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SUSTAINABLE
ENERGY WEEK

MAIA 3rd Policy Roundtable & 1st Workshop:

Putting Energy Transition into Practice: Contributions from Territories for European Energy Policies

Energy Sustainable Days - European Energy Week

14.06.2024

Online event

INTRODUCTION

The **MAIA 3rd Policy Roundtable and 1st Workshop on Putting Energy Transition into Practice: Contributions from Territories for European Energy Policies** focused on the transformative potential of energy communities within the European Union, and aimed to address the challenges, opportunities, and best practices associated with community-led energy initiatives.

Energy communities in the European Union (EU) represent a transformative approach to energy production, consumption, and governance, rooted in principles of decentralization, sustainability, and community empowerment. These communities, typically consisting of citizens, local authorities, and businesses, collaborate to generate, consume, and manage energy collectively. The concept emerged as a response to the imperative to transition towards cleaner, more sustainable energy systems while fostering local economic development and social cohesion.

Energy communities face significant challenges, inter alia:

- Regulatory complexity: Existing energy market frameworks often favour large, centralized utilities, posing legal and administrative barriers for community-led initiatives.
- Financial viability: Access to innovative and targeted financing mechanisms tailored to the needs of community projects is crucial for overcoming this barrier
- Engaging local and regional stakeholders: the viability and scalability of these projects are contingent on a holistic approach involving key stakeholders from the public, private, financial, and research sectors

Despite these challenges, several best practices have emerged to guide the development and implementation of energy communities in the EU. Strong community engagement and participation are foundational, ensuring that projects align with local needs, values, and priorities. Collaborative governance structures that promote transparency, inclusivity, and accountability are essential for building trust and fostering cooperation among community members.

OBJECTIVES

- Identify Barriers and Challenges: Participants will collate and classify the primary obstacles hindering the development of energy communities, including regulatory complexity and financial viability.
- Explore financial instruments: Participants can share experiences regarding Community Energy Financing Schemes (CEFS) in the EU and discuss the suitability of diverse financial sources and mechanisms that cater to the needs of Energy Communities
- Evaluate Role in Regional Development: The event will explore the role of energy communities in driving regional development, economic growth, and social cohesion.
- Highlight Best Practices: Through case studies and discussions, attendees will identify best practices and successful strategies employed by existing energy communities, emphasizing strong community engagement and collaborative governance.
- Avenues for Dissemination: The workshop will serve as a platform to discuss effective dissemination strategies for promoting the replication and scaling-up of successful energy community models across the EU.

- Role of MAIA Tools and Services: MAIA's innovative tools and services will be highlighted, showcasing their role in supporting the development, implementation, and scalability of energy community projects.

TOPICS FOR DISCUSSION

- Sharing strategic advice on lessons learned from experiences with energy communities.
- Discussing whether energy communities are grid-friendly and exploring ways to enhance their grid compatibility.
- Examining how energy communities support vulnerable communities, providing insights into their broader social impact and benefits.
- Sharing strategic advice on how local, national, and international regulations and policies impact energy communities.
- Discussing effective strategies to navigate regulatory challenges.

ORGANIZERS

MAIA Project Consortium partners.

SPEAKERS

João Dinis, office coordinator at Cascais Ambiente, Portugal

Tara Esterl, lead of the unit Integrated Energy Systems at the Austrian Institute of Technology (AIT)

Pia Widén, Green Party representative of the Åland Islands, Finland

Moderator: Andrea Geyer-Scholz, partner at Smart Cities Consulting and Member of the MAIA Consortium

AUDIENCE

The event connected around 20 people, including participation from various types of stakeholders, including:

- **Universities and Higher Education Institutions:**

Aristotle University of Thessaloniki

Aarhus University

The National and Kapodistrian University of Athens

Athens University of Economics and Business (AUEB)

- **Research Centers:**

ATHENA Research Center (Athena Research Centre, Athena RC)

Austrian Institute of Technology (AIT)

- **Companies and Consultancies:**

Accenture

SPI

Smart Cities Consulting | Resilienz & Nachhaltigkeit

- **Non-Governmental Organizations and Think Tanks:**

The Green Tank

Hållbart Initiativ

Regions4 Sustainable Development

- **Financial Institutions:**

EIB (European Investment Bank)

- **Environmental Foundations:**

Lombardy Foundation of the Environment (FLA)

