

Deliverable 2.1 - Blueprint Design of an Open Collaboration Model

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Final Version





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Author(s)	Erik Laes, Erika Meynaerts, Joeri Naus
Contact	erik.laes@vito.be
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² **PU** = Public, **SE** = Sensitive



¹ **R** = Document, Report; **Dem** = Demonstrator, pilot, prototype; **DEC** = website, patent filings, videos, etc; **OTHER** = other

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EXECUTIVE SUMMARY

What?	•The OCM assists a team of pioneers in developing, designing and implementing a value network for a local energy initiative that delivers shared, multiple and collective value to the community. It focuses specifically on the role of local authorities and local energy communities in this process.
Why?	•Delivering shared, multiple and collective value to the community is vital to secure the sustainability, legitimacy, and resilience of local energy initiatives. By working together, local authorities and local energy communities can leverage their combined resources and expertise to drive the adoption of renewable energy, improve energy efficiency, and build resilient and inclusive energy systems.
How?	•The OCM guides the team of pioneers through the 4 steps of discovering existing value networks in the community, dreaming about the values they wish to realize, (re)designing a value network for a local energy initiative and inspired by the 'dream values', and delivering value to the community.



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LIST OF ABBREVIATIONS

BART	Boundary Action Reflexive Tutor
JET	Just Energy Transition
КРІ	Key Performance Indicator
ОСМ	Open Collaboration Model
PV	Photo Voltaic
SME	Small and Medium-sized Enterprise
SWOT	Strengths, Weaknesses, Opportunities and Threats



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1 INTRODUCTION

1.1 Background

Local authorities (i.e., municipalities or cities) and energy communities can be natural allies in the just energy transition, as they both aim to further the interests of all citizens. By working together, they can leverage their combined resources and expertise to drive the adoption of renewable energy, improve energy efficiency, and build resilient and inclusive energy systems. This collaboration can lead to numerous benefits, such as reduced carbon emissions, increased energy affordability, a strengthened local economy, increased energy independence, and empowered local communities.^{3,4,5} The pivotal role of local authorities in accelerating the local energy transition is also acknowledged by the 'Clean Energy for All Europeans' package and its key directives. The Renewable Energy Directive (EU/2023/2413) recognizes local authorities as one of the three eligible actors for participating actively within energy communities. Furthermore, the Energy Efficiency Directive (EU/2023/1791) emphasizes the vital role played by local authorities in renovating buildings and procuring socially responsible and energy-efficient products and services.

As illustrated by several Horizon2020 projects on energy communities, such as COME RES⁶, mPower⁷, SCCALE 20 30 50⁸, LIFE LOOP⁹ and Power Up¹⁰, local authorities are well placed as initiators, enablers, and/or partners of energy communities. However, many challenges remain to set up a collaboration between local authorities and energy communities:

1. Financial Constraints:

- Limited funding and financial resources for initiating and sustaining community energy initiatives.
- Challenges in securing investments for renewable energy infrastructure.

2. Regulatory and Policy Complexity:

- Complex and ambiguous regulatory frameworks that can hinder the development and implementation of community-based energy initiatives.
- Lack of supportive policies at local and national levels.

3. Technical and Infrastructure Challenges:

- Limited technical expertise and resources for planning and implementing community energy initiatives.
- Issues related to grid integration and infrastructure limitations.

¹⁰ <u>https://energy-cities.eu/project/power-up/</u>



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³ <u>https://www.iea.org/events/the-role-of-local-energy-communities-in-clean-energy-transitions</u>

⁴ https://www.rescoop.eu/the-rescoop-model

⁵ <u>https://rural-energy-community-hub.ec.europa.eu/system/files/2023-</u>

^{11/}Empowering%20Municipalities%20to%20Develop%20and%20Support%20Rural%20ECs.pdf ⁶ <u>https://come-res.eu/</u>

⁷ https://municipalpower.org/

⁸ https://www.sccale203050.eu/

⁹ https://energy-cities.eu/project/lifeloop/

4. Community Engagement and Awareness:

- Challenges in engaging and mobilizing citizens in an inclusive and participatory manner due to a lack of knowledge, skills and resources.
- Resistance or opposition from citizens to renewable energy initiatives (even if these initiatives are developed by a local energy community).

5. Access to Funding:

- Challenges in accessing grants, subsidies, and other financial instruments that support community energy initiatives.
- Difficulty in demonstrating the financial viability and scalability of community energy initiatives.

6. Political and Actor Dynamics:

- Within municipalities, a deeply ingrained culture of primarily collaborating with established energy incumbents and companies often results in a reluctance or difficulty in partnering with energy communities.
- Conflicting interests among actors can hinder decision-making and project approval.

7. Capacity and Resources:

- Insufficient human resources and expertise within local authorities for managing and implementing energy community initiatives.
- Limited capacity for monitoring and evaluating project outcomes.

8. Equity and social inclusion:

• Barriers related to access, affordability, and representation for vulnerable populations.

1.2 Aim

The TANDEMS Open Collaboration Model (OCM) aims to set up **productive collaborations** between local authorities and local energy communities that create **multiple**, **shared and collective value** in the local energy transition (cf. Section 2).¹¹

Although other parties such as social workers, civil society organizations or private enterprises can play an important role in such collaborations, the OCM focuses specifically on the role of local authorities and local energy communities as 'privileged partners' in the local energy transition (cf. Introduction), in both a normative and pragmatic sense:

• In a **normative sense**, collaborations between local authorities and local energy communities are needed to uphold principles of energy democracy and participatory

¹¹ **'Local authority'** refers to any local or regional institutional actor that has an official political mandate. Think of e.g., a municipal administration or council, a local energy agency, etc. For the purpose of the OCM, **'energy community'** is defined broadly, as a network of local actors that work together on a common goal or problem broadly related to the local energy transition. This can be a formal renewable energy community as defined by the Recast of the European Renewable Energy Directive (EU/2023/2413), but also an informal network of volunteers that offers advice on energy savings to other community members.



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decision-making, ensuring that the energy transition initiative supported by the collaboration reflects the diverse interests and values of the community it serves.

• In a **pragmatic sense**, collaborations between local authorities and local energy communities are needed to ensure alignment with local needs, regulations, and resources, fostering greater community support and sustainable outcomes.

Taking into account the normative and pragmatic considerations, collaboration between local authorities and local energy communities can vary from one context to another. Some local authorities opt for a more **hands-off approach**, e.g., providing financial subsidies, arranging meeting spaces, or facilitating the gathering of key community members. Alternatively, a **hands-on approach** could involve, e.g., the active participation of local authorities in a local energy community as a member or shareholder and/or investment in renewable energy infrastructure. In a similar sense, energy communities can take on a more **passive** (e.g., supporting an energy transition initiative by promotion) or **active** (e.g., organizing a crowdfunding campaign to enable citizen ownership of a renewable energy infrastructure) role in the local energy transition. In the spectrum between these extremes, numerous collaborations exist, offering a range of options to accommodate the diverse needs and capacities of both entities. The OCM refrains from adopting a predetermined stance on the types of collaborations to be encouraged, as long as they contribute to the objective of creating multiple, shared, and collective value.

