AmsTErdam BiLbao cItizen drivEn smaRt cities

Deliverable 3.6: Lessons learned and experiences with the PED Innovation Ateliers

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DoA	The implementation of a Reflective Monitoring has a key role supporting the successful development and implementation of the Positive Energy Districts and its replication: • Introduce the reflective monitoring goals in relation the PED. • Introduce the Evaluation and Monitoring framework • Report on the main findings of the different activities performed in IA LHs. • Report on learnings about the Innovation Atelier concept and Monitoring activities		
Date	**Version**	**Author**	**Comment**
19/10/2022	0	Juanita Devis (AMS),	Table of content. First draft of deliverable
27/10/2022	1	Juanita Devis (AMS), Aranka Dijkstra (AMS)	Integration of previous reports
22/12/2022	2	Juanita Devis (AMS)	Integration of the monitoring framework and key indicators
18/01/2023	3	Juanita Devis (AMS) Jeroen Brower (TNO)	Integration of the key results of the monitoring cycles and content lessons learnt from the monitoring activities and IA
8/02/2023	4	Begoña Molinete Cuezva (EVE), Lennart Zwols (COT), Eva Winters (TNO)	Preliminary review
17/02/2023	5	Juanita Devis (AMS), Jeroen Brower (TNO)	Lessons learned about Implementing IA, Integration Annex about the Innovation activities
18/02/2023	6	Juanita Devis (AMS)	Executive summary, conclusions, and final description of the key components

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Abbreviations and Acronyms

Acronym	Description
EU	European Union
FC	Fellow city
GA	Grant Agreement
LH	Lighthouse city
PED	Positive Energy District
WP	Work Package
M&E	Monitor and Evaluation
IA	Innovation Ateliers
AIA	Amsterdam Innovation Atelier
BIA	Bilbao Innovation Atelier
COA	City of Amsterdam
COB	City of Bilbao
EVE	Basque Energy Agency
CEPV	Basque Energy Cluster
DBS	Deusto Business School
DEU	University of Deusto
TEL	Telur
IBE	Iberdrola
TEC	Tecnalia
TNO	Netherlands Organisation for Applied Scientific Research
WAA	Waag society
AMS	Amsterdam Institute for Advanced Metropolitan Solutions
RMA	Reflective Monitoring in Action

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Executive Summary

The ATELIER project aims at realising Positive Energy Districts (PEDs) in Amsterdam and Bilbao by demonstrating integrated smart urban solutions (technical, financial, legal, social), supporting the deployment of PEDs, and the replication of these solutions in 6 Fellow cities: Bratislava, Budapest Copenhagen, Krakow, Matosinhos and Riga. In this context, the Innovation Atelier supports these goals by enabling different city actors to learn, adapt and implement Positive Energy Districts in their specific city context.

This deliverable reports on the monitoring methodology and framework and on main findings of the monitoring activities (T3.3) conducted in the context of the implementation of the Innovation Ateliers (IAs) in the two Lighthouse cities: Bilbao (BIA) and Amsterdam (AIA).

Reflective Monitoring in Action (RMA) was adopted as the methodology to perform the monitoring activities in the two Lighthouse cities. The methodology proved to be effective especially if integrated to the project activities and when monitoring is performed in short cycles. In addition, to evaluate the different aspects of the implementation of the AIA and BIA, a conceptual framework consisting of six components, was defined. The framework focused on mapping the process, impact and success factors of the IA in the two Lighthouse cities. The framework and its key components proved to be efficient in supporting the identification of barriers, solutions and opportunities for replication.

From the outcomes of the three years of the monitoring activities, it emerges that Bilbao and Amsterdam followed two different approaches for the implementation of their own Innovation Ateliers. Bilbao defined its organization since the early stage, aligning the mission and vision with the city long term vision and to its energy transition strategy, and integrated key stakeholders in their core team. Amsterdam followed an iterative process focusing on doing-first and abstract later for the definition of its IA. The differences in approaches have been an opportunity to prove the replicability potential of the IA in different cities. This was proved by the replication of the organizational capacity of BIA in AIA. The challenges presented by Fellow cities in the implementation of their IAs further proved the relevance of Innovation Atelier concept.

By the end of the third-year monitoring activities, the Lighthouse cities presented two successful cases of IA implementation. The cases proved the relevance of IA in accelerating the implementation of PED and in supporting energy transition in a city. Both cities also presented convergent developments in the structure and effective operations possibly indicating the broad application and replicability of the Innovation Atelier concept. This is also supported by the fact that IA focuses on the conditions, organizations and steps that are required for its implementation rather than on the specific solutions developed in each pilot implementation.

Some of the key learnings that can be derived from the outcomes of the monitoring activities about the implementation of the Innovation Ateliers in Bilbao and Amsterdam can be summarized in: (1) engaging key stakeholders (quadruple helix) in the Innovation Atelier core team, (2) establishing a mission and vision that is linked to the strategic agendas of the partners or to existing initiatives, (3) framing the innovation activities in a broader way so that can support the needs of the local ecosystem.

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1 Introduction

Climate change and recent political events have demonstrated the urgency of transitioning towards a carbon natural society. The decarbonization of the European energy supply, the transition towards a sustainable mobility, the increase of energy efficiency and thermal comfort in buildings and the local energy production play a key role in addressing those urgent challenges. Given the complexity and interdependency of these solutions, deep changes in the existing business models, institutions, governance structures, human behaviours, and social networks are required. New technological solutions are also required to support the integration and interaction between different buildings, systems, and infrastructures.

The EU ATELIER project aims to contribute to the realization of a carbon neutral society by supporting the realization of Positive Energy Districts (PEDs) in the Lighthouse and Fellow cities. PEDs are urban areas or groups of connected buildings that actively manage to produce a surplus or renewable energy and net zero greenhouse emissions. The energy surplus is shared in regional or local energy grid (JPI Urban Europe, 2020).

WP3 aims to support the deployment of PED Innovation Ateliers by enabling different city actors to learn, adapt and implement Positive Energy Districts in their specific city context. Local partners and other relevant stakeholders representing the four quadrants of the local innovation eco-system are invited to participate, or contribute to the process of planning, organizing, realizing and/or operating the PED project in the specific urban area. The aim of the PED Innovation Atelier organization is to support the process of realization, by setting up a collaboration for innovation between the various partners and stakeholders, to foster exploring, co-creating new solutions, building up the capacity to learn and to innovate (within the collaboration, but also within each of the participating partner organisations).