- **Local and Regional Government:**

Comunidade Intermunicipal do Alto Tâmega e Barroso

Municipality of Vila Real

Municipality of Chaves

Municipality of Cascais

KEY TAKEAWAYS

Cascais, Portugal

1. Ambitious Sustainability Goals:
    - Cascais aims to significantly reduce its carbon footprint with a long-term commitment to sustainability.
    - Focus on reducing emissions from stationary energy and transportation.
2. Innovative Transportation Initiatives:
    - First municipality to offer free public transportation, enhancing sustainability and benefiting local businesses.
3. Solar Energy and Energy Communities:
    - The strategy includes implementing solar energy through energy communities and empowering residents to produce and distribute renewable energy.
    - Projects supported by local NGOs and EU grants showcase proactive approaches to leveraging external funding and partnerships.
4. Capacity Building and Energy Literacy:
    - Emphasis on educating the populace about energy costs and returns on investment to sustain community support and
    - Participating in international projects to advance sustainable practices and share knowledge.
5. Collaboration and Future Plans:
    - Collaborate with other cities to amplify community-driven efforts.
    - Aim to set a precedent for adopting innovative energy solutions and fostering environmental stewardship.

Åland Islands, Finland

1. Challenges of Decentralization:
    - Numerous small municipalities with autonomy over wind facility installations, leading to potential competition and delays.
2. Economic Potential:
    - The proposed model is similar to Alaska's where residents could become owners and receive dividends from energy projects.
    - Significant potential income from renting water areas and energy projects, encouraging local participation and economic resilience.
3. Urgency and Immediate Action:
    - Advocates for immediate implementation of initiatives to capitalize on financial benefits and support the green transition.
4. Community Ownership Model:
    - Encourages local communities to embrace renewable energy projects, enhancing economic resilience and sustainability.

Austrian regions

1. Successful Energy Communities:
    - Integral components of Austria's energy strategy, e.g. mandated to collaborate with Distribution System Operators (DSOs).
    - Legal frameworks ensure transparent rules for allocating returns from energy projects, fostering community participation and ownership.
2. Inclusivity and Support for Vulnerable Households:
    - Energy communities benefit vulnerable populations, mitigating energy poverty and enhancing energy security and affordability.
    - Emphasis on inclusivity to ensure equitable sharing of benefits from sustainable energy initiatives.
3. Social Equity in Energy Transition:
    - Austria's approach integrates social equity into its energy strategy, aiming for an inclusive and socially responsible energy policy.
    - Community engagement fosters social cohesion and economic resilience.

Overall Insights

1. Sustainable Energy Projects:
    - Cascais, Åland Islands, and Austria showcase diverse strategies to achieve sustainability goals through renewable energy technologies.
2. Community Engagement and Capacity Building:
    - Community involvement and education are crucial for the success of sustainable energy initiatives.
    - Empowering local communities to participate actively in energy projects promotes resilience and sustainability.
3. Economic and Social Benefits:
    - Sustainable energy initiatives offer substantial economic opportunities and social benefits.
    - Models like those proposed for the Åland Islands and implemented in Austria demonstrate that renewable energy can drive economic prosperity and social equity.
4. International Cooperation:
    - Sharing knowledge and resources through international projects amplifies the impact of local efforts and accelerates progress towards sustainability.
5. Inclusive Energy Solutions:
    - Ensuring that vulnerable populations benefit from energy initiatives is essential for a just and equitable energy transition.
    - Successful examples from Austria highlight the importance of robust legal frameworks and inclusive policies.

These key takeaways emphasize the importance of integrating renewable energy technologies, fostering community engagement, building local capacity, and promoting international cooperation to achieve a sustainable and resilient energy future.

POLICY ROUNDTABLE: ADDRESSING CHALLENGES AND IDENTIFYING OPPORTUNITIES

João Dinis, office coordinator at Cascais Ambiente, presented Cascais's ambitious goals to reduce its carbon footprint, emphasizing a long-term commitment to sustainability. He identified stationary energy and transportation as the primary contributors to emissions within the municipality. Notably, Cascais has pioneered free public transportation services, marking it as the first municipality to do so, thereby enhancing the sustainability of its transportation sector and generating positive economic impacts for ancillary businesses[1] like parking and energy services.

To achieve carbon neutrality, Joao outlined Cascais's strategy of implementing solar energy, primarily through energy communities. These communities empower residents to produce and distribute renewable energy locally, fostering a sustainable and collaborative energy model. Already underway with several installations supported by local NGOs and EU grants, these initiatives demonstrate Cascais's proactive approach and readiness to leverage external funding and partnerships.

