



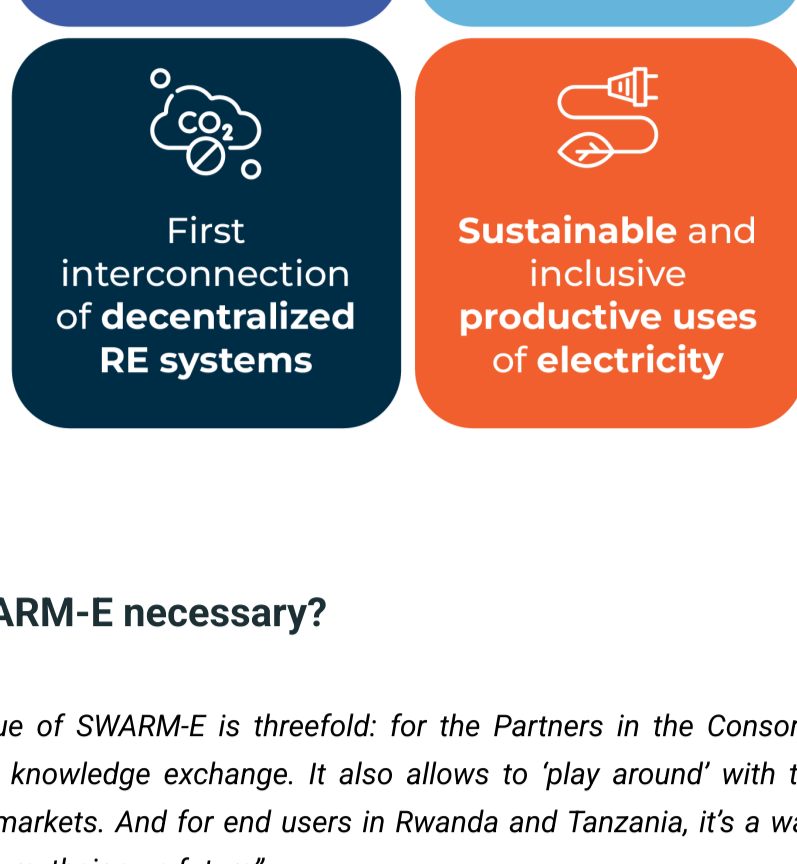
Swarm-E

NEWSLETTER

Issue 1

About the project

SWARM-E is a transdisciplinary approach for sustainable, affordable and modern energy access and wellbeing for Sub-Saharan Africa, aligned with the AU-EU Agenda 2063. The Project receives funding from the European Union's Horizon Europe research and innovation programme and is coordinated by MICROENERGY INTERNATIONAL GMBH (MEI). SWARM-E consists of 16 organisations, including partners from Europe (Germany, Spain, Bulgaria, Belgium, Ireland and Italy), African countries (Rwanda, Tanzania and Kenya) and Asia (Bangladesh).



Why is SWARM-E necessary?

*The added value of SWARM-E is threefold: for the Partners in the Consortium it's a great opportunity for knowledge exchange. It also allows to 'play around' with technology, while exploring new markets. And for end users in Rwanda and Tanzania, it's a way to create their own infrastructure, their own future**

(Raluca Dumitrescu, Project Coordinator).

SWARM-E proposes a solution to create, maintain and scale **affordable, reliable, modern and sustainable access to clean energy** that **leaves no one behind** and meets the energy and water and food productivity needs of all citizens.