In sum, the objectives of the OCM are:

- To support the establishment of a collaborative network between local authorities and energy communities (and possibly other partners) that **creates multiple**, **shared**, and **collective value** for all parties involved.
- To help local authorities and energy communities in **aligning collaborations with** local needs and capacities.
- To take a **dynamic** and **iterative approach to value creation**, acknowledging the fact that collaborations between local authorities and energy communities can change as the value network develops from a concept into a concrete pilot or project. Furthermore, a collaboration in-the-making will frequently have to retrace its steps, e.g., by taking a reflexive step back from the implementation of a concrete project to examine the concept behind it.

1.3 Scope

The TANDEMS Open Collaboration Model (OCM) aims to help local authorities and energy communities to set up a collaboration that is beneficial for both parties and the local energy transition, while being mindful of the local context. The OCM is based on the growing body of scientific literature on energy communities, next to an in-depth investigation of the 'learning histories' of 4 TANDEMS pilots (cf. Deliverable 2.3).¹²

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¹² More details on the learning history workshop methodology can be found at <u>https://coda.io/@vito/nexuslearn/learning-history-workshop-101</u>

A lot of information and tools are already available that indicate how local authorities can support energy communities, e.g., on the websites of EU networks active in the local energy transition, such as **Energy Cities**¹³ or the **Energy Community Platform**,¹⁴ a one-stop-shop hosted by REScoop.eu that gathers information, tools, best practices that have been developed in EU-funded projects. Also of interest is the **Community Energy Municipal Guide** developed by the SCCALE 20 30 50 project, which compiles a detailed description of actions that can be undertaken by governments at distinct levels to support energy communities.¹⁵ The **Toolbox of the European Energy Communities Repository**¹⁶ provides a link to all the tools that have been developed in the context of EU research initiatives to support energy communities.

While we certainly encourage the users of the OCM to consult these sources of information, the OCM takes a distinctive approach in facilitating collaboration between local authorities and energy communities. The above-mentioned references share the same limitation: they list numerous policy instruments that help to establish energy communities as important partners in the energy system without offering insight into adapting and combining these instruments to suit specific local circumstances. In contrast, our OCM presents local authorities and energy communities with a versatile guidance that includes guiding questions, tools, and examples, allowing the users of the model to customize and fine-tune their collaboration strategies to the specific local context. Compared to other toolkits, the OCM starts from an 'organic' perspective, in the sense that it aims for creating the right structural conditions so that collaborations can 'grow', rather than seeing these collaborations as the result of 'mechanic' interventions ('by using policy instrument x, you will take away barrier y'). Therefore, the OCM does not intend to (and cannot) be a rigid, off-the-shelf universally applicable blueprint. Local circumstances across the EU are highly diverse, and the OCM acknowledges this diversity. By emphasizing adaptability and customization, the OCM aims to empower users to navigate the intricacies of their collaborations, recognizing that there is no onesize-fits-all approach.

The following sections discuss the general concept and set-up of the OCM (Section 2) and the model itself (Section 3). This deliverable contains the 'blueprint design' of the OCM – i.e., the general structure or skeleton. Further refinement of and additions to the model will be made in the coming 18 months (April 2024-September 2025) as the model will be tested out in several TANDEMS pilot projects. Furthermore, WP5 will channel the outputs of these tests towards Task 5.1 ("Facilitation of a dialogue among different actors involved in community projects"). This task will set the scene for the outputs of the research work to be presented with the pilot activities within at least 5 national events and official statements within open public consultation procedures (1 per country), targeting the forthcoming updates of the National Energy and Climate Plans and the adoption of the relevant EU legislation. A final version of the OCM will be available at the end of the TANDEMS project (September 2025).

¹⁶ <u>https://energy-communities-repository.ec.europa.eu/energy-communities-repository-support/energy-communities-repository-toolbox-0_en</u>



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¹³ <u>https://energy-cities.eu/hub/community-energy/</u>

¹⁴ <u>https://energycommunityplatform.eu/</u>

¹⁵ https://www.sccale203050.eu/wp-content/uploads/2022/12/SCCALE-Municipal-Guide-Final-view.pdf

2 THE OPEN COLLABORATION MODEL: CONCEPT AND SET-UP

2.1 Conceptual framework: the value network

The OCM draws upon transition theory and is more specifically built around the central concept of the **value network**. A value network represents the interconnected system of actors (i.e., organizations or individuals) involved in the production, distribution, and delivery of values to the community. In the context of a value network, a **value** refers to the benefits, advantages, or contributions that each actor within the network provides or receives. These values can be material (e.g., a rooftop, a PV installation, a subsidy) or immaterial (e.g., legitimacy, empowerment) and are exchanged or shared among network actors to achieve mutual benefits. The values created and exchanged in a local energy initiative commonly fall under the following categories:

Natural values

• land for building renewable energy infrastructure, clean water, forests, biodiversity, and clean air.

Infrastructure values

• the built infrastructure within a community, including buildings, roads, bridges, utilities, transportation systems, and public facilities.

Financial values

• monetary resources such as savings, investments, income, grants, subsidies and access to financial institutions.

Human values

• knowledge, skills, talents, and capacities of individuals within a community.

Social values

• the relationships, networks, trust, and social cohesion within a community.

Cultural values

• the shared values, traditions, beliefs, customs, languages, arts, and cultural heritage within a community.

Political values

• democratic decision-making processes, legitimate authority, and civic engagement within a community.



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2.2 Methodology: value network mapping

Overall, a value network operates as a collaborative ecosystem where various actors work together to create, deliver, and capture value, ultimately contributing to the success and sustainability of the network as a whole. The <u>value network mapping methodology</u> (as developed by the VITO NEXUS team in the context of the Climate-KIC)¹⁷ visualizes the roles fulfilled by various actors in the value network (e.g., provider of land, installer of a PV installation, operator of the electricity distribution network, etc.) and the exchanges of values between them (e.g., the provider of land leases a piece of land to a wind energy developer, who pays a monthly lease) (cf. Figure 1).

relations/#:~:text=Value%20Network%20Mapping%20helps%20in,individual%20needs%20with%20wi der%20ambitions), and has been mentioned in the OECD Working Papers on Public Governance No. 63 (https://www.espas.eu/files/OECD-September-2023.pdf).



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¹⁷ Value network mapping has been identified by the OECD's Observatory of Public Sector Innovation as a valuable method (<u>https://oecd-opsi.org/toolkits/value-network-mapping-a-method-for-unravelling-system-</u>

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Figure 1: Example of a value network (collective renovation as implemented by Klimaatwerf / Burenwerf)

Broadly, in a value network three different categories of actors can be identified:

- Actors that create value: These are the actors within the value network that contribute their resources, capabilities, and expertise to produce value. For example, a supply company provides PV panels, an installer installs the PV panels on the roof of a public school, and the distribution system operator connects the installation to the local grid. Each of these actor adds value through their unique contribution to the value creation process.
- Actors that deliver value: These are the actors within the value network that are
 responsible for distributing and delivering the value (e.g., goods or services) to the endusers or customers of the value network. A good example is the energy supply
 company that buys the excess electricity production from the PV panels. These actors
 play a crucial role in ensuring that the value created by the network reaches its intended
 recipients in a timely and efficient manner.