Joao underscored Cascais's capacity-building efforts, highlighting achievements in energy literacy among its populace. Understanding the financial aspects such as cost assessments and return on investments is pivotal in sustaining community support for these initiatives. Moreover, Cascais is actively engaged in international cooperation within the EU, participating in six ongoing projects aimed at advancing sustainable practices.

Looking ahead, Joao emphasized the importance of collaboration with other cities to amplify the impact of community-driven efforts. By pooling resources and knowledge, Cascais aims to accelerate progress towards its sustainability goals while setting a precedent for other municipalities to follow in adopting innovative energy solutions and fostering environmental stewardship.

Pia Widén, Green Party representative of the Åland Islands, focused on the challenges and opportunities surrounding sustainable energy initiatives in the Åland Islands[2], a region known for its demilitarized status and favourable wind conditions. Unlike northern Finland and Sweden, where energy production is concentrated in the north, the Åland Islands face decentralization with numerous small municipalities, each with around 2000 inhabitants. These municipalities possess the autonomy to decide on the installation of wind facilities, potentially leading to competition among these municipalities and project delays.

Pia highlighted the economic potential of these initiatives, proposing a model similar to Alaska's where residents could become owners and receive dividends from energy projects. This approach not only supports the green transition but also explores alternative opportunities like hydrogen gas and other sustainable technologies. Pia emphasized the urgency of immediate action,

[1] An ancillary business is a secondary or supplementary business that provides services to other entities.
[2] To learn more about the Aland Islands energy areas visit: https://www.sunnanvind.ax/en/about-project/northern-energy-areas

advocating for the implementation of these initiatives within the next two years to capitalize on the financial benefits.

Financially, Pia underscored the significant potential income opportunities from sustainable energy initiatives, such as a generic income of €2000 per person annually from renting water areas, and up to €60 million per municipality per year. These figures illustrate substantial economic prospects for the region, encouraging local communities to embrace renewable energy projects as a means of enhancing their economic resilience and sustainability efforts, leading to a fairer transition and boosting climate justice.

In summary, Pia Widén's presentation on the Åland Islands highlighted both the complexities and potentials of sustainable energy development in a decentralized region. By proposing a community ownership model akin to Alaska's, she outlined a pathway towards economic prosperity while advancing environmental goals through innovative energy solutions.

Tara Esterl, lead of the unit Integrated Energy Systems at the Austrian Institute of Technology (AIT), delved into Austria's robust landscape of sustainable energy initiatives, focusing prominently on the success and significance of energy communities. These communities are integral components of Austria's energy strategy, spread throughout the country. Their legislative mandate requires Distribution System Operators (DSOs) to collaborate closely with these communities, ensuring transparent rules for the allocation of returns from energy projects. This legal framework not only facilitates community participation but also fosters a sense of ownership and responsibility among residents towards sustainable energy practices.

Tara highlighted the community-oriented nature of these energy initiatives, advocating for energy communities to be perceived as friendly and supportive groups. She underscored survey findings indicating that the energy communities recognize their role in benefiting vulnerable households, with some of them specifically acknowledging their contribution to mitigating energy poverty. This underscores the dual impact of these initiatives: not only do they advance Austria's sustainability goals, but they also provide tangible benefits to communities by enhancing energy security and affordability.

Moreover, Tara stressed the importance of inclusivity within energy communities, emphasizing the need to ensure that vulnerable populations receive adequate support. By fostering a collaborative and supportive environment, these communities can effectively address social inequalities while advancing environmental sustainability goals. This approach aligns with Austria's broader strategy of integrating social equity into its energy transition, thereby ensuring that the benefits of sustainable energy development are shared equitably across society.

In conclusion, Tara’s presentation highlighted Austria's proactive stance in promoting sustainable energy through community engagement. By empowering energy communities and emphasizing their role in supporting vulnerable populations, Austria sets a precedent for inclusive and socially responsible energy policies that resonate globally. By leveraging community participation and support, Austria aims not only to achieve its environmental objectives but also to foster resilient and cohesive communities nationwide.

WORKSHOP: "TOWARDS A SUSTAINABLE TOMORROW: EXPLORING OPTIONS FOR ENERGY COMMUNITIES"

On June 14th, the workshop titled "Towards a Sustainable Tomorrow: Exploring Options for Energy Communities" was held along with the 3rd MAIA Policy Roundtable, to engage participants in identifying and addressing the challenges faced by energy communities in Europe, elaborating on their role in regional development and building a shared vision for the short and long term. The workshop comprised four interactive exercises conducted on a Miro board, facilitating collaborative participation and discussion.