Supporting the process of PED realization entails among others the identification of possible hurdles, or barriers that the cities are confronted with during the implementation of new technical, legal, organizational and/or financial solutions and innovations to realize the PED ambitions. After identification, Innovation Atelier efforts will be focusing upon bringing partners, experts, and science together, to help rethink, co-create or re-design solutions in such way, the barriers or hurdles can be overcome. In order to stimulate the simultaneous learning and development, cross city learning activities and knowledge exchange between the various PED Innovation Ateliers in cities is being organized and require also a good documentation of the working methods, sessions and co-creation activities within the Innovation Ateliers, to draw lessons learned and illustrate solutions as a result of these Innovation Atelier activities.

Further ambition is to maintain the collaboration within the PED Innovation Atelier and stimulate the continuation of their activities, also after the end of the ATELIER project lifetime. This ambition should be realized through establishing a business plan, including a list of products and services to generate revenue to keep the operational activities. Strategic sessions are dedicated to fuel the process of establishing the business plan, listing of activities and services for generate revenue eventually and working on a financial contingency plan etc. Moreover, Innovation Ateliers aim to become an EU-wide replicable concept.

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Giving the innovative nature of the implemented solutions, a successful implementation and replication of the PED Innovation Atelier concept in cities requires

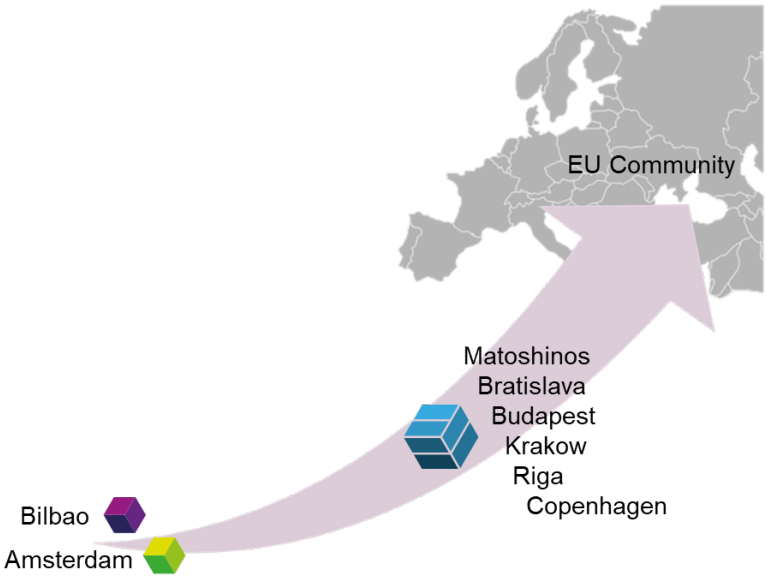

Figure 1 1 Replication and Upscaling process

a new way of collaboration and organization for most of the city actors. For this it is key to monitor, evaluate, and compare the implementation and impact of PED Innovation Ateliers. By monitoring the progress and the collaboration in action we aim to adjust and intervene in the full implementation process of the Innovation Ateliers.

This deliverable describes the framework developed to monitor and support the PED Innovation Ateliers implementation in the two Lighthouse cities (LHs) and report on the results of the different monitoring activities.

This deliverable is structured as follows. First, we introduce the monitoring methods and framework developed to support the monitoring activities. Second, we report on the progress and main results of the monitoring activities during the first three years (2020-2022) of implementation in the two Lighthouse cities. Finally, we reflect on the lessons learned about implementing IA, its replicability potential, and on the monitoring activities.

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2 Monitoring and Evaluating Innovation Ateliers

The Monitoring and Evaluation activities aim to evaluate what are the factors that contribute and do not contribute to the successful deployment of a PED IA. An Innovation Atelier can be defined as a neutral meeting, ground or intermediary that facilitates a learning ecosystem supporting the deployment of Positive Energy Districts. PED solutions are very specific to the context where they are implemented. Replicating individual PED solutions can be difficult given the geographical, legislative, and cultural specificities of each city. In this context, the IA value is represented by the replication of the successful process rather than the replication of individual measures. In the context of the IA, stakeholders and other relevant actors are invited to identify and share the hurdles, barriers and strategies when implementing a Positive Energy District.

One of the main objectives of WP3 is to assist cities, more specifically in the Lighthouse Cities, in identifying suitable areas and smart solutions to achieve the PED concept requirements, and in facing the local challenges on an affordable manner without running into social rejection.

The creation of the required knowledge, methods, or procedures aims to ease the replication of ATELIER PED concept in other cities that are willing to implement innovative smart solutions to support the energy transition process and increase quality of life for citizens.

As a result, the monitoring activities (T.3.3) focus on mapping the process and impact of the deployment of the IA in the two Lighthouse cities. The process is monitored by identifying the success factors in creating a safe learning implementation environment for the deployment of Innovation Ateliers. The impact is assessed by mapping the influence of the Innovation Atelier concept in the deployment of a successful PED.

In this section we describe the approach and framework used to monitor, evaluate, and compare the development and impact of Innovation Ateliers. The conceptual framework is based on a literature study and interviews with ATELIER project partners. First, we will introduce the Reflective Monitoring Approach used to conduct the monitoring activities in Amsterdam and Bilbao. Second, we will introduce the M&E framework and its key indicators to monitor and evaluate the implementation of the Innovation Ateliers. Third, we will describe how the monitoring and evaluation was conducted in the Lighthouse cities.

2.1 Reflective Monitoring Approach

This section describes the **Reflective Monitoring in Action** methodology used to monitor the progress of the Innovation Ateliers in Amsterdam and Bilbao. The monitoring of the Innovation Ateliers is based on the approach of Reflective Monitoring in Action (RMA), a method developed by the Wageningen University and VU Amsterdam in 2010. Specifically designed for monitoring projects working on system-innovations, and with a sustainable transition focus (Mierlo, et al., 2010).

For projects with ambitions to realise system-innovations, it requires to include elements of learning and reflection in operation for structural change. Reflective

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Monitoring in Action encourages stakeholders to keep reflecting on the impact of project actions and activities in relation to ambitions of the project. This further includes reflection on the project's environment, like current practices, institutional embeddedness. The prior helps to identify the opportunities in the system with the goal to realize structural change and innovation to happen. The RMA approach is action oriented. Ideally, it is an integral part of the project development process. Results and insights of the monitoring activities will guide and fuel new activities in the project, and support partners in the monitoring process and to assess the impact of the Innovation Ateliers on the development of a PED.