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• Actors that receive value: These are the end users who derive value from the products or services provided by the value network. They benefit from the quality, features, functionality, and overall value proposition offered by the network. In our example, the end users are the customers of the energy supply company who buy their electricity from this company.¹⁸

Some of the roles in the value network can in principle be filled in by many different actors (e.g., in a liberalized energy market, different energy supply companies can fill in the role of 'energy supplier'). In contrast to this group of interchangeable actors, there is a group of actors that cannot (easily) be replaced either because they are the **only possible actor to perform a crucial role in value creation** (e.g., a distribution system operator has a 'natural monopoly' for distributing electricity in a regional network) and/or because **they embody the core values of the entire network**. In the OCM, we call the latter actors the **JET-pioneers**.

2.3 Target users: JET-pioneers

The OCM's target users are Just Energy Transition-pioneer teams, or in short, **JET-pioneer teams**. The JET-pioneer team is composed of the core actors involved in creating multiple, shared, and collective value to the community. We deliberately chose the 'JET' acronym to convey the following messages:

- The 'JET' acronym is inspired by the **analogy between the complexity of changing the energy system and rebuilding an airplane in full flight**. Indeed, the energy transition requires a comprehensive transformation of how we produce, transmit, and use energy, without disrupting the constant energy supply. This message is not meant to discourage potential JET-pioneers, but merely to point out that they should keep a close eye on the feasibility of their interventions and be prepared to face substantial systemic challenges along the way.
- The JET-pioneer team not only steers towards the **common goal of accelerating the energy transition** (i.e., saving energy, using energy efficiently, and replacing fossil energy sources by renewable ones), but also strives to do this **in a just way** (i.e., by making sure that nobody is excluded from the benefits of the energy transition, and that these benefits (and burdens) are distributed in a fair way). This means that the JETpioneer team should commit itself to:¹⁹
 - **Multiple value creation**: the JET-pioneer team strives to set up collaborations that realize social, economic, and ecological value at the same time.
 - **Shared value creation:** the JET-pioneer team strives to set up collaborations that lead to a fair sharing of values within the community.

¹⁹ The goal of creating multiple, shared and collective value should be interpreted as aspirational, recognizing that its realization may not be guaranteed in practice, as in most cases trade-offs will need to be considered. In any case, the collaboration should go beyond creating only economic value.



¹⁸ A particular actor can belong to more than one category – e.g., a prosumer creates and receives value at the same time.

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• **Collective value creation**: the JET-pioneer team strives to set up collaborations based on the principles of co-creation and equitable engagement in value delivery.

The role of the JET-pioneer team is **not necessarily linked to a particular institutional affiliation**. The OCM thus refrains from adopting a position on whether the initiative should originate from the local energy community, the local authority, or any other actor engaged in the local energy transition. Thoughtful leadership can come from many corners of society, though it helps if the JET-pioneer team has **access to necessary resources** (time, expertise, money, social network, etc.) and **the capacity to bring together a collective of local actors** (e.g., individual citizens, local organizations, neighborhood ambassadors, social workers, local administrators, etc.) around a common purpose. Examples of JET-pioneer teams could be:

- A team of civil servants within a local government, driven by the ambition to rally the local community and expedite the local energy transition.
- A local civil society organization, collaborating closely with the local government on an energy-related topic (e.g., air pollution caused by heating installations), and now eager to participate in a community energy initiative.
- A social housing organization committed to alleviating energy poverty among its residents and embarking on initiatives aligned with local climate objectives.

The **membership of the JET-pioneer team is not cast in stone**. Its composition can change over time, from an embryonal team of trailblazers with first ideas about how to accelerate the energy transition in a particular locality, to an established network of actors involved in the day-to-day delivery of value to the local community through a concrete energy-related initiative. What matters most is that the JET-pioneer team acts as the initial spark and the fuel that keeps the collaboration going.

2.4 Steps in the OCM

The OCM assists the JET-pioneer team in navigating through the process of (re)designing a value network centered on creating and delivering multiple, shared and collective value through a local energy initiative. It consists of four different steps:²⁰

1. **Discover**: In the Discover step, the JET-pioneer team engages in comprehensive exploration and analysis to uncover existing strengths, resources, and opportunities within the community relevant to the local energy transition. This involves mapping the existing value network(s) to gather insights, identify key actors, and understand community needs and aspirations related to various energy-related issues. The goal is to gain a holistic understanding of the local context.

²⁰ The four steps are inspired by the method of appreciative inquiry. For a good introduction to appreciative inquiry, see Hammond, S. A. (1998). The thin book of appreciative inquiry. Thin Book Publishing Co. Other recommended readings are Cooperrider, D. L., & Whitney, D. K. (2005). Appreciative inquiry: A positive revolution in change. Berrett-Koehler Publishers; Bushe, G. R. (2013). The appreciative inquiry model. In Organizational change (pp. 129-158). Routledge; and Watkins, J. M., & Mohr, B. J. (2001). Appreciative inquiry: Change at the speed of imagination. Jossey-Bass.



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2. **Dream**: In the Dream step, the JET-pioneer team envisions an ideal future for a local energy transition initiative. Building on the insights gathered during the Discover step, the team engages in creative and aspirational thinking to imagine possibilities, set ambitious goals, and articulate a shared vision for the initiative. This involves brainstorming sessions on shared values and principles for the initiative and visioning exercises to create a concrete image of the initiative upon successful implementation. The emphasis is on fostering optimism, inspiration, and collective imagination to drive motivation and commitment.

3. **Design**: In the Design step, the JET-pioneer team collaborates to translate the shared vision and aspirations into concrete plans, strategies, and actions. Drawing on the insights from the Discover and Dream steps, the team engages in strategic planning, problem-solving, and co-creation activities to develop a new value network centered on a concrete energy transition initiative. This includes defining roles and responsibilities, allocating resources, and establishing mechanisms for collaboration and coordination among the JET-pioneer team. The focus is on ensuring alignment with the overall vision, addressing potential challenges, and maximizing opportunities for value creation.

4. **Deliver**: In the Deliver step, the JET-pioneer team implements and operationalizes the plans and strategies developed in the Design step. This involves executing identified initiatives, mobilizing resources, and leveraging partnerships to bring the vision of the value network to fruition. The team members work collaboratively to overcome obstacles, monitor progress, and make adjustments as needed to ensure successful delivery of outcomes. The emphasis is on action, implementation, and continuous improvement, with a focus on achieving tangible results that contribute to the local energy transition objectives and create value for the community.