Exercise 1: Barriers, Challenges & Solutions for Energy Communities

The first exercise aimed to identify the main barriers, challenges, and solutions faced by energy communities across six aspects: financial, policy, technological, social and behavioral, educational, and environmental. Figure 1 shows how the Miro board was formed after the workshop.

In the *Financial* cluster, participants identified several financial barriers and challenges, including high upfront costs, financing difficulties, and uncertainty in revenue streams. To address these issues, the solutions proposed included implementing financial incentives and subsidies and establishing community funding models and cooperatives.

In the *Policy* cluster, complex regulatory frameworks, permitting and zoning issues, and legal restrictions were highlighted as significant challenges in the policy domain. Participants suggested simplifying regulatory processes, advocating for supportive policy changes, and providing legal assistance and resources to help navigate compliance requirements.

In the *Technological* cluster, limited access to advanced technologies, technical integration and interoperability issues, and maintenance and reliability of systems were noted as key challenges. Proposed solutions included facilitating technology transfer and partnerships, developing standardized protocols for integration, and training local technicians for maintenance.

In the *Social & Behavioral* cluster, challenges included community acceptance and engagement, social norms and behaviours, trust and cooperation within the community, resistance to change, risk aversion, and lack of motivation or incentives for participation. Solutions focused on conducting community engagement campaigns, promoting success stories and role models, establishing trust-building activities, and providing incentives for participation.

In the *Educational* cluster, challenges identified were the lack of awareness and understanding of renewable energy benefits, insufficient training and expertise, and misinformation and misconceptions. Solutions suggested included developing community environmental education programs, offering training and certification courses, and launching information campaigns to counter misconceptions.

In the *Environmental* cluster, the challenges identified comprise site-specific challenges like land availability and suitability, environmental impact and biodiversity concerns, and geographic isolation and logistical issues. Proposed solutions were conducting environmental impact assessments.