RMA is based on a cycle of four steps: Observe, Analyse, Reflect and Adapt. In the context of the implementation of the ATELIER project, a fifth step was included to support the collection of the results and lessons learned after each monitoring cycle.

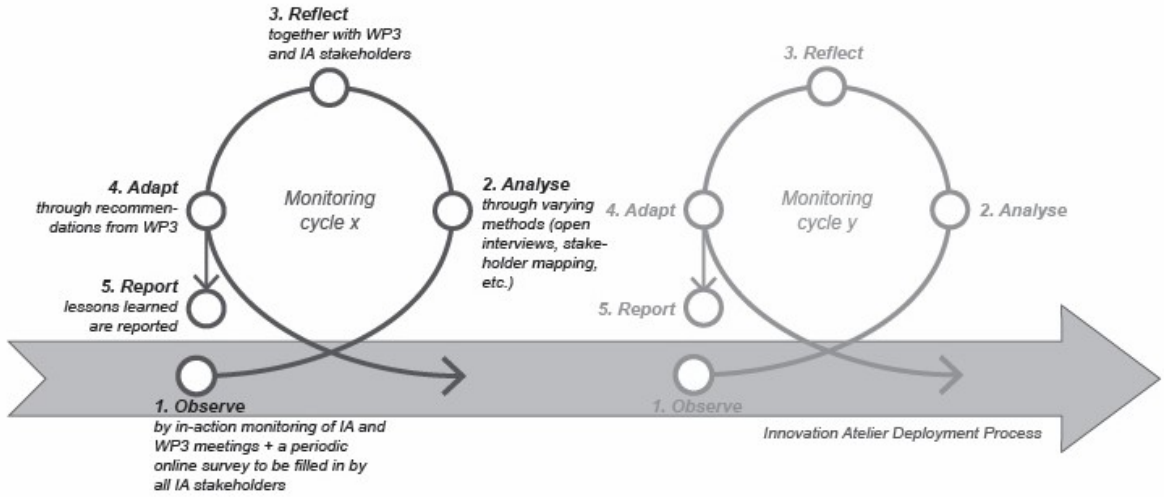

Figure 2 2 A visual representation of two RMA-Cycles in an Innovation Atelier deployment process

2.1.1 Observe

The development process of the innovation ateliers will be observed trough a continuous **In-Action Monitoring** and **WP3 meetings**. Moreover, a **Periodic Online Survey** is conducted periodically to explore the stakeholders' experiences in the implementation of IA in Bilbao and Amsterdam.

2.1.2 Analyse

In this step the cause and effect of the observation will be analysed. Different methods are used (e.g., stakeholder mapping, open interviews) depending on the nature of the observation made on the previous step. For example, in the first monitoring cycle in Amsterdam, given the late initiation of the project an actor and causal analysis was conducted. The Actor analysis mapped all the different actors engaged in the project plan and their roles. the causal analysis identified the underlying causes influence the initiation of the AIA.

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2.1.3 Reflect

In this step the results of the analysis will be discussed and reflected by all the relevant IA and WP3 stakeholders. Multiple Reflection meetings and interviews were conducted to validate the results collected in the previous steps, define the actions that needed to be taken, identify the lessons learnt and to identify new observations.

2.1.4 Adapt

Based on the outcomes of the previous steps, Innovation Ateliers and WP3 stakeholders will adapt their process to address the recommendations collected in the previous steps.

2.1.5 Report

In this phase, relevant insights and lessons learned will be collected in a report in each monitoring cycle and shared with relevant stakeholders engaged in WP3. The key results from these reports are condensed in this deliverable.

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2.2 Conceptual framework of an IA

After introducing Reflective Monitoring in Action (RMA) as the methodology to perform the monitoring activities in the IAs in Amsterdam and Bilbao, we defined a conceptual framework and its key components to evaluate the different aspects of the implementation.

The conceptual framework has been developed through three iterations (see Figure 3 3). Two intermediate versions (version 1.0, and 2.0) have been released and refined to produce version 3.0, which was then used in the actual monitoring of the implementation.

To develop the conceptual framework and define its key components, we performed an RMA cycle where observations, causal analysis and reflections were performed. To complement the results, six interviews were performed with the AIA key stakeholders. Based on those outcomes, the first version of the conceptual framework and its 4 key components was defined. These key components were the result of an RMA cycle to address the question: “What is it needed to initiate an IA?”. This question derived from the late initiation of the AIA and the active initiation in Bilbao observation. These components were also identified by the Lighthouse cities stakeholders as the crucial aspects to address when initiating an IA.

The second version of the conceptual framework was the result of a literature review comparing different frameworks related to mapping innovation in ecosystems by different authors (see Overview of criteria proposed by different authors).

The third and last version, was the result of the validation of the key indicators in the Lighthouse cities. To validate this final version, a reflection meeting was organized with all the relevant stakeholders in the two innovation Ateliers. Moreover, a community of practice and other events were organized to collect further feedback.