Figure 2: The 4 steps of the Open Collaboration Model

It is, however, not obligatory to follow each of the above-mentioned steps in the sequence they are presented here. Depending on the local circumstances, **one or more steps might be skipped**. For example, if a local authority already collaborates with energy communities and wants to start a renewable energy project that has already been implemented multiple times at national or regional level (e.g., collective solar roof projects in the Netherlands), the JET-pioneer team can go straight to the Deliver step. Furthermore, the **iterative nature of the OCM** should be underlined, in a spirit of continuous reflexive monitoring of the ongoing activities (cf.



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TANDEMS Deliverable 2.3). An ongoing collaboration will frequently have to retrace its steps, e.g., by taking a reflexive step back from the implementation of a concrete project to examining the conceptual value network behind it. A collaboration in the Deliver stage could, for instance, revisit the Discover step to check whether the energy initiative is still delivering value as planned. In other words, the JET-pioneer team should 'mix and match' the steps to the needs of the question at hand.

2.5 Meet BART



Figure 3: BART – your step-by-step guide through the Open Collaboration Model

Taking up the role of a JET-pioneer team can certainly be a daunting task. Luckily, you will have a fictional assistant along your side. Our **'Boundary-spanning Action Reflexive Tutor'**, or in short, BART, guides the JET pioneer team through the 4 steps of (re)designing a value network. Throughout this process, your assistant BART is committed to the following principles:

 Boundary-spanning: BART will help the JET pioneer team to assume the role of a boundary spanner, i.e., a network player with the capability or explicit mandate to step outside the boundaries of the own organization or sector, to establish cross-links within the network.²¹ Activities of the boundary spanner include e.g., the creation and maintenance of networks that extend across traditional organizational or social boundaries, bridging

²¹ Tess Hitchins, Raf Pauly, Filip De Rynck & Bram Verschuere (2020). Energiecoöperaties en lokale besturen in Vlaanderen [Energy cooperatives and local authorities in Flanders]. CSI Flanders, available at <u>https://middenveldinnovatie.be/sites/default/files/2020-01/Casestudy%20Energieco%C3%B6peraties%20Definitief.pdf</u>



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gaps between different perspectives, bringing people from different backgrounds together in a co-creative setting, etc.²²

- Action: BART is aware that too much analysis can lead to paralysis. Therefore, BART's guidance is always aimed at increasing the JET pioneer team's capacity for action.
- **Reflexive**: BART will help the JET pioneer team to understand the system, and recognize and critically analyze their own role, perspective, potential biases, and influence within a given social context. Always with a view to increase transformative capacity.
- **Tutor**: BART will guide the JET pioneer team through the OCM not by giving prefabricated answers, but by asking guiding questions. These questions serve to direct the inquiry, prompting deeper thought and fostering individual curiosity and creativity. BART's approach is tailored to the specific stage of collaboration development, the collaborative objectives, and the unique context of the project. Essentially, BART functions more as a tutor than a teacher, supporting the JET pioneer team in their own learning journey.

In short, BART takes the JET-pioneer team in a systematic way through the four stages of (re)designing a value network for an energy transition initiative based on a collaboration between local authorities and energy communities. BART does this by asking guiding questions and giving the JET pioneer team the tools and inspirational examples to answer these questions.

²² For a thorough exploration and discussion of the boundary-spanning role, see Ingmar Van Meerkerk (2014). Boundary Spanning in Governance Networks. A study about the role of boundary spanners and their effects on democratic throughput legitimacy and performance of governance networks. Erasmus Universiteit Rotterdam, Rotterdam.



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3 THE OPEN COLLABORATION MODEL: STEP-BY-STEP GUIDANCE

3.1 Discover

What?	•The discover step of the OCM helps the JET-pioneer team to discover concrete opportunities for providing shared, multiple and collective value to the community through a collaboration between local authorities and local communities.
Why?	•The discover step in the OCM is crucial as it sets the foundation for the entire process by uncovering existing strengths, weaknesses, opportunities and treaths within the local energy context. It enables the JET-pioneer team to build on positive aspects and address the current weaknesses of local energy transition initiatives.
How?	•BART assists the JET-pioneer team in mapping the current value network by conducting interviews, surveys, or group discussions, with a focus on overall value creation, actor engagement and local governance. This process allows the JET-pioneer team to uncover the problem they wish to tackle.
When?	•It is essential to engage in the discover step when there is a need to understand the current state of the local energy transition, identify strengths, weaknesses and opportunities, and lay the groundwork for envisioning a positive future direction.

3.1.1 Introduction

The Discover step of the OCM assists the JET-pioneer team in defining a clear opportunity for delivering shared, multiple and collective value to the community through an energy transition initiative by analyzing the existing value network, assessing its strengths, weaknesses, opportunities, and threats (SWOT). JET-pioneer team enters this step with a **preliminary idea of the scope** of their initiative, often informed by sources like a local municipal climate and energy action plan outlining priorities for the energy transition, or a techno-economic assessment detailing opportunities for developing renewable energy infrastructure, such as land availability for wind farms or rooftops suitable for PV installations. Some common scopes for community energy initiatives are:

- Establishing a **community-owned PV project** to generate electricity (possibly combined with self-consumption or energy sharing).
- Collaborating to build and operate a **community-owned wind farm** to harness wind energy (possibly combined with self-consumption or energy sharing).
- Undertaking initiatives to **improve energy efficiency** in residential, commercial, and public buildings within the community.



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- Guaranteeing access to **cheap locally generated renewable energy** for vulnerable customers in the local community.
- Developing a **community-scale district heating system** to provide renewable heat for a neighborhood.
- Developing **renewable energy infrastructure** (possibly combined with selfconsumption or energy sharing) for a **sustainable business park**.
- Developing a **local microgrid** or 'virtual power plant' to enhance energy resilience and enable decentralized energy generation and distribution.
- Implementing **programs to educate community members** about energy saving, energy efficiency or renewable energy technologies.
- Installing charging stations and promoting electric vehicle adoption within the community.
- Investing in community battery storage systems or other energy storage technologies to store excess renewable energy for later use by the community.
- Establishing **community biogas facilities** to convert organic waste into renewable energy for cooking, heating, or electricity generation.

These are just a few examples of community energy projects that can empower local communities to take control of their energy future, some of which are explored in the TANDEMS pilots (cf. WP3).

3.1.2 Mapping the current value network

Having selected a scope for an energy transition initiative, the JET-pioneer team starts by **mapping out the value network that reflects the current dominant way of delivering value** in the initiative of choice. For example, imagine a common value network for setting up a local public information campaign on energy-efficient retrofitting of houses. Key actors typically include local authorities, energy efficiency organizations (public or private), construction companies, and energy utilities. Local government authorities would provide support and resources to launch the campaign (e.g., by organizing information sessions in different neighborhoods), while energy efficiency organizations would offer expertise and guidance on retrofitting options. Construction companies would implement the retrofits, with utilities potentially offering incentives or rebates. It is recommended that the **core actors involved in the current value network contribute to this mapping**, either directly (by participating in the value mapping workshop) or indirectly (by being interviewed or consulted by the JET-pioneer team before the value mapping exercise).