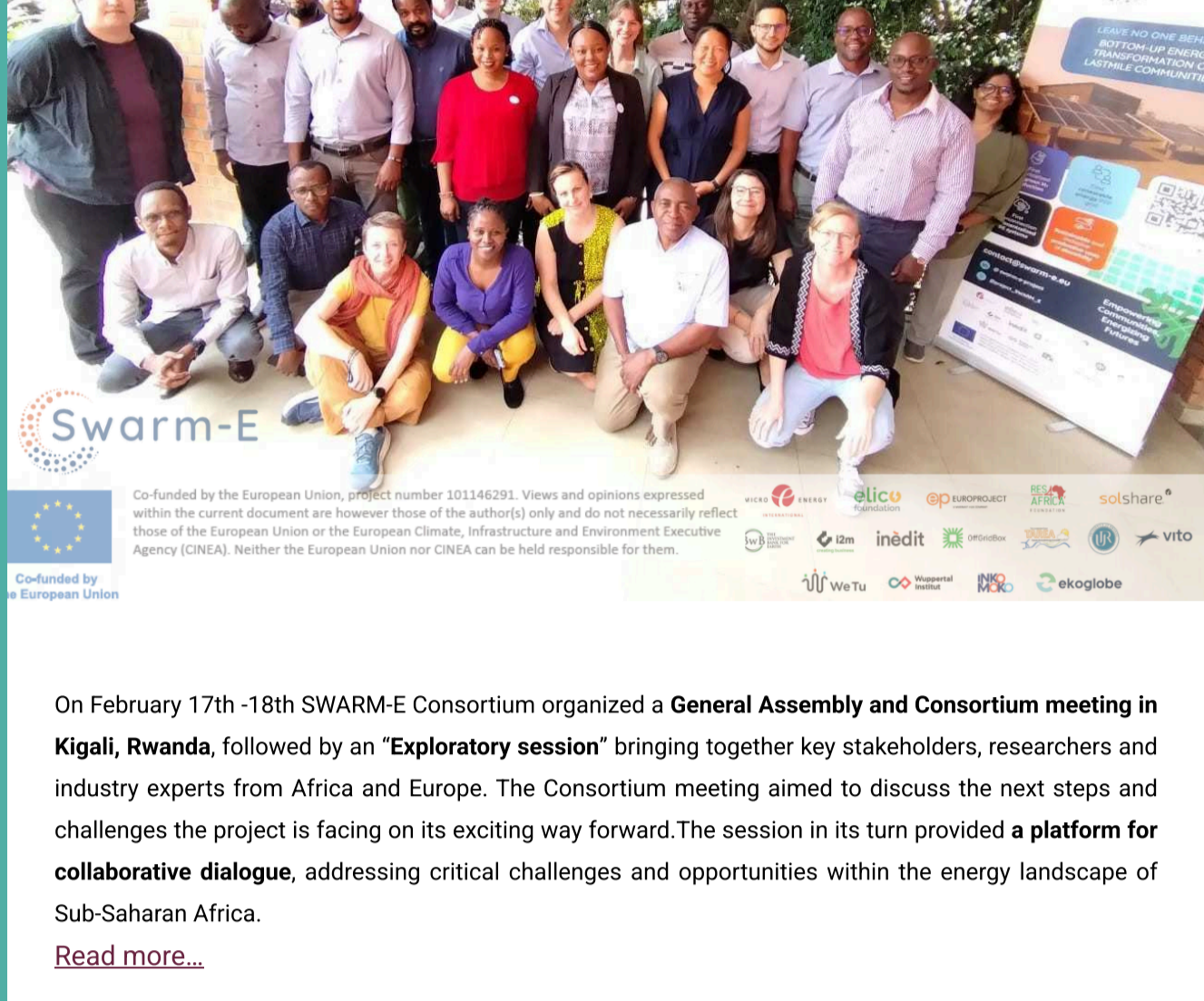
The solution is a **bottom-up modular and dynamic infrastructure called SWARM electrification (SWARM-E)** that **deploys a circular renewable energy system called a SWARM grid** in which households and businesses with solar home systems (SHS) are interconnected with those without via a low-voltage distribution grid. SWARM grids can be interconnected to scale reliable energy access and then interconnected to local decentralized renewable energy infrastructure (i.e., mini grid) where it exists to further reduce the redundancy of infrastructure.

Unlike traditional centralized grids, **swarm electrification allows local energy producers and consumers to share electricity dynamically**, much like a swarm of organisms working together. This approach helps communities gain access to electricity without relying on large-scale infrastructure projects.