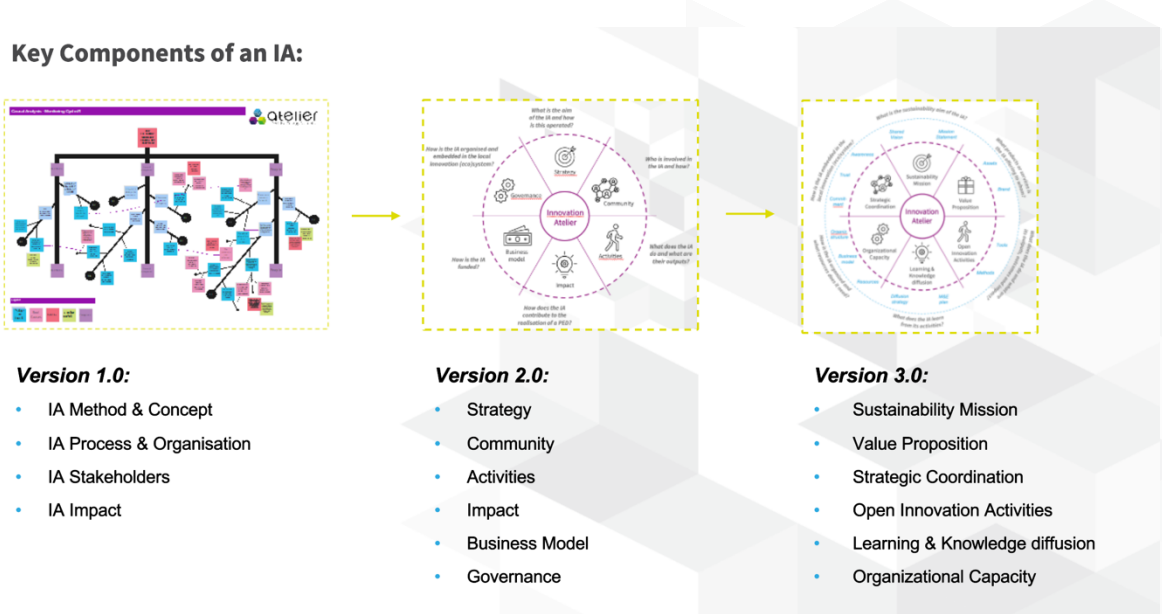

Figure 3 3 Three iterations of the key components of the Innovation Ateliers

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The final version of the framework consists of 6 key components, which were defined to describe and evaluate an Innovation Atelier:

I. **Sustainability Mission:** describes to what sustainable change the Innovation Atelier aims to contribute and how it aims to do this.
II. **Value Proposition:** describes what products or services the Innovation Atelier offers to whom? These can vary per stakeholder group.
III. **Strategic Coordination:** describes how the Innovation Atelier is embedded and connected to local decision making in the local innovation (eco)system.
V. **Open Innovation Activities:** describes what the Innovation Atelier does, its outputs and resulting outcomes and impact.
VI. **Learning & Knowledge diffusion:** This component describes how the Innovation Atelier learns from its activities and how these learnings are diffused in the wider local (and regional, national and/or international) innovation ecosystem(s).
VI. **Organizational Capacity:** describes how the Innovation Atelier is organized and what resources it needs.

In the following sections the six key components are described in more detail.

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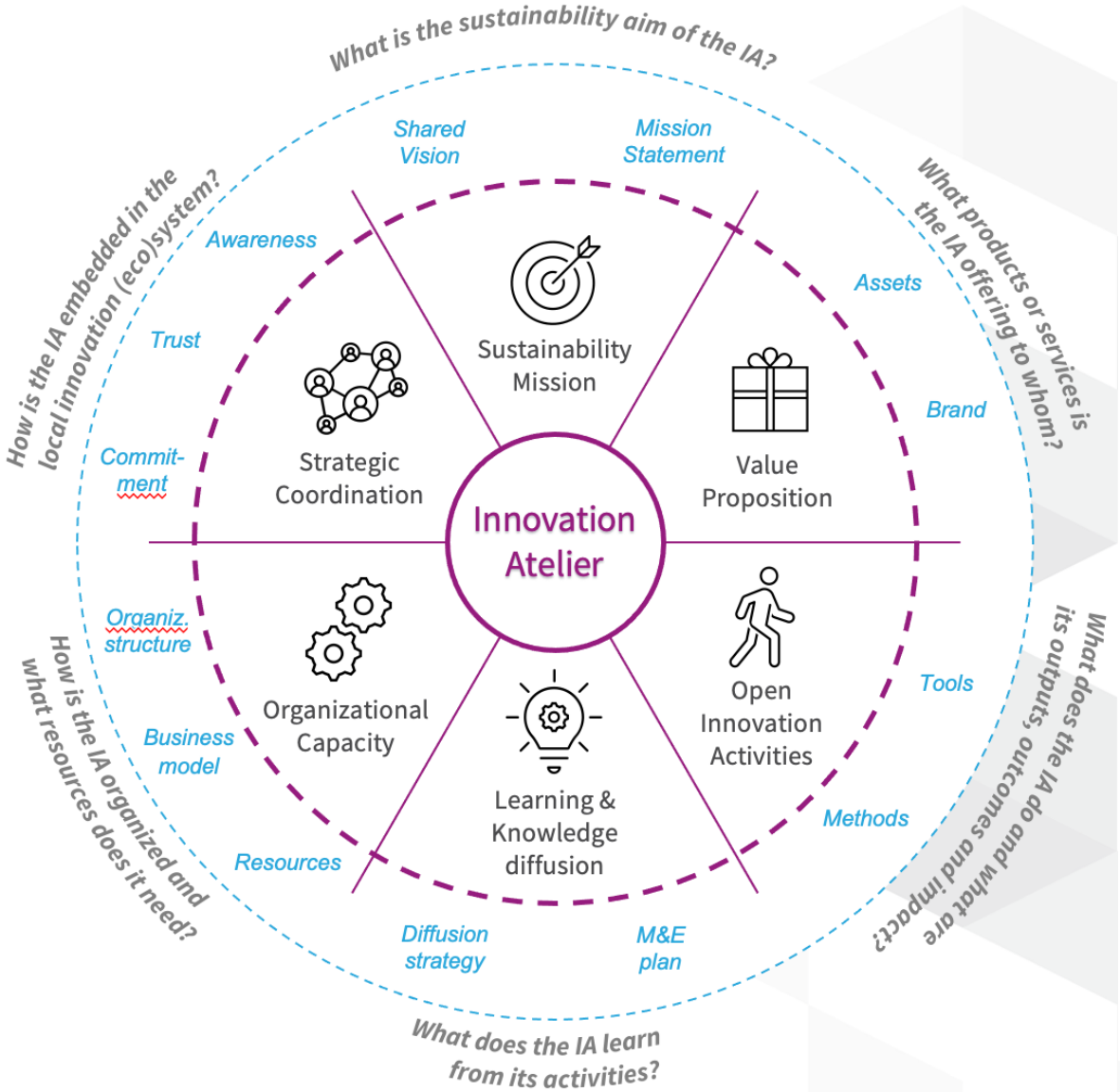

Figure 44 Key components of Innovation Ateliers

2.2.1 Sustainability Mission

The sustainability mission describes the desired outcomes and impact a given Innovation Atelier aims for. The mission represents the shared end goal that connects and actively engage the different stakeholders in collaborating and contributing to the Innovation Atelier. Therefore, the creation of a Sustainability mission is one of the first steps that should be taken in this type of projects and should be revisited periodically to make sure it is shared among all the stakeholders.