Mapping the current value network is a crucial step when (re)designing a value network for several reasons:

- **Understanding current dynamics**: A value network map provides a comprehensive overview of the existing interactions and flows of value among actors in the network. This understanding is essential for identifying inefficiencies, bottlenecks, or areas of improvement within the current system.
- Identifying key actors and roles: Mapping the value network helps to identify the key actors and their roles within the network. This insight enables organizations to



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understand who engages in the value creation process, their contributions, and dependencies.

- **Visualizing interdependencies**: It helps visualizing the interdependencies and connections between different actors and roles in the value chain. Allowing organizations to identify critical dependencies and potential points of failure or risk within the network.
- **Spotting opportunities for innovation**: By analyzing the current value network, opportunities for the creation of shared, multiple and collective value can be identified. This may involve identifying new partnerships, new roles, or leveraging emerging technologies to enhance value creation and delivery.
- Informing (re)design decisions: Mapping the current value network provides valuable insights that inform decision-making during the (re)design process. It helps to prioritize areas for improvement, define objectives, and develop strategies to achieve desired outcomes effectively.
- Engaging other actors: Mapping the current value network facilitates actor engagement and buy-in by providing a shared understanding of the current state. It allows other actors to participate in the (re)design process, contribute their insights, and align on common goals and objectives.

The <u>value network mapping tutorial</u> gives **concrete step-by-step instructions** on how to map the current value network with regard to the roles and the value exchanges. This step culminates in a SWOT-analysis of the current value network. BART's guiding questions help the JET pioneer team to make this SWOT analysis by delving deeper into the role of different local actors that make up the current value network and the functioning of local governance.



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3.1.3 SWOT analysis of actors in the current value network

BART's guiding questions:

1. Are certain local actors excluded from value creation by the current network?

Explanation: In light of possibly redesigning the current value network, it is important to understand whether there is an 'marginalized audience' that at present does not benefit from value creation, and why this is the case.

2. Do the actors engaged in the current value network create economic, ecological AND social value for the local community?

Explanation: Think about to what extent the current value network creates social, economic as well as ecological value. Is the value creation in these three dimensions equally strong, or is value creation unevenly spread over the dimensions?

3. Does each actor engaged in the current value network get its fair share of the value created?

Explanation: To ensure fairness in value distribution, assess whether each actor in the network receives proportionate benefits relative to their contribution and role in value creation.

4. What are the opportunities and threats to the current value network in terms of actors entering or leaving the network, or modifying their level of engagement in their role?

Explanation: This question gauges the extent to which the current value network can withstand disruptions in the actor composition or engagement.

The value network map shows the link between different actors involved in the current value network in terms of the roles they play (or functions they fulfil) and the relationships between them (in terms of the values that are exchanged). The guiding questions listed in this section help the JET-pioneer team to assess the **strengths**, **weaknesses**, **opportunities and threats of the current value network**. The results of this evaluation can be recorded in a systematic way in Table 1 and Table 2.

(Local) actor	Role	Alignment between role and mission	Contribution to value network	Value received in return	Overall evaluation of actor
X		Weak/strong	Insignificant/ significant	Unbalanced/ balanced	
У		Weak/strong	Insignificant/ significant	Unbalanced/ balanced	

Table 1: Actor assessment in the current value network



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3.1.4 SWOT analysis of local governance

(Local) governance refers to the **formal and informal rules that guide decision-making, administration, and implementation of actions** in the current value network. (Local) governance plays a crucial role in shaping decision-power balances, sharing and/or dividing resources and responsibilities, and setting up accountability for actions. The guiding questions listed in this section help the JET-pioneer team to assess the strengths, weaknesses, opportunities and threats of the current value network governance. The results of this evaluation can be recorded in a systematic way in Table 3.



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BART's guiding questions:

1. How are power and authority distributed in the current value network?

Explanation: In light of possibly redesigning the current value network, it is important to understand the distribution of power and authority among actors (e.g., who is represented in boards, committees), and the representation of different interests and perspectives. Possible weaknesses can relate to an unequal distribution of power/authority, or underrepresentation of certain interests.

2. What do (local) authorities contribute to the current value network?

Explanation: Think about e.g., subsidies, market regulation, organizing public participation, information campaigns, etc. Possible weaknesses can for instance relate to a lack of 'voice' of local actors in official participation mechanisms, or a lack of financial support.

3. What are the accountability mechanisms put in place in the value network?

Explanation: Assess how stakeholders are held accountable for their actions and decisions, including monitoring, reporting, and performance evaluation processes. Possible weaknesses can relate to a lack of accountability for certain actors.

4. What are the opportunities and threats to the current value network in terms of changes in the local governance?

Explanation: This question gauges the extent to which the current value network can withstand disruptions in the governance of the network. Think of e.g., local elections, budget cuts, etc.

Table 3: Governance SWOT analysis in the current value network



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3.1.5 Completing the Discover step

At the end of the Discover step, the JET-pioneer team should be able to define a clear opportunity for delivering shared, multiple and collective value to the community through an energy transition initiative by analyzing the existing value network, assessing its strengths, weaknesses, opportunities, and threats (SWOT). The definition of this opportunity should:

- Be **clear and unambiguous**, leaving no room for misinterpretation or confusion;
- Have a **specific focus** without being overly broad or vague;
- Be **relevant** to the JET-pioneer team's concerns;
- Lead to actions that are **realistically achievable** within the resources, constraints, and timeframe available, avoiding overly ambitious or impractical goals;
- Take into account the **perspectives**, **needs**, **and priorities** of the local community, ensuring their engagement and buy-in throughout the problem-solving process;
- Demonstrate a thorough understanding of the local policy context.

A (fictional) example of a good opportunity definition could be the following:

"Within our community, there is a pressing need for increased access to cheap renewable electricity, particularly among low-income households and renters who face financial barriers to invest in their own renewable energy production. Despite the potential benefits of solar energy, including cost savings and environmental sustainability, limited awareness, upfront installation costs, and regulatory challenges impede adoption rates. As a result, many residents remain reliant on electricity offered by traditional energy suppliers, contributing to high energy costs and carbon emissions. Addressing these barriers and promoting equitable access to renewable electricity is essential to advancing our community's energy transition goals and ensuring a more sustainable future for all residents."

As a result of the Discover step, it is also conceivable that the **original JET-pioneer team expands** to include actors from the existing value network who express a desire to contribute to the solution to current perceived problems. With a clear opportunity at hand, the (expanded) JET-pioneer team is now ready to tackle the next step.



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3.2 Dream

What?	•The dream step entails collectively imagining and articulating a shared vision of what the community energy initiative could look like in its most positive and desirable form.
Why?	•The purpose of the dream step is to inspire and motivate local actors by focusing on possibilities, potential, and positive aspirations. By envisioning a compelling future vision, local actors are encouraged to think creatively and ambitiously about the possibilities for a just energy transition initiative within the community.
How?	•The dream step is facilitated through participatory processes such as visioning workshops, brainstorming sessions on values, and storytelling exercises. Local actors are encouraged to share their dreams and aspirations for the community's energy future, with an emphasis on exploring innovative ideas and bold solutions.
When?	•The dream step serves as a bridge between the exploration of current realities and the co-creation of a shared vision for the future, providing a positive and forward-looking perspective to guide subsequent planning and action.

