

E-mail

Phone

ProBaMet-Circularity-Guidelines.pdf (ruralelec.org)

Alliance for Rural Electrification

Integrating circularity practices in the DRE sector

Partnership for Responsible Battery and Metal Recycling (**ProBaMet**)

Batteries in DRE

Addressing the energy access gap

- RE solutions ⬆
- Need for batteries ⬆
- Risk of exposure to hazardous substances ⬆

Project Partners

Oeko-Institut
Overall project coordination

SRADev Nigeria
Coordination of project activities in Nigeria

Alliance for Rural Electrification (ARE):
Coordination with renewable energy sector partner

WirtschaftsVereinigung Metalle (WVM)
Coordination with non-ferrous metals industry

Associated partners are crucial…!

Lead exposure from unsound battery recycling

- 1/3 of all children globally have elevated blood lead levels
- Unsound lead-acid battery recycling is a leading source of lead exposure
- Even low-level lead exposure has lifelong consequences including reduced IQ
- Childhood lead exposure is estimated to cost lower- and middle-income countries almost USD $1 trillion due to lost economic potential of these children

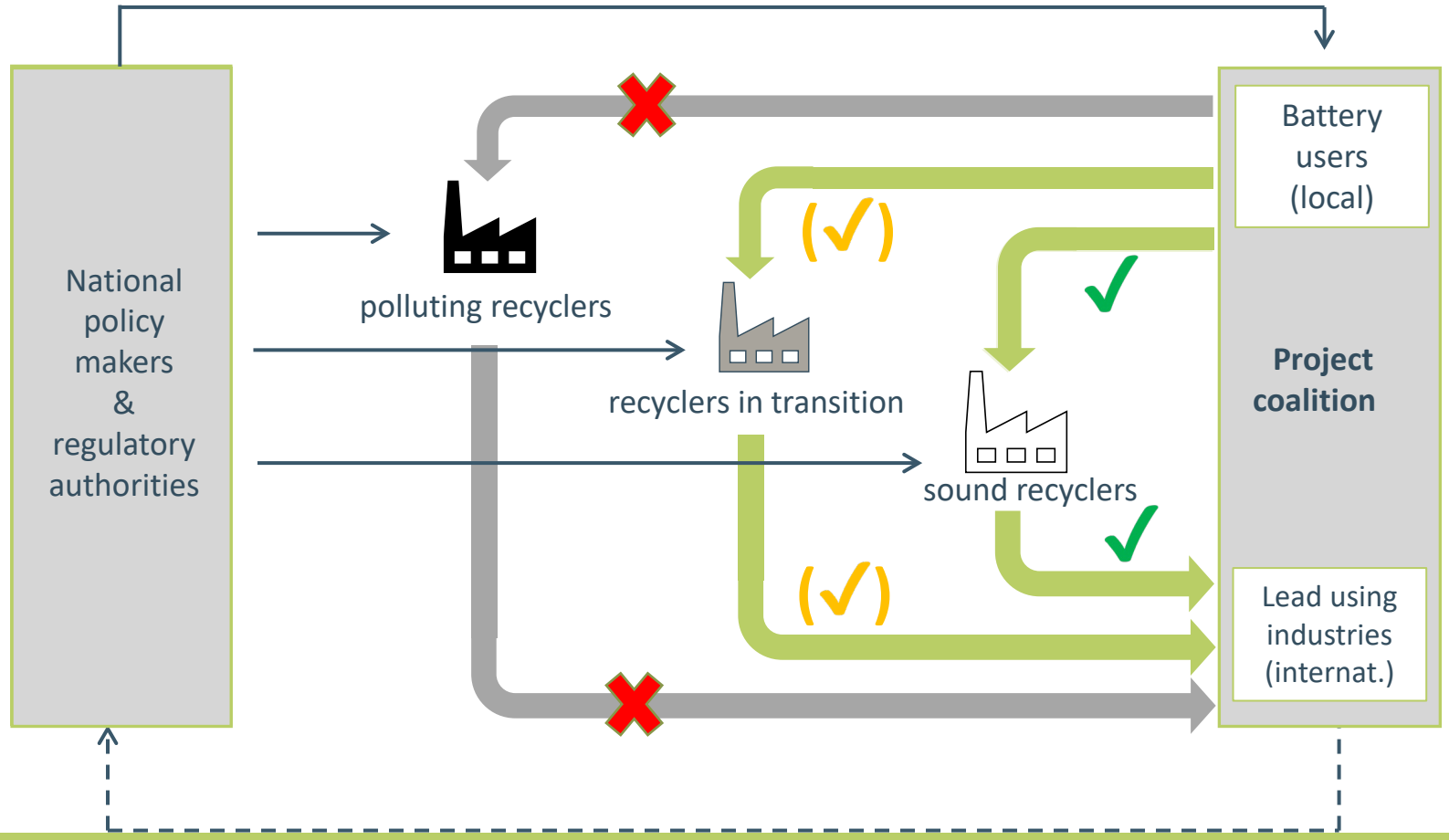
Why does pollution occur in lead-acid battery recycling?

Backyard smelting	Low standard industrial smelting	High standard industrial smelting
		
Low investment costs	Mid investment costs	High investment costs
Low operational costs	Low operational costs	Mid operational costs
Lead recovery rate: 50-60%	Lead recovery rate: up-to 90%	Lead recovery rate: > 98%
Very polluting	Very polluting	Environmentally sound

In unregulated markets, low standard industrial smelting is highly profitable !