Within the sustainability mission, the envisioned impact of the Innovation Atelier can be described in terms of sustainability (short- and long-term) outcomes. However, monitoring the outcomes of a given experiment is not an easy task. From one side, the focus can vary in each implementation depending on the given context, and from the

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other side, a consistent set of criteria should be applied to be able to compare the results (Luederitz, et al., 2017).

The long-term aim of an Innovation Atelier is to support the realization of Positive Energy Districts. However, in each IA implementation the outcomes can vary depending on the specific solutions selected and on the goals of the different engaged stakeholders. To achieve this, each pilot has elaborated their sustainability mission in a shared vision and/or mission statement.

2.2.2 Value Proposition

The value proposition describes what products or services the Innovation Atelier offers to the local Innovation ecosystem. In other words, the value proposition addresses a problem or satisfies a need. In innovation systems, key activities can be mapped in a set of functions: entrepreneurial activities, knowledge development, knowledge diffusion through networks, search guidance, market formation, resource mobilization and creation of legitimacy/counteract resistance to change. The fulfilment and interaction of these functions can be seen as a necessary condition for structural change and for systemic innovation (Hekkert, Suurs, Negro, Smits, & Kuhlmann, 2007).

The sustainability mission defined by each Innovation Atelier will also influence the selection of functions that are more relevant for its value proposition. The selection also relies on the tangible and intangible assets the Innovation Atelier can offer to the networks or actors.

The Innovation Ateliers as an intermediary network or entity has a key role in supporting functions related to knowledge and networks and access to technologies and complementary resources. For instance, IA establishes an active (local and international) community of interdisciplinary stakeholders that shares knowledge, expertise, methods, and tools, and collaborate in the implementation of Positive Energy Districts. The creation of the legitimacy of a new technology and formation of new markets can be also considered as outcomes of a successful implementation of an Innovation Atelier. In addition, a branding and communication strategy is key in keeping all the different stakeholders informed about all the assets created in the different implementations.

2.2.3 Strategic coordination

Strategic coordination describes how a given Innovation Atelier is embedded and connected to the local decision making and ecosystem. The engagement of the existing local ecosystems is key in addressing a complex sustainability challenge. This supports the exchange of knowledge, relevant project outputs and learnings between the ecosystem, facilitating the development of individual solutions that integrate the learnings of other projects and that contribute to a shared goal. If not aligned with the goals of the ecosystem there is the risk of developing solutions that need to overcome known challenges and do not have an impact outside of the project scope.

To successfully establish a strategic coordination strategy, it is important to identify the key actors, their needs and contribution and to map the existing networks. This

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facilitates the definition of a project scope that is aligned to the strategic agendas of the actors. In the context of the Innovation Atelier, this means to evaluate how it is embedded in the local ecosystem and how its outcomes are perceived as valuable by the different actors.

Complex sustainability challenge requires the engagement of actors with different perspectives, roles, and expertise. In this context, it is recommended that all the Quadruple Helix actors (academia, industry, government, and citizens) are represented.

2.2.4 Open Innovation activities

This component describes the activities, outputs, and impact of an Innovation Atelier. The activities are defined by the value proposition and typically focus in addressing the technical, economic, legal, and social challenges encountered during the implementation of the project. The activities can range from hosting ideation workshops, to conducting real-life experiments, to scientific research. Open innovation activities typically facilitate innovation, iterative learning, co-creation, and user-involvement among the stakeholders. Open innovation activities according can lead to different types of outputs such as built capacities, actionable knowledge, accountability, and changes in the physical and social structures (Luederitz, et al., 2017).

2.2.5 Learning & knowledge dissemination

This component describes how the Innovation Atelier learns from its activities and how these learnings are disseminated in the wider local (and regional, national and/or international) innovation ecosystem(s). A good knowledge and diffusion strategy typically incorporates the system dynamics, is aligned to the decision-making process, is targeted to its audiences, and contains a clear definition of what is evaluating or learning with whom and for whom. This will facilitate the exchange of insights and lessons learned across different projects and stakeholders and, the replicability in other contexts. Moreover, it will facilitate the integration of given project in a portfolio of open innovation activities in a local ecosystem.

2.2.6 Organizational capacity

The Organizational Capacity describes how the Innovation Atelier is organized and what resources it needs. This component focuses on the operational resources, activities and structures that are needed to operate the Innovation Atelier. An Innovation Atelier is an intermediary entity created to facilitate open innovation processes in a local innovation ecosystem. This asks for operational resources, a business model and an organizational model that describes how the Innovation Atelier operates. Given the complexity and novelty of the challenges addressed by Innovation Atelier, the organizational capacity should focus on integrating key actors in the organization, facilitate the knowledge exchange between the project activities and should support iterative co-creation process. It is therefore important that the resources, organizational structure, and financial model facilitates this flexibility.

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2.3 Monitoring and Evaluation activities in the Lighthouse cities

This section describes how the monitoring and evaluation activities have been executed and operationalized in the Lighthouse cities Amsterdam and Bilbao. As soon after the ATELIER project kicked-off, both Lighthouse cities started with setting up core team meetings with the most relevant partners in subsequently Amsterdam and Bilbao ecosystems. A first point of contact was soon established.

At the Bilbao side, the Core team of partners was chaired by Begoña Molinete Cuezva (CEPV, the Basque Energy Cluster). Access to the progress and results of the Bilbao Innovation Atelier was best monitored by frequent meetups with Begoña, as language was considered a barrier to let the Observation team (AMS, TNO, PIK) directly participate in the Bilbao Innovation Atelier meetings. For the following monitoring stages, given the introduction of new team members the language barriers were no longer present, and the observer has been actively participating to BIA meetings.

In Amsterdam, the language issue played no part, and the Lead Observer from AMS was invited to all the core team meetings of the Amsterdam Innovation Atelier, to listen, and to participate in the discussion on how to further organise the Innovation Ateliers, to select the topics and connect with the relevant stakeholders and knowledge partners in the wider Amsterdam ecosystem.

Performing interviews with a considerable number of partners and stakeholders in the direct ecosystem of the Amsterdam and Bilbao Innovation Atelier atmosphere provided a good strategy to take some further deep dive in the expectations of partners and stakeholders both on the impacts and operational status of the Innovation Ateliers as well as the realization of the PED ambitions in both Lighthouse cities. These interviews were directly providing input for the reflection workshops that have been organised as a follow up.