[Read more...](#)

Latest news

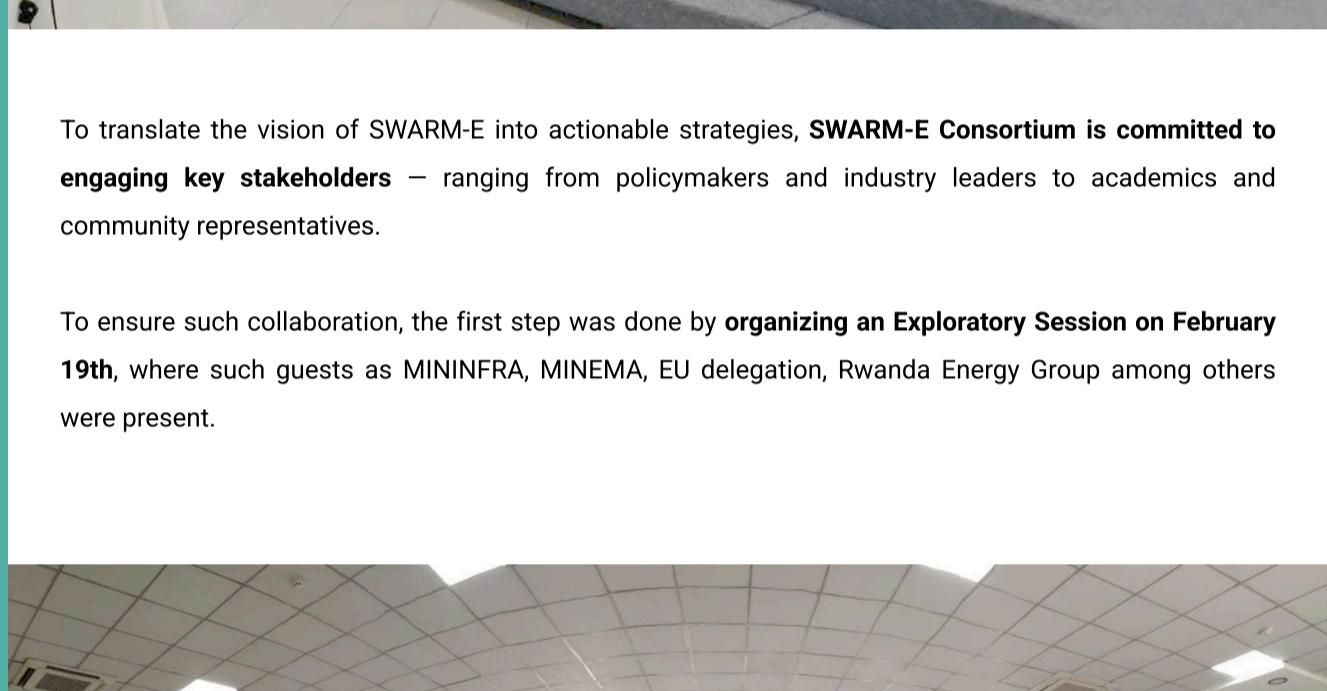
Consortium Meeting and Exploration session in Kigali



On February 17th-18th SWARM-E Consortium organized a **General Assembly and Consortium meeting in Kigali, Rwanda**, followed by an **"Exploratory session"** bringing together key stakeholders, researchers and industry experts from Africa and Europe. The Consortium meeting aimed to discuss the next steps and challenges the project is facing on its exciting way forward. The session in its turn provided a **platform for collaborative dialogue**, addressing critical challenges and opportunities within the energy landscape of Sub-Saharan Africa.

[Read more...](#)

Exploratory session - deep dive



To translate the vision of SWARM-E into actionable strategies, **SWARM-E Consortium is committed to engaging key stakeholders** – ranging from policymakers and industry leaders to academics and community representatives.

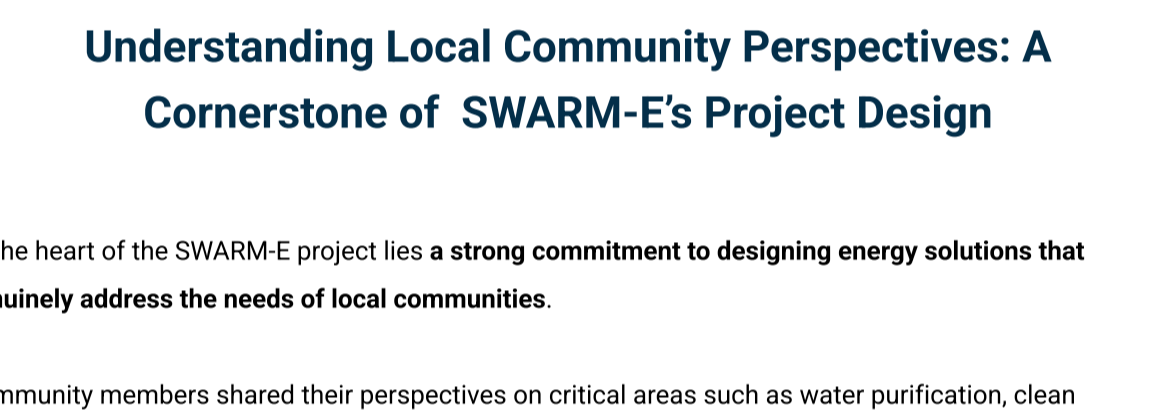
To ensure such collaboration, the first step was done by **organizing an Exploratory Session on February 19th**, where such guests as MININFRA, MINEMA, EU delegation, Rwanda Energy Group among others were present.