The Dream step aims at defining **the fundamental beliefs or values that guide decision making and actions** related to the community energy initiative. These values function as a **moral compass** for strategic decisions and actions. Regardless of where the JET-pioneer team stands, the compass needle gives a clear orientation towards the final goal. One can think for instance of the 7 principles for cooperative organizations, as defined by the International Cooperative Alliance (ICA).²³ Furthermore, the fundamental values help to **establish leadership**. A set of guiding values gives the JET-pioneer team a clear identity, based on the fundamental values it upholds. This identity differentiates your energy community initiative from 'the crowd' – i.e., the traditional way of thinking, deciding and acting in the energy sector. Guiding values also help in **reaching out to wider audiences**, as they clearly communicate what the JET-pioneer team stands for. They can also help in attracting new actors to join the JET-pioneer team, based on a shared value orientation.

3.2.1 Defining guiding values

Guiding values need to be collectively supported within the JET-pioneer team and provide a clear orientation for the community energy initiative. Co-creating such principles is not something that happens from one day to another, e.g., in one workshop. Defining and refining guiding values is therefore essentially part of an iterative process. In view of collective

²³ <u>https://www.ica.coop/en/cooperatives/cooperative-identity</u>



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ownership, it is recommended to **involve potential core and key actors of the value network** in workshops or forums where the core values of the energy initiative are defined. For getting

BART's guidance:

1. **Highlight the benefits of community energy initiatives**: Showcase successful examples of community energy projects from other regions or municipalities to demonstrate the potential benefits, such as economic growth, job creation, energy security, and environmental sustainability. Illustrate how local authorities can play a pivotal role in realizing these benefits.

2. **Align with municipal priorities**: Frame the discussion around how the community energy initiative aligns with the strategic priorities and goals of the local authorities. Emphasize how renewable energy projects can contribute to achieving objectives related to climate action, sustainable development, and community resilience.

3. **Empower local authorities as champions**: Recognize the leadership role that local authorities can play in championing community energy initiatives within their jurisdictions. Provide opportunities for them to take ownership of specific aspects of the vision and to advocate for supportive policies and resources at the municipal level.

local authorities on board, BART's guidance in the box can help.

The <u>NEXUS tool for guiding principles</u> can be used to define the fundamental values for the local energy initiative. Basically, this tool contains instructions for group discussions in a workshop setting that will lead to the definition of a common set of guiding values. Inspirational examples of guiding values for community energy initiatives include:

- Economic Value:
 - Cost savings for participants: Community energy initiatives can lead to reduced energy bills for participants through collective purchasing of energy or energy sharing, energy efficiency measures, and renewable energy generation, resulting in economic savings for households and businesses.
 - Revenue generation: Community-owned renewable energy projects, such as solar or wind farms, can generate revenue through the sale of electricity to the grid or through community-based energy trading platforms, providing additional income streams for the community.
- Social Value:
 - **Community empowerment**: Energy community initiatives empower residents to take ownership of their energy future, fostering a sense of pride, autonomy, and self-reliance within the community.



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- Social cohesion: Collaborative decision-making and collective action around energy issues can strengthen social bonds and foster a sense of solidarity, trust, and cooperation among community members.
- **Energy equity**: Energy community initiatives promote energy equity by ensuring access to affordable, reliable, and clean energy for all members of the community, regardless of income level or social status.
- Ecological Value:
 - Carbon emissions reduction: Renewable energy projects implemented through energy community initiatives contribute to the reduction of greenhouse gas emissions by displacing fossil fuel-based energy sources, mitigating climate change, and improving air quality.
 - Resource conservation: Energy efficiency measures and renewable energy technologies deployed through energy community initiatives promote resource conservation by reducing energy consumption, minimizing waste, and preserving natural resources for future generations.

3.2.2 Envisioning the future value network

Once the fundamental values are settled, the JET-pioneer team (by now preferably including core and key actors, local authorities and members of the local energy community) can engage in envisioning the future value network. The future value network maps the value streams between different actors taking on the necessary roles to deliver the values of choice. The <u>value network mapping tutorial</u> contains detailed instructions on how to (re)design a value network in terms of the roles to be filled in by the actors and the value exchanges between them.

3.2.3 Completing the Dream step

The outcome of the Dream step in the OCM is the articulation of a shared vision and an aspirational future value map. This future map represents an idealized image of what the JET-pioneer team hopes to achieve, encompassing desired outcomes, roles, and values. By collectively envisioning a positive and inspiring future state, a guiding beacon is created that informs subsequent planning and action steps in the community energy initiative. To complete the Dream step, the JET-pioneer team should consider to write down everything they learned in this step in an engaging storyline (the <u>storytelling canvas</u> can be used for this). Storytelling simplifies complex ideas and concepts by contextualizing them within relatable narratives. By presenting abstract principles and theories in a concrete and accessible format, storytelling helps to communicate key insights and lessons more easily.



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3.3 Design

What?	•The design step focuses on developing concrete plans and actions to realize the desired future state envisioned during the dream step. It involves identifying specific goals, objectives, and actions that align with the values of the community energy initiative.
Why?	•The purpose of the design step is to bridge the gap between vision and action. By translating aspirations into tangible actions, the design step empowers the JET-pioneer team to turn their vision into reality and drive meaningful progress in the community energy initiative.
How?	•The design step contains practical guidance that helps the JET-pioneer team to select the right (community) actors and local authorities for filling in the roles of the desired future value network. It also explains the role of local governance and highlights strategies to counter resistance.
When?	•The design step marks the transition from envisioning to action planning, signaling the beginning of the implementation step where concrete steps are taken to realize the desired future state of the community energy initiative.

In the Design step, the focus shifts to crafting actionable plans and strategies that translate the envisioned future state from the Dream phase into reality. This stage aids the JET-pioneer team in identifying and categorizing the actors slated to fulfil roles within the envisioned value network. Additionally, it outlines governance requirements necessary for the future network's establishment and devises strategies to address any potential resistance.

At the end of the Design step, the JET-pioneer team has:

- 1. Identified the actors that will fill in the roles of the future value network;
- 2. Determined how the desired future value network functions in practice;
- 3. Identified the first steps for implementing the desired future value network in practice.

3.3.1 Filling in the roles of the desired value network

Having (re)designed the value network map, the JET-pioneer team should scrutinize the **list** of potential actors to fill in the (new) roles identified in the value network. The potential risk in promoting a new value network lies in the rapid influx of diverse actors, including proponents, potential partners, and volunteers, alongside opportunistic individuals and free riders, once ideas are shared. While initial enthusiasm is common, the efficacy of the (new) value network hinges upon the collective investment of time and energy by its constituent actors. Consequently, as a JET-pioneer team, it is imperative to discern actors aligned with



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your shared values and commitments. As a JET-pioneer team, you need to ask yourself two key questions:

- 1. For which of the actors is the shared value (potentially) created of crucial importance?
- 2. Which of the actors is deeply committed to create this value in a collective way?