Workshops have been organised to reflect collectively on the findings of interviews, and to discuss these results together on how to formulate the next steps. Several workshops have been organised, each involving and focussing on one of the Lighthouse cities Innovation Ateliers. During these workshops, a form of collective reflections was set up to digest the findings and results coming from the individual interviews and heading up to formulate together next steps of how to better organize, facilitate and coordinate the activities of the Innovation Ateliers.

Observation of the progress of the Innovation Atelier activities in Amsterdam and Bilbao was further supported by a series of progress update reports (periodic online surveys) that have been filed with details of Innovation Atelier organisation, members, listed topics and activities. Especially at the beginning of the project, the importance of keeping the two initiatives aligned somehow, keeping track of establishing and early maturation has been monitored this way.

WP3 meetings organized by the WP leader, gave the opportunity to learn from other experiences (from one Lighthouse city to the other), and cross fertilize on the practical organisation, inspiration, and implementation of Innovation Ateliers. For instance, the way of network organisation Bilbao Innovation Atelier soon adapted in establishing the Innovation Atelier, proved a nice example to follow up on in Amsterdam too. Also, the

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way Bilbao Innovation Atelier worked with national points of contact in their networks for connecting the Innovation Ateliers with the dedicated Innovation Tracks, was well received, and led to adoption in Amsterdam too.

COVID-19 restrictions lead to the performing of most of the observation activities in an online format: participating to core team meetings, setting up online interviews, organizing online workshops, and requesting filling out online progress reports with facts and figures.

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3 Applying the Framework: IA Case studies

This chapter reports the key results of the monitoring activities of the IA implementation in the Lighthouse cities Innovation Ateliers: in Amsterdam (AIA) and in Bilbao (BIA).

The activities have been organized around three stages, spanning the 5-year duration of the project, corresponding to the different levels of maturity of the implementation of the IA ateliers. Here we report the results of the first two stages, corresponding to the first three years of the project.

The first section describes the first stage of implementation of the Innovation Ateliers, and it focuses on mapping the process of establishing the PED Innovation. Moreover, during this stage, the first monitoring framework version was developed based on the key aspects identified by the stakeholders for the initiation of an IA.

The second and third sections focus on the maturation of the PED innovation Ateliers and correspond to the second stage. During the second year we focused on monitoring the maturation and on the validation and adoption of the last version of the key indicators. The third year focused on the monitoring the IAs progress by using the key indicators, and on condensing and sharing knowledge with Fellow cities about the implementation of IA.

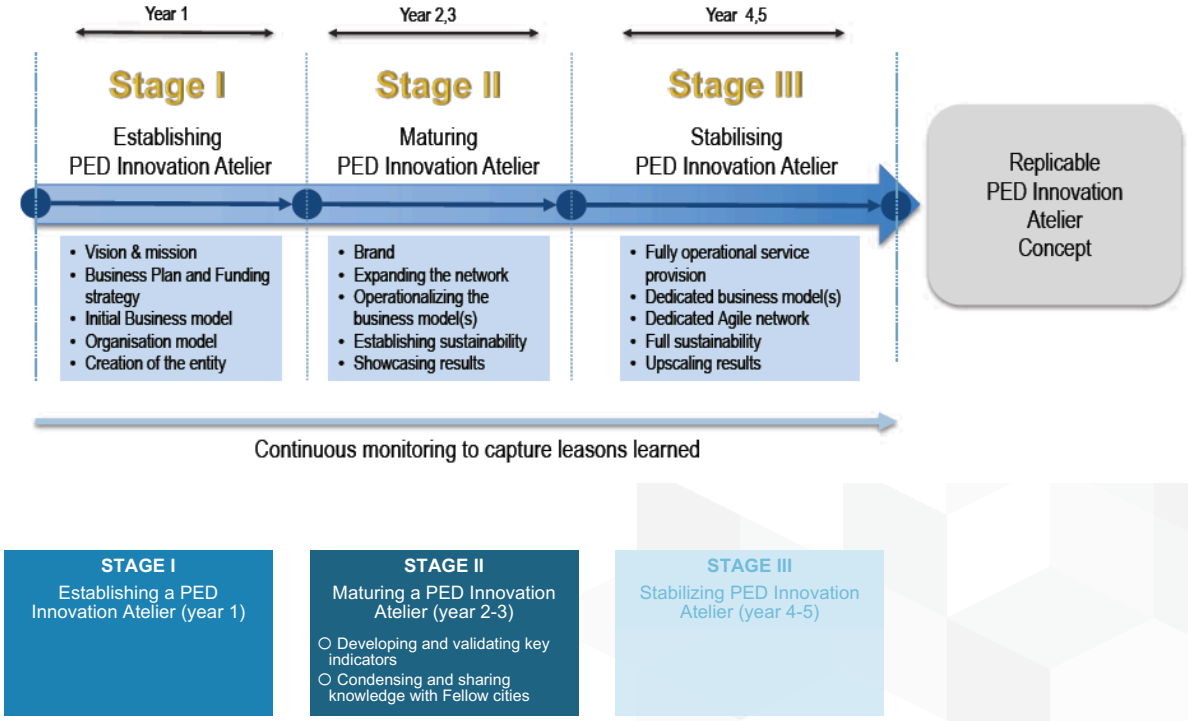

Figure 55 Deployment stages of the local PED Innovation Ateliers

In the first section (first stage) results are reported following the different steps described in the RMA cycle section. In the second and third section (second stage)

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results are reported following the conceptual framework and key indicators. In the second stage the RMA methodology was used an underlined method for the collection of data.

RMA monitoring steps were also reflected on the different project activities. **Observations** about the progress of each pilot were made from progress reports, surveys and during WP3 and other IA meetings. During T3.3 bi-weekly meetings observations were discussed, and it was decided if a monitoring cycle should start. The **analysis** was made by performing 1-1 interviews to retrieve more in-depth information about the observation. In the AIA a stakeholder and causal analysis were performed to further analyse the observation collected. An annual IA Reflection meeting and Cross city lesson events were performed to **reflect** together with core team members on the observations, the experience of implementing an IA and, collect key learnings and lessons learned about the implementation of an Innovation Atelier. Based on the outcomes of the reflection meetings **adaptations** were performed by each pilot.