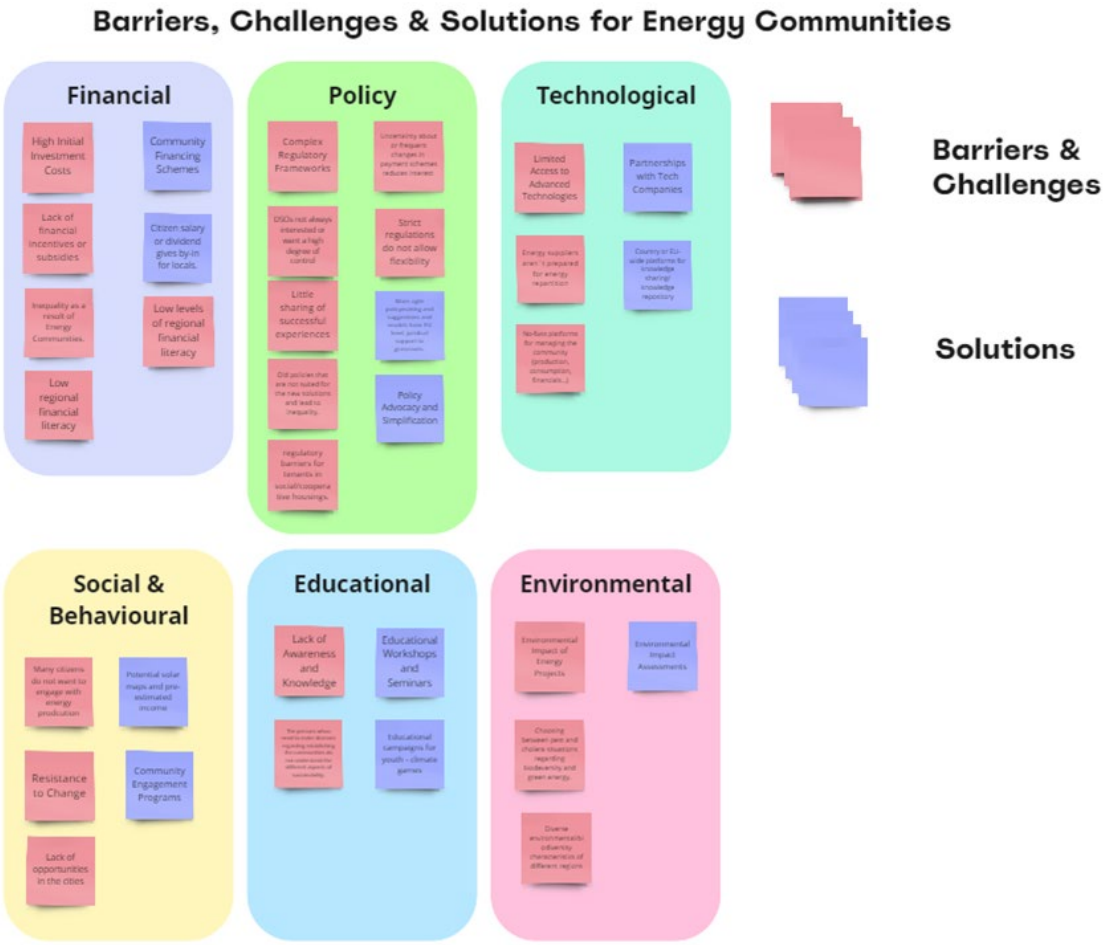

Figure 1. *Exercise 1 – Barriers, Challenges, and Solutions for Energy Communities*

Exercise 2: Role and Impact of Energy Communities

The second exercise was a brainstorming activity focused on the roles and impacts of energy communities in various areas, including economic growth, job creation, environmental sustainability, social cohesion, and innovation. The regional development role and impact of energy communities were subsequently correlated, where applicable, with the Sustainable Development Goals, namely SDG6 (Clean water and sanitation), SD7 (Affordable and clean energy), SDG11 (Sustainable cities and communities), SDG12 (Responsible consumption and production), SDG13 (Climate action), SDG14 (Life below water) and SDG15 (Life on land). Exercise 2 is illustrated in Figure 2.

Participants highlighted, inter alia, the role that energy communities can play in the creation and retainment of job opportunities locally, the multiplier effect brought upon by investments in renewable energy, the potential use of proceeds to fund environmental projects with local impact, the creation of employment away from fossil fuels, and the bolstering of the sense of community empowerment in the quest for sustainability. All impact areas were identified as closely intertwined with the Paris Agreement, especially with SDGs 7,11 and 12.