Recycling situation in Nigeria…

How to change the dynamics: the ProBaMet Approach



1st step: Recycling facility assessments

- Jointly conducted recycling plant assessments in Ogun State in April 2024
- The 6 plants form the bulk of the battery recycling capacity installed in Nigeria

Results

Market transformation

Backyard smelting	Low standard industrial smelting	High standard industrial smelting
		
Low investment costs	Mid investment costs	High investment costs
Low operational costs	Low operational costs	Mid operational costs
Lead recovery rate: 50-60%	Lead recovery rate: up-to 90%	Lead recovery rate: > 98%
Very polluting	Very polluting	Environmentally sound

Market transformation

1) Knowledge: Will be brought in by the project
2) Push factors: Companies not willing to implement standards must be sanctioned (e.g. revoking operating license & closure)
3) Pull factors: Companies that have invested in high standards must see opportunities

crucial success factor

Circularity Guidelines

- Shared responsibility
- Guidelines for battery management
  - Quality & durability
  - Warranties, maintenance & repair
  - Take-back
  - Sound end-of-life management
- Call for endorsement of DRE sector

Circularity Guidelines
End-of-life
battery management

Alliance for Rural Electrification

Guidelines

1. Quality & durability

2. Warranties, maintenance & repair

[ProBaMet-Circularity-Guidelines.pdf (ruralelec.org)]

Thank you for your attention!

Julia von Franz
Alliance for Rural Electrification

j.vonfranz@ruralelec.org

Brainstorming workshop II

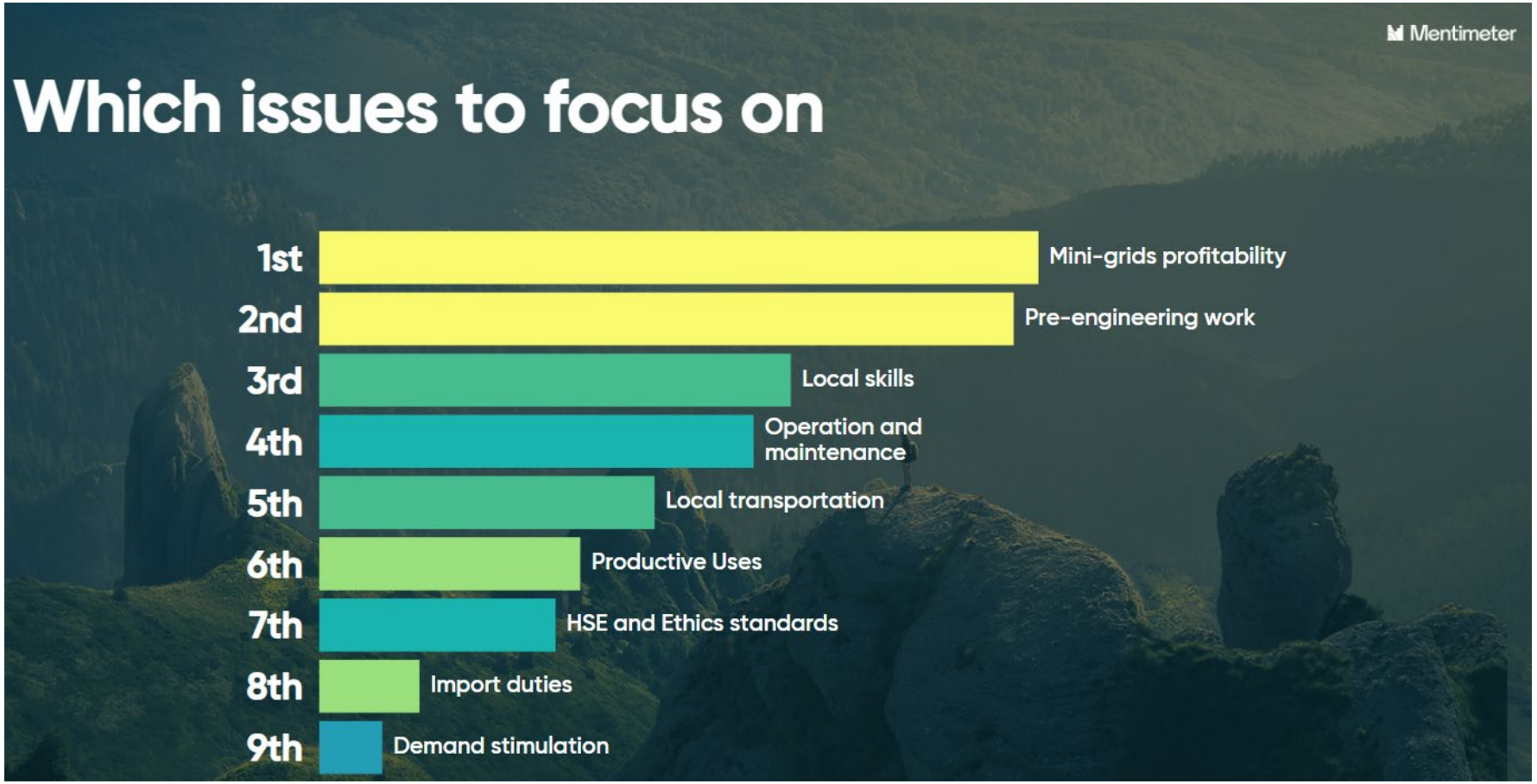
Deep-dive

ComAp

Vote on topics to address

Join at menti.com | use code 4659 4333

Survey – current results



ARE members family photo....

And Electrify the Night!