3.1 Establishing PED IA (2020)

The first monitoring stage focused on mapping how each Lighthouse city was establishing its innovation Atelier. This stage also enabled the definition of the first version of the monitoring framework. Based on the outcomes, main aspects related to the initiation of Innovation Atelier were collected and translated into indicators.

In Amsterdam and Bilbao, the initiation of the reflective monitoring cycle was led by the observation of the different initiation processes of the two Lighthouse city Innovation Ateliers. Bilbao from one side has established a smooth initiation process, while in Amsterdam this has not kicked off yet.

In the first year of monitoring, the observation activities were relatively open and semi-structured, with the goal to identify the unexpected or unintended developments and outcomes of the IA. During the IA meetings, by using the different steps indicated in the Reflective Monitoring in Action, the observations were made. This was followed by the analysis of those observations' trough 1-1 interviews and/or workshops with the key stakeholders. Finally, a reflection meeting was hold in each Lighthouse city where participants were invited to reflect on establishing their PED IA by following the indicators described in the first monitoring framework version.

3.1.1 Amsterdam

3.1.1.1 Observe

The observation about the late initiation of the AIA led to the initiation of the first monitoring cycle in April 2020. The goal was to identify the undergoing **motivations behind the late initiation and identify the success factors behind the successful initiation of BIA**.

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3.1.1.2 Analyse

As a part of the **analysis**, in Amsterdam, two methods were used to identify potential barriers behind the initiation: an **actor analysis and a causal analysis**. The goal of the actor analysis was to explore which partners are engaged and should be engaged according to the ATELIER project plan in the Amsterdam Innovation Atelier. The goal of the causal analysis was to identify the underling motivations that influenced the late initiation of the AIA.

The actor analysis workshop was performed in April 2020. Participants were asked to make a list of the actors identified by the ATELIER project plan. Then, participants were requested to sort the actors by country, to highlight their role in the quadruple helix and to cluster them by work package.

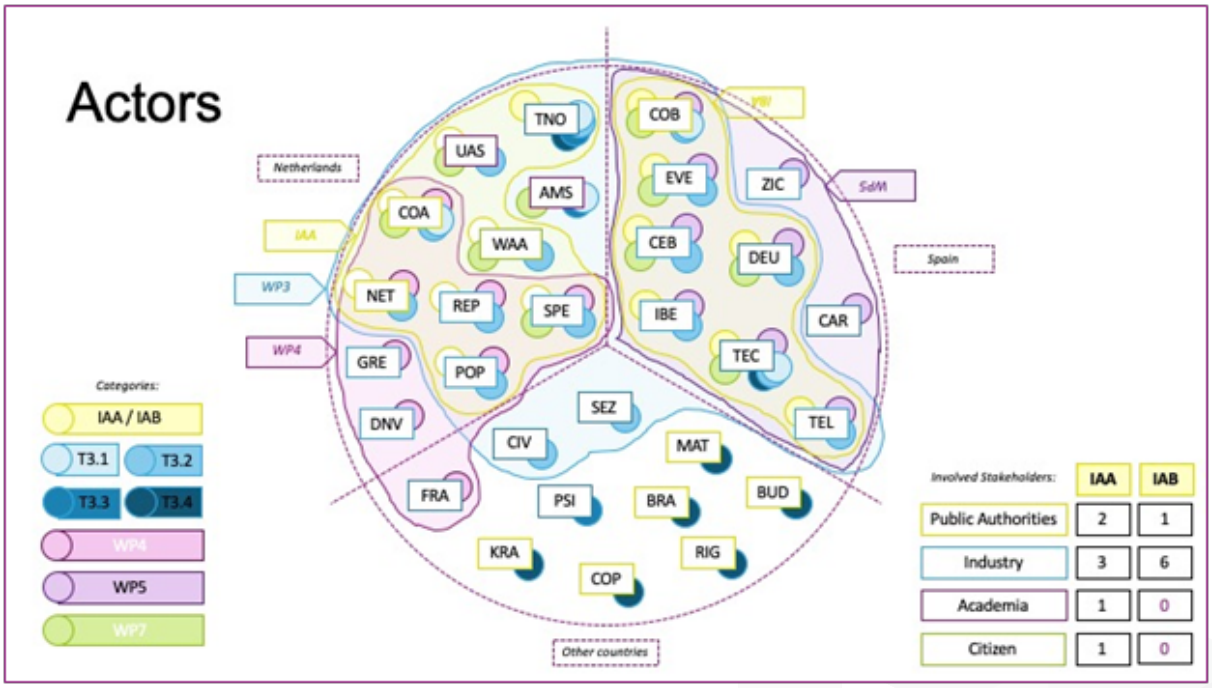

Figure 66 Actor Analysis results (Credits: Aranka Dijkstra)

The Actor Analysis (Figure 66) resulted in the comparison and analysis of the partners engaged in each IA. From the analysis it was observed that BIA has engaged in the Innovation Ateliers all the different actors of the innovation tracks (T.3.2). Based on this analysis, it was suggested AIA to also engage the Innovation tracks partners in their own Innovation Ateliers meetings: COA, TNO, WAA, HvA, Republica, Poppies, Spectral and Waternet.

Differently from Bilbao, Amsterdam did not have one assigned lead for its activities and instead had many leads engaged in different WPs and project activities. In the BIA almost every partner is involved in all tasks of WP5. In Amsterdam, many parties were involved in some tasks of WP4. Moreover, most of the industry partners engaged in the AIA are small and medium enterprises with more limited influence.

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The **Causal Analysis** was performed in May 2020 following the approach described in the Reflective Monitoring in Action guide (Mierlo, et al., 2010). The Causal Analysis is often performed with multiple stakeholders during a live co-creation session. Due to COVID-19 restrictions it was decided to conduct five online interviews with key Amsterdam ATELIERS partners.

During the interviews, participants were requested to reflect on the challenges behind the initiation of the Amsterdam Innovation Ateliers. Then, the outcomes of the interviews were summarized and clustered in a causal tree composed by three categories: Method & Concept, Process & Management and Stakeholders (see Figure 7 7).