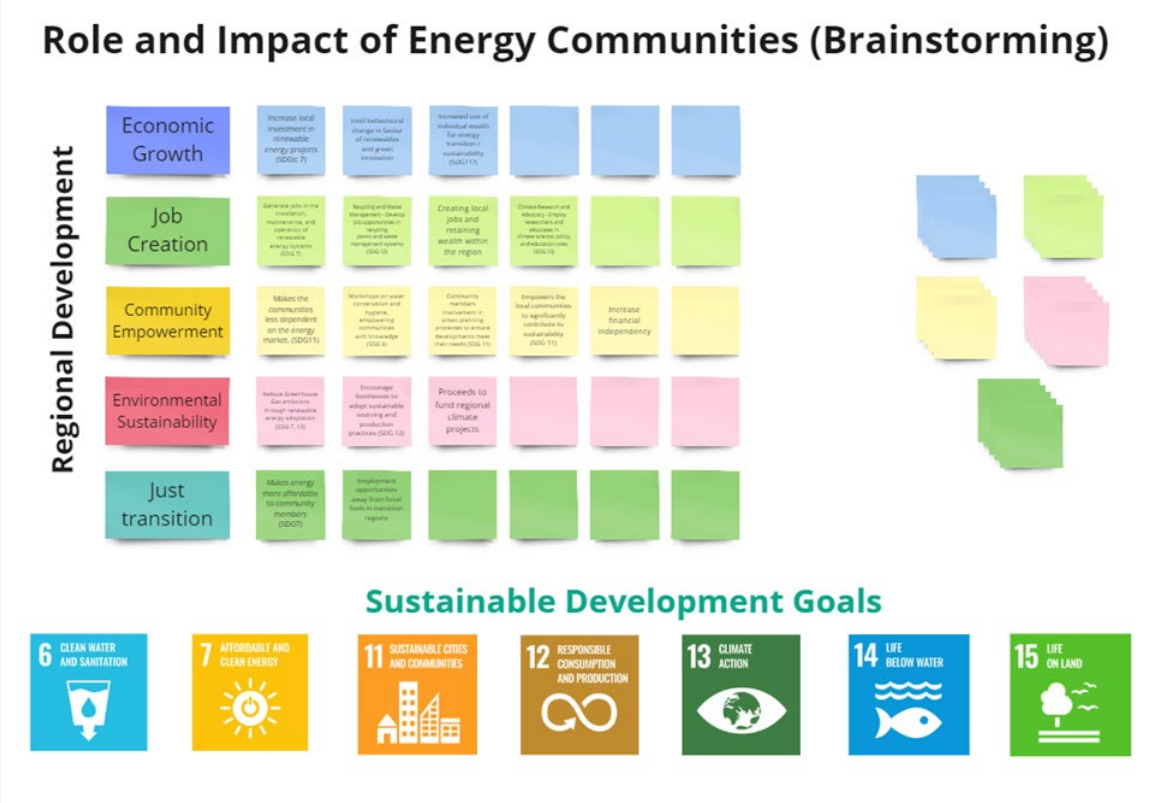

Figure 2. *Exercise 2 – Role and Impact of Energy Communities*

Exercise 3: Community Engagement and Education

The third exercise integrated community engagement and education through various activities. Participants generated ideas for community events, workshops, school programs, online courses, and public campaigns in a mind map format. Ideas for community events included organizing fairs, open houses, and demonstration projects to engage the community in renewable energy discussions. Participants suggested conducting workshops on home energy efficiency improvements, providing training on energy auditing for homes and businesses, and hosting expert seminars on the benefits of renewable energy. For school programs, the proposals included developing renewable energy curricula for primary, secondary, and higher education levels, organizing hands-on projects and field trips to renewable energy facilities, and hosting science fairs focused on renewable energy. Ideas for online courses and webinars encompassed offering free online courses and webinars on various aspects of renewable energy and its benefits. Lastly, participants suggested launching public campaigns with posters, billboards, public service announcements, infographics, and podcast episodes highlighting the benefits of renewable energy adoption.