BART's guiding questions further help the JET-pioneer team to select the right actors for filling in the roles of the desired future value network.

BART's guiding questions:

- 1. Which parts of your value network can you manage and organize yourself (i.e., the JET-pioneer team), and which knowledge, experience, and skills do you need to acquire from the outside?
- 2. Are the guiding values of the community energy initiative really part of the 'DNA' of the (potential) partner? Or are they just willing to contribute because of a (temporary) alignment of interests?
- 3. Is there a willingness to collaborate on solutions to problems in the value network, even if these problems do not relate specifically to the envisaged role of the (potential) partner?
- 4. Is there a commitment in the long term? Can you establish and maintain a relationship with the (potential) partner?

Based on the answers to these questions, the JET-pioneer team should be able to assign potential partners to one of the following three categories:

- **Core actors**: without having these partners on board, it will be impossible to realize the new value network. Therefore, it is essential to focus on building good relationships between these partners, based on mutual trust, and on continuity of the collaboration.
- **Key actors**: these are partners that are needed for specific tasks or at specific stages of implementing the new value network, e.g., because they have specific skills or expertise. For these partners, it should be clear how, when and for how long they will be involved.
- **Contributing actors**: these are the partners that are not essential for the collaboration, but still may have some value in e.g., promoting the value network to a wider audience, or sponsoring from a distance.

Having classified the actors, a series of one-on-one talks or workshops with the potential actors should give the JET-pioneer team an answer to another set of guiding questions.



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BART's guiding questions:

- 1. Do the actor's resources and capacities match the envisaged role in the new value network?
- 2. If not, what are the requirements (in terms of resources, e.g., training, funding, additional manpower, etc.) for that actor to take up the envisaged role?
- 3. What are the concrete near-term actions to be undertaken to fulfill these requirements?

Results of this exercise can be recorded in Table 4, Table 5 and Table 6.

 Table 4: Core actor analysis of the new value network

Core actors	Reasons for classification	Role(s) in the value network	Requirements for taking up the role	Follow-up actions
х				
У				
Z				

Table 5: Key actor analysis of the new value network

Key actors	Reasons for classification	Role(s) in the value network	Requirements for taking up the role	Follow-up actions
х				
У				
Z				

Table 6: Contributing actor analysis of the new value network

Contributing actors	Reasons for classification	Role(s) in the value network	Requirements for taking up the role	Follow-up actions
x				
У				
Z				



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3.3.2 The role of (local) regulations

Having (re)designed the value network map, we invite the JET-pioneer team to scrutinize the regulatory implications of the new value network. Governance intervenes in the value network by:

- The roles played by institutional actors: these actors often work with an official mandate, written down in rules and regulations that govern their interactions with other actors. Sometimes, regulations also prescribe that certain roles should be present in a value network. For example, under the EU liberalized energy market regulations, each energy customer has the right to freely choose an energy supplier. A value exchange relationship with energy supply companies therefore is a mandatory part of each energy community's value network.
- The rules governing transactions between actors: value transactions are governed by (in)formal rules and regulations laying down, e.g., the obligations of the actors involved in the transaction, due delivery dates, means of verification, a conflict resolution scheme, etc.

BART's guiding questions:

1. Which roles do institutional actors take up in the (re)designed value network?

2.Which rules (laying down responsibility, accountability, decision power, etc.) govern the (most relevant) value exchanges between the actors in the (re)designed value network?

Table 7 and Table 8 can be used by the JET-pioneer team to systematically note down the governance implications of the new value network model, and the extent to which this creates new opportunities or barriers. The JET-pioneer team should think about the consequences of potential barriers or opportunities in terms of concrete follow-up actions to leverage opportunities or mitigate the barriers.

(Local) authority	Role	Official mandate	Potential barriers	Potential opportunities	Follow-up actions
X					
У					

Table 7: Governance evaluation of institutional roles in the new value network

Table 8: Governance evaluation of value exchanges in the new value network



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Value exchange	Actors involved	Applicable rules/regula- tions	Potential barriers	Potential opportunities	Follow-up actions
X					
У					

3.3.3 Overcoming resistance

Next to the actors of the (re)designed value network, it is also important for the JET-pioneer team to think about potential adversaries – i.e., opponents that stand to lose in case the (re)designed value network becomes a success. Here, we can distinguish between:

- **Passive Opponents:** Passive opponents are opposed to the initiative but are not actively engaged in efforts to block or hinder its progress. They may express their opposition through passive resistance, such as expressing concerns or reservations but not taking further action to oppose the initiative actively. Passive opponents may be less vocal or visible in their opposition compared to active opponents.
- Active Opponents: Active opponents are actively engaged in opposing the initiative and may take deliberate actions to obstruct, undermine, or challenge its implementation. They may organize protests, lobby decision-makers, file legal challenges, or mobilize public opposition to the initiative. Active opponents are more visible and vocal in their opposition, actively working to prevent the initiative from moving forward.
- Leading Opponents: Leading opponents are not only actively opposing the initiative but also hold significant influence or leadership positions within the stakeholder community. They may be influential community leaders, elected officials, prominent organizations, or key decision-makers whose opposition carries substantial weight and can significantly impact the initiative's prospects for success. Leading opponents may have the ability to mobilize broader support for their opposition efforts and shape public opinion or policy decisions related to the initiative.

Having identified the opponents to the community energy initiative, BART offers some strategic guidance for managing relationship with each of them.



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BART's guidance:

Passive Opponents:

- **ENGAGEMENT AND EDUCATION**: Proactively engage with passive opponents to understand their concerns and motivations. Provide them with relevant information, data, and evidence to address their doubts or reservations about the initiative.

- **BUILDING RELATIONSHIPS**: Invest in building positive relationships with passive opponents by listening to their feedback, acknowledging their concerns, and demonstrating empathy and understanding.

Active Opponents:

- **DIALOGUE AND NEGOTIATION**: Open channels of communication with active opponents to foster dialogue and negotiation. Listen to their concerns, address their grievances, and seek common ground or compromise where possible.

- **TRANSPARENCY AND ACCOUNTABILITY**: Maintain transparency and accountability in project planning and decision-making processes to build trust and credibility with active opponents. Provide opportunities for public input, feedback, and participation to demonstrate a commitment to fairness and inclusivity.

- **MITIGATION AND CONFLICT RESOLUTION**: Implement strategies to mitigate conflicts and resolve disputes with active opponents. Utilize conflict resolution techniques, mediation, or third-party facilitation to find mutually acceptable solutions and defuse tensions when needed.

Leading Opponents:

- **COALITION BUILDING**: Build alliances and coalitions with other actors who support your initiative and can help counterbalance the influence of leading opponents. Mobilize support from influential stakeholders, community leaders, or decision-makers to bolster your position and neutralize opposition.

- **STRATEGIC COMMUNICATION**: Develop strategic communication plans to effectively communicate your initiative's benefits, goals, and value proposition that undermine and delegitimize the leading opponents' position.