Cluster activities

Cluster activities have the objective of **multiplying the impact of projects**, by engaging with a larger stakeholder community, maximizing synergies between projects, sharing knowledge and best practices, enhancing dissemination efforts and developing policy recommendations.

In particular, **SWARM-E project is excited to be a part of WEFE Cluster**, including **8 Horizon initiatives**.



Focus Group Discussions

Understanding Local Community Perspectives: A Cornerstone of SWARM-E's Project Design

At the heart of the SWARM-E project lies a **strong commitment to designing energy solutions that genuinely address the needs of local communities**.

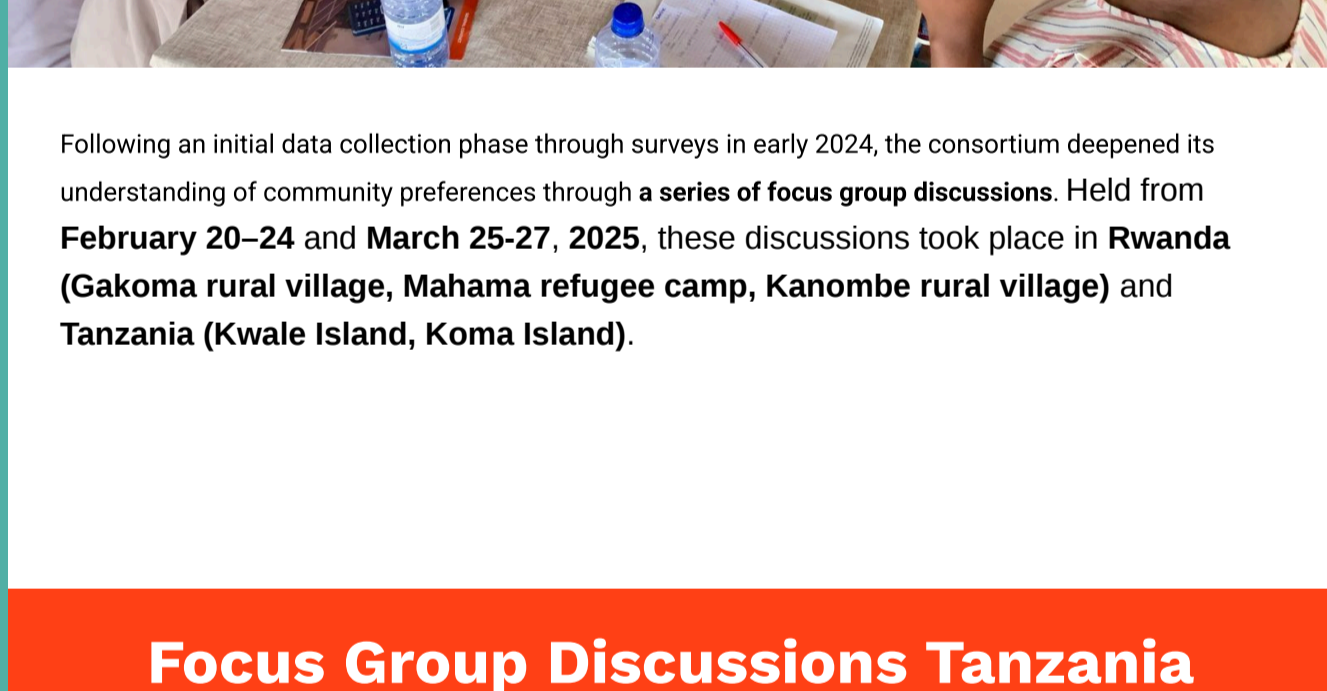
Community members shared their perspectives on critical areas such as water purification, clean cooking, electric mobility, and electrical appliances for agriculture and commercial activities. The discussions also highlighted the diverse needs of different community groups, with a strong focus on women's priorities, ensuring an inclusive and sustainable approach.