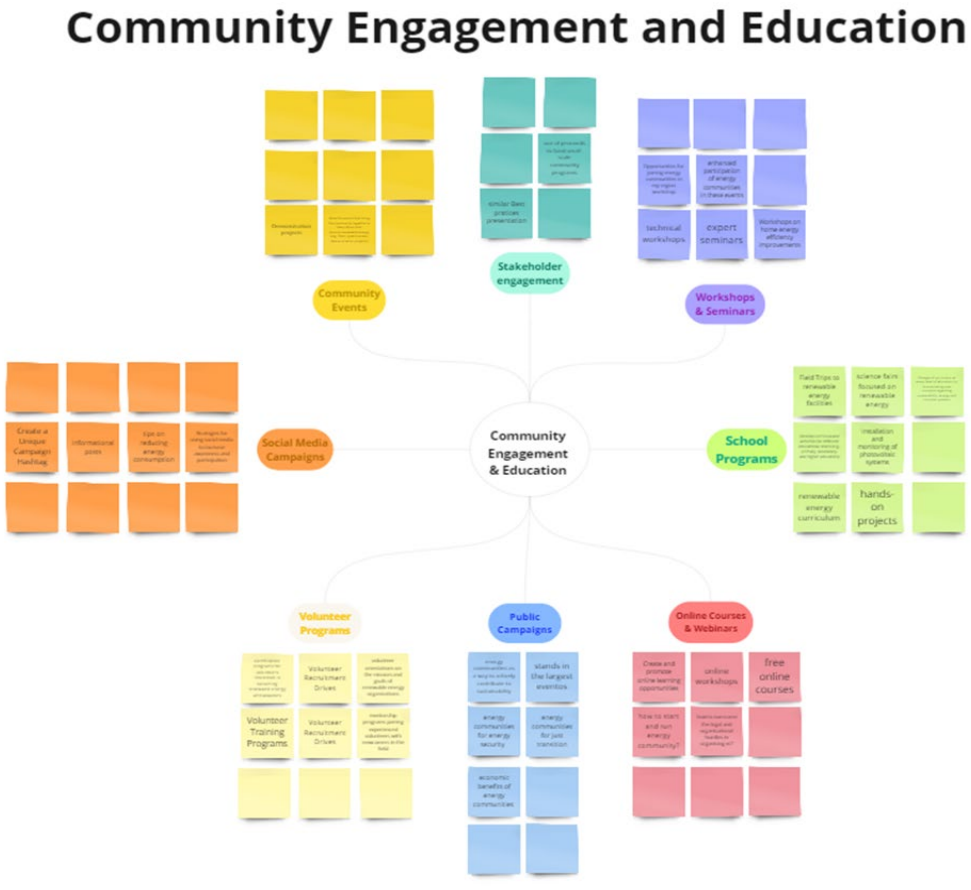

Figure 3. *Exercise 3 – Community Engagement and Education*

Exercise 4: Vision and Goal Setting on Energy Transition

The final exercise focused on setting visions and goals for energy transition across three timelines: short-term (1 to 2 years), mid-term (by 2030), and long-term (by 2050). The short-term (1 to 2 years) visions and goals included, among others, increasing renewable energy adoption, improving storage, technology and availability, to create a network ready for receiving decentralized production, Concerning the mid-term (benchmarking at 2030) the participants included as goals full and substantive incorporation of four aspects of justice in all policy areas, develop local energy storage solutions, large stand-alone shops and shopping malls 50% energy self-sufficient etc. Finally, concerning the long-term goals (by 2050) last ICE cars dying out, >90% ICE penetration and ensuring the entire community & energy needs are met through renewable sources were proposed as goals.