3.3.4 Completing the Design step

In the Design step of the OCM the JET-pioneer team (re)designs a value network based on the design requirements set out at the end of step 2. BART's guiding questions helped the JET-pioneer team in:



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- Selecting the right (local) actors for filling in the roles of the (re)designed value network and setting out a strategy to deal with potential opponents.
- Mapping the governance implications of the new value network and defining follow-up actions for opportunities and barriers.
- Making sure the right actors are 'on board' for creating wider systemic leverage and defining follow-up actions to develop or implement the new value network in practice.

Such actions can range from developing business models, applying for licenses to deploy renewable energy infrastructure for fostering community engagement, with each action being a concrete step towards the implementation of the desired future value network.



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3.4 Deliver

What?	•The deliver step involves the implementation of the strategies and actions identified and planned during the design step. It focuses on monitoring the execution of strategies, mobilization of resources, and engagement of actors to achieve the desired goals and objectives of the community energy project.
Why?	•By monitoring the execution of planned actions, the JET pioneer team can make sure that the community energy initiative moves closer to achieving its vision for a sustainable energy future.
How?	•By implementing a reflexive monitoring strategy, members of the JET-pioneer team collaborate to deploy resources, monitor progress, and overcome obstacles encountered during implementation.
When?	•The deliver step follows the design step and begins once plans and strategies have been finalized. It continues throughout the implementation of actions needed to realize the desired future value network, with ongoing monitoring, evaluation, and adjustment as needed to ensure progress.

Once strategies and actions are defined in the Design step, the Deliver step helps the JETpioneer team in monitoring the effectiveness of these strategies and actions for reaching the desired future end state. In the realm of project management, monitoring plays a pivotal role in ensuring success and achieving intended outcomes. The OCM follows a dual strategy for monitoring and evaluation namely result-oriented and action-oriented monitoring. Both approaches contribute to effective project management, catering to the diverse needs of community energy projects. On the one hand, the progress and impact of the community energy projects are followed up and evaluated by estimated and achieved key-performance indicators (KPIs). On the other hand, action-oriented monitoring assists the JET-pioneer team in reflecting on their activities and collaborations and make sure that short-term actions are aligned with the long-term goals.²⁴

3.4.1 Result-oriented monitoring

Result-oriented monitoring focuses on achieving predefined targets and evaluating progress against these predetermined benchmarks. This method follows a structured intervention logic or plan-monitor-evaluate cycle, emphasizing the importance of a well-defined project plan. Often, key performance indicators (KPIs) are defined to track progress and assess the efficacy of interventions. Result-oriented monitoring starts with clearly defined targets and a detailed

²⁴ Step 4 of the OCM is entirely based on information described in Deliverable 2.3 of the TANDEMS project. For more in-depth discussion of both strategies, we refer the reader to this deliverable.



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plan to reach these targets. This approach allows for a systematic assessment of community energy initiative success, providing project partners and other stakeholders with a clear understanding of the achieved outcomes in relation to the original objectives. The focus is on ensuring that the initiative stays on course and meets its predefined goals. More information on developing and applying KPIs can be found on <u>this website</u>.

3.4.2 Action-oriented monitoring

In contrast, action-oriented monitoring, also known as reflexive monitoring, takes a more **dynamic and adaptive** approach. Here, monitoring is not a separate activity but an integral part of the ongoing project process. This approach is particularly suited for projects where strategies evolve, targets shift during project development, and results manifest over the long term. Action-oriented monitoring is characterized by a **participative and inclusive** form of evaluation, involving relevant actors in the monitoring process. The goal extends beyond mere assessment to collective learning, allowing for adaptation of strategies based on evolving circumstances. In this approach, stakeholders contribute equally to monitoring aims to collectively define potential pathways for systemic change. This collaborative approach acknowledges the complexity of projects that depart from business as usual, recognizing that solutions and focal points may need to be redefined as the project unfolds. This requires a proactive engagement with emerging (systemic) challenges.

There are several formats to organize action-oriented monitoring. The OCM relies on the following tools to collect, analyze and share collective learnings and supported actions: the learning history workshop, systemic iceberg, bullet journal and dynamic learning agenda.

By means of a <u>learning history workshop</u> (e.g., half-yearly or yearly) significant events in the history of the community energy initiative can be mapped on a timeline. These are events that have advanced the project or are considered as an obstacle. Reflecting on these past pivotal moments can provide valuable lessons and insights in why certain actions fail and other are successful. Based on these insights new actions can be defined and monitored.

Utilizing the <u>systemic iceberg model</u>, second-order learning questions can be identified that have transformative impacts, changing underlying trends, structures, and mental models influencing behavior. This model metaphorically represents visible but superficial issues as the tip of the iceberg, with more influential systemic issues hidden below the waterline.

Relevant events and insights within innovation projects and (transition) experiments can be tracked in a <u>bullet journal</u>. Events can be logged individually or collectively, in real time or in retrospect. Keys are used to tag and categorize the bullets. A set of systemic categories, for example, inspired by the systemic iceberg (including 'trends', 'insights' and 'turning point') enables you to see the bigger picture (system) and monitor in a reflexive way. After logging events (e.g., daily or weekly), timeline meetings are organized to reflect collectively on the events (e.g., weekly or monthly) and built a dynamic learning agenda.

The dynamic learning agenda is a tool to record and trace the reflexive learning process. The agenda presents the critical turning points and connects these to learning questions and follow-



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up actions. The goal of the dynamic learning agenda is to link the long-term goals of the project to learning objectives and concrete short-term actions. The agenda is dynamic as it changes over time. Tracking the changes over time allows for readjustments: critical turning points and learning questions can be answered or reformulated, follow-up actions completed and new actions and learning questions added.

3.4.3 Completing the Deliver step

Completing the Deliver step of the OCM denotes the culmination of a structured implementation process guided by strategies and actions defined in the Design step. Throughout the Deliver step, the JET-pioneer team systematically monitors the execution of the actions outlined during the Design step, aiming to realize the envisioned future of the community energy initiative.



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List of participating organizations

KAMP	AUTONOOM PROVINCIEBEDRIJF		BE
duurzaam bouwen	KAMP C (Kamp C)		
	VLAAMSE INSTELLING VOOR		BE
	N.V. (VITO)		
DuneWorks	DUNEWORKS BV (Duneworks)		NL
ajem	ACHTERHOEKS ENERGIELOKET		NL
Energie voor mekaar.	B.V. (Agem)		
MECHELEN	STAD MECHELEN (MECHELEN)		BE
KLIMAAN	KLIMAAN (Klimaan)		BE
ZuidtrAnt	ZUIDTRANT (ZuidtrAnt)		BE
EnEffect	FONDATSIYA TSENTAR ZA		BG
	ENERGIYNA		
	EFEKTIVNOST - ENEFEKT		
	(EnEffect)		
	OBSHTINA BURGAS (BURGAS)		BG
<u></u>	MUNICIPALITY OF GABROVO		BG
3	(GABROVO)		
CHOPLUS	OIKOPLUS GMBH (OKP)	-	AT



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