Focus Group Discussions Rwanda

Gakoma, February 20, 2025



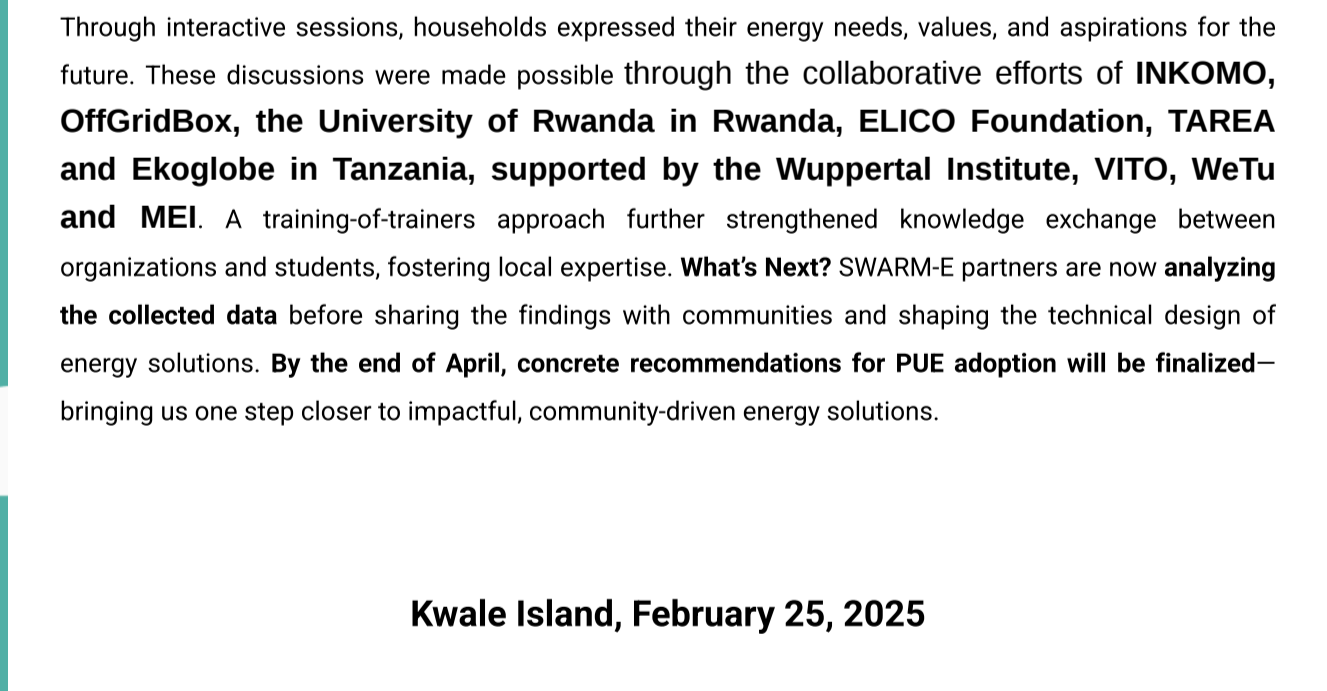
Mahama, February 21, 2025



Following an initial data collection phase through surveys in early 2024, the consortium deepened its understanding of community preferences through a **series of focus group discussions**. Held from **February 20-24 and March 25-27, 2025**, these discussions took place in **Rwanda (Gakoma rural village, Mahama refugee camp, Kanombe rural village)** and **Tanzania (Kwale Island, Koma Island)**.