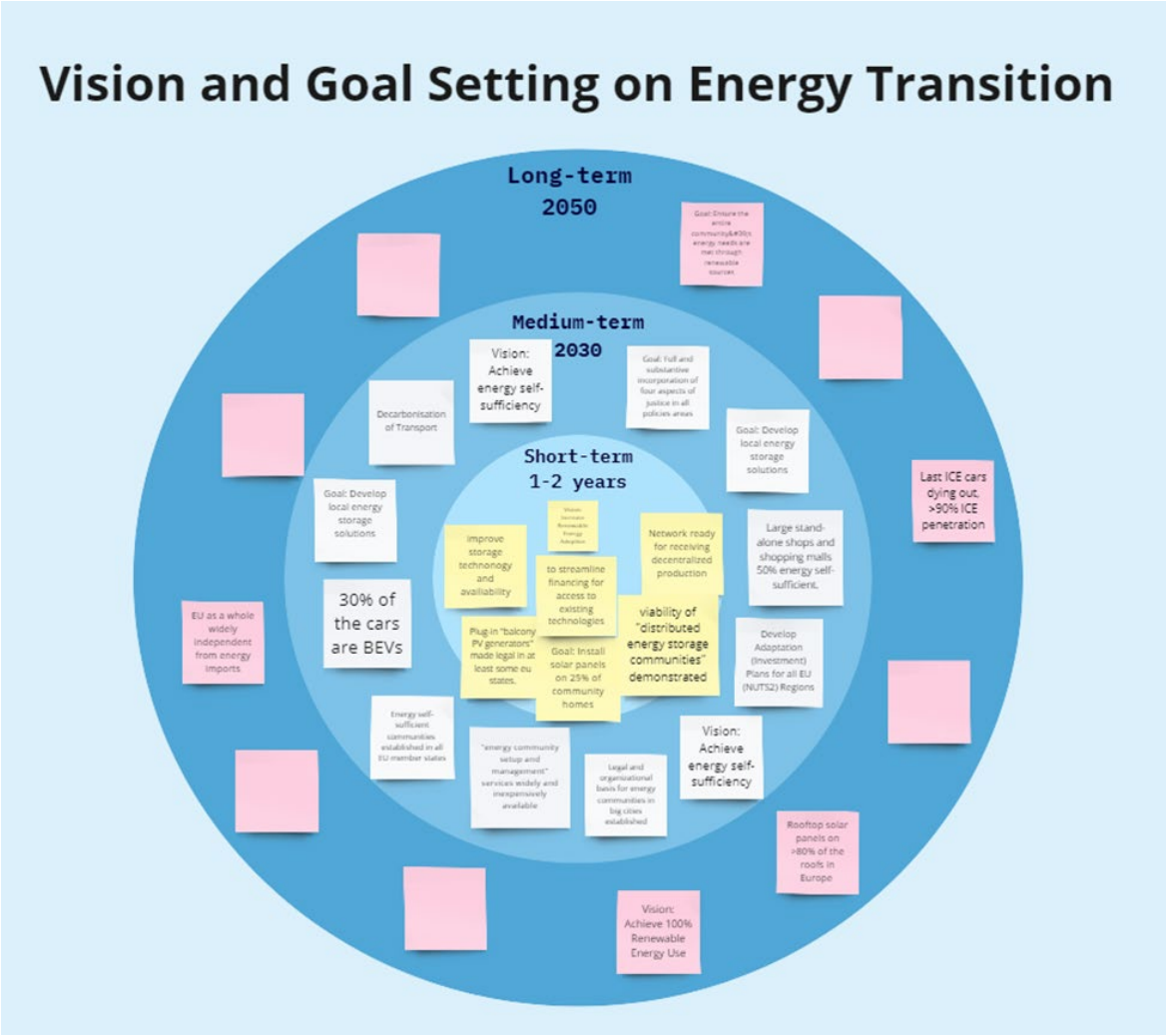

Figure 4. *Exercise 4 – Vision and Goal Setting on Energy Transition*

CONCLUSIONS

The workshop "Towards a Sustainable Tomorrow: Exploring Options for Energy Communities" successfully engaged participants from diverse backgrounds including policymakers, industry experts, community leaders, and academics. Through interactive exercises conducted on a collaborative platform, participants collectively identified and analyzed barriers, challenges, and potential solutions for energy communities across Europe.

The exercises not only facilitated the identification of financial, policy, technological, social and behavioural, educational, and environmental challenges but also encouraged brainstorming on innovative solutions. Participants explored the nuanced roles and impacts of energy communities in fostering regional development, enhancing economic resilience, promoting environmental sustainability, and contributing to social cohesion.

Moreover, the workshop emphasized the critical link between community engagement and education. Discussions centred on strategies to enhance public awareness, foster community participation, and build local capacity in renewable energy adoption. Ideas ranged from organizing community events like fairs and open houses to developing tailored educational programs in schools and online platforms.

Furthermore, the workshop provided a platform for setting visionary goals for energy transition. Participants articulated short-term, mid-term, and long-term objectives aimed at increasing renewable energy adoption, achieving energy self-sufficiency, and ultimately transitioning to 100% renewable energy sources by 2050. These goals were grounded in realistic timelines and actionable steps, demonstrating a collective commitment to sustainable energy practices.

The interactive nature of the workshop not only facilitated meaningful discussions but also generated valuable insights and actionable recommendations to advance the development and success of energy communities across Europe. Participants left the workshop equipped with new perspectives, practical strategies, and strengthened networks to drive positive change in their respective communities and beyond.

ANNEX

AGENDA

12:00 - 12:10 CET | Welcome and Introduction

Opening Remarks: Andrea Geyer, partner at Smart Cities Consulting and Member of the MAIA Consortium

- A brief introduction to the EU Sustainable Energy Days and the MAIA project's role.
- Overview of the event's objectives and the significance of energy communities in the EU.

12:10 - 12:40 CET | Policy Roundtable: Addressing Challenges and Identifying Opportunities

Moderator: Andrea Geyer, partner at Smart Cities Consulting and Member of the MAIA Consortium

Introduction to the policy roundtable (5')

Discussion Points:

- Identifying and classifying the primary barriers hindering energy community development.
- Assessing the role of Energy Communities in promoting regional development and sustainability.
- Exploring the suitability of diverse financial sources and mechanisms.
- Underscoring the role of policies at the regional, national and EU levels.
- Presentation of best practices and opportunities for peer-to-peer learning.
- Engaging key stakeholders from public, private, financial, and research sectors.

Panelists (15'):

Panelists will have 5 minutes to answer a question

- João Dinis, office coordinator Cascais Ambiente, Portugal
- Pia Widén, Green Party representative, Åland Islands, Finland
- Tara Esterl, lead of the unit Integrated Energy Systems at the Austrian Institute of f Technology (AIT)

Q&A Session (10'): Interactive discussion with participants to address questions and insights posed by the audience.

12:40 - 13:20 CET | Workshop: Best Practices and Collaborative Strategies

Workshop Facilitator: Dr Lida Dimitriadou, ATHENA RC

Presentation of the activity (5')

Activities - Miro Board (20'):

1. Activity 1: mapping barriers to solutions for key challenges facing energy communities.
2. Activity 2: role and impact of energy communities in sustainable regional development.
3. Activity 3: community engagement and education.
4. Activity 4: vision and goal setting of energy communities.

Summary and Reflections on the Activities (10')

13:15 - 13:30 CET | Conclusion and Next Steps

Moderator: Andrea Geyer, partner at Smart Cities Consulting and Member of the MAIA Consortium

- Recap of key takeaways from the policy roundtable.
- Summarize findings and recommendations from the workshop.
- Emphasis on the role of MAIA tools and services in supporting energy community projects.
- Announcement: Information on the forthcoming report and policy briefs by MAIA partners.