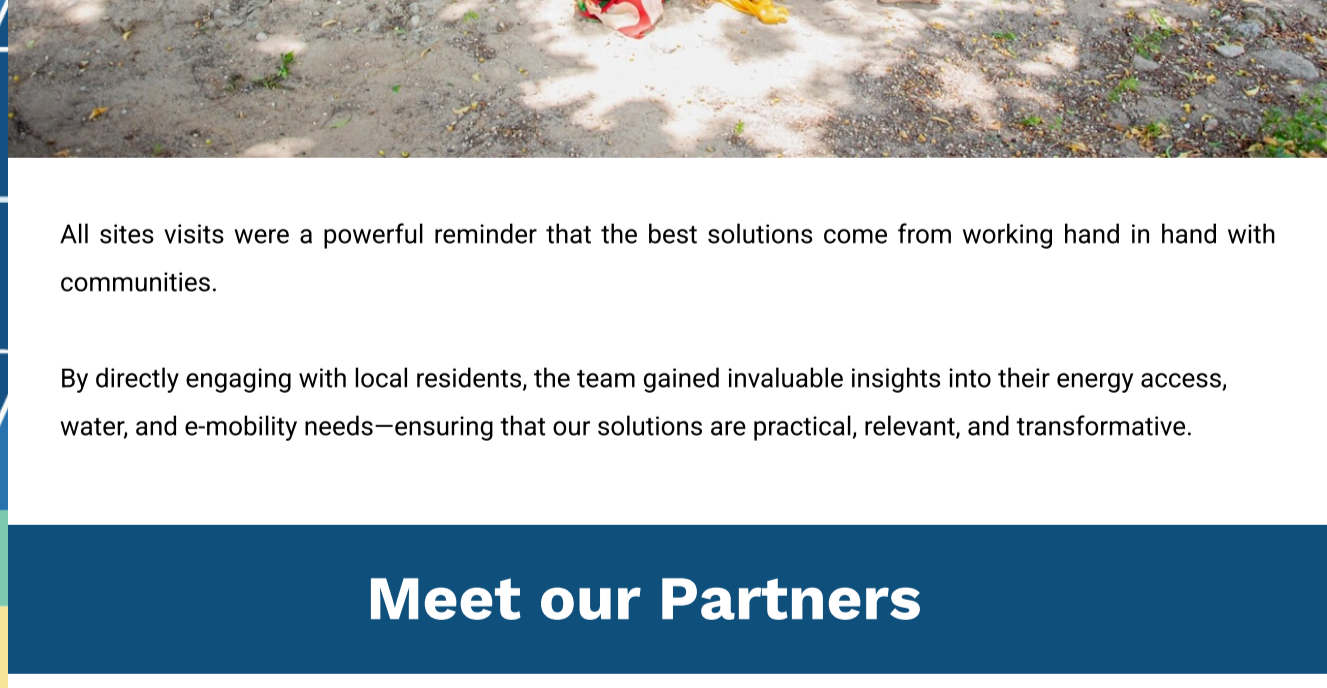
Focus Group Discussions Tanzania

Mkuranga, February 24-25, 2025



Through interactive sessions, households expressed their energy needs, values, and aspirations for the future. These discussions were made possible through the collaborative efforts of **INKOMO, OffGridBox, the University of Rwanda in Rwanda, ELICO Foundation, TAREA and Ekoglobe in Tanzania, supported by the Wuppertal Institute, VITO, WeTu and MEI**. A training-of-trainers approach further strengthened knowledge exchange between organizations and students, fostering local expertise. **What's Next?** SWARM-E partners are now **analyzing the collected data** before sharing the findings with communities and shaping the technical design of energy solutions. **By the end of April, concrete recommendations for PUE adoption will be finalized**—bringing us one step closer to impactful, community-driven energy solutions.

Kwale Island, February 25, 2025



All sites visits were a powerful reminder that the best solutions come from working hand in hand with communities.

By directly engaging with local residents, the team gained invaluable insights into their energy access, water, and e-mobility needs—ensuring that our solutions are practical, relevant, and transformative.

Meet our Partners



Meet Raluca Dumitrescu, Project Coordinator

Raluca represents **MICROENERGY INTERNATIONAL GMBH (MEI)**, the Germany-based company that leads the SWARM-E Consortium as Project Coordinators. Their goal, she said, is "to bring everyone together, at the same table, while our role is to **meet needs, expectations and challenges**, in order to create a sustainable ground for the environment".

Watch the interview with Raluca:

Video Part 1

Video Part 2

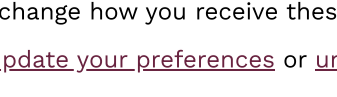
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Partners



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