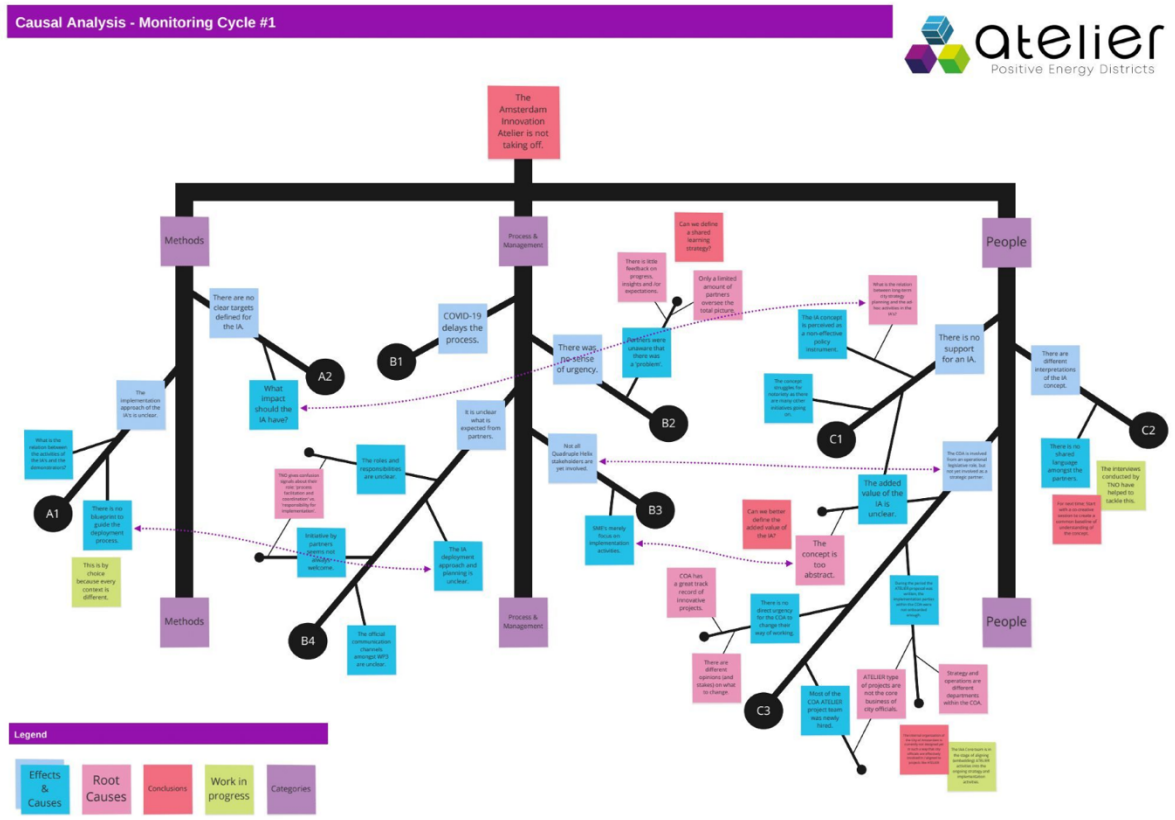

Figure 7 7 Causal Tree clustered around three categories: Method & Concept, Process & Management and People. (Credit: Aranka Dijkstra)

Regarding the Method and Concept, it was reported there was not a clear and shared understanding on the impact of the IA concept and on the added values for each stakeholder. Moreover, there was a need to define a concrete approach for the deployment process of the IA in Amsterdam.

Participants reported the Process & Management of the AIA suffered from uncertainty and confusion about ownership and guidance. Partners reported to not have a clear view about the contribution that was expected from them and when its contribution was

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required. They also reported a lack of alignment with the WP3 activities and the need of a learning strategy.
Participants reported in the Stakeholder category of the causal tree that ATELIER partners do not have a strong sense of ownership about the AIA. The city officials did not have a clear idea on how the IA was linked to the to the existing strategic city planning processes of the City of Amsterdam. Moreover, the segmentation of responsibilities between city departments made difficult to onboard the right strategic and operational people into the AIA.

3.1.1.3 Reflect

To validate the results of the Causal Analysis, an online **Reflection meeting** was organized with the interviewees in September 2020. Participants were requested to respond to a multiple-option survey, and they were invited to reflect on the results. The reflection served to assess if the identified challenges were already addressed or if there were any additional actions to perform. Moreover, participants were invited to share their lessons learned.
During the meeting, participants reported to feel confused about some of the questions due to the complex phrasing and because some of the observations were already addressed.

Regarding the Method and Concept category in the casual tree, most of the participants reported a significant improvement in the AIA organization with respect to the earlier phase in May. They indicated that the improvement was due to the organization of two AIA meetings with all the stakeholders. One participant indicated that no changes were. Participants also reported that thanks to an AIA workshop, now there was a clear understanding of what an IA is. It was also indicated interest on learning more about the BIA implementation process. They were interested in learning about Bilbao consensus creation process among the partners and wanted to learn the outcomes of similar monitoring activity in BIA.

Participants reported a clear improvement in the Process & Management of the Amsterdam Innovation Ateliers especially related to the ownership and guidance that was taken by the City of Amsterdam. Given the complexity of the project and the many topics, on participant suggested to have an iterative strategy creation and planning.

Stakeholders' category: participants reported that it is too early for people to feel ownership of the AIA because of its early stage of implementation and that it will grow once the impact of the AIA is visible during the project implementation. The City of Amsterdam also reported an ongoing discussion on the integration of the EU projects into the municipality activities. The most effective way to reach other city departments still dependent on personal relations and not defined at strategic level.

3.1.1.4 Adapt

Based on the outcomes of the Reflection Meeting several Adaptations were made:

- A monitoring cycle was initiated in Bilbao to compare the deployment process in AIA and in BIA.

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- Reflection Meetings were established periodically in Amsterdam and Bilbao to evaluate the implementation of both Innovation Ateliers.
- Following the example of Bilbao and the outcomes of the monitoring, Amsterdam partners appointed a local lead from COA and integrated the innovation tracks partners into their meetings. This allowed to easily identify topics for the innovation tracks and facilitated the interaction with the technical partners.
- The insights brought by the improved organization and communication lead to the organization of relevant IA workshops. AIA ownership feeling among the partners was also tackled by TNO activities.

Besides the lessons learned about the deployment of the Innovation Atelier, the outcomes also contributed to the improvement and definition of the monitoring approach. Questions and statements were formulated in a specific and positive way. Results of following monitoring activities were translated in faster adaptations to avoid less relevant reflections. The complete AIA monitoring report can be found in the Report on monitoring results AIA 2020.

3.1.2 Bilbao

3.1.2.1 Observe

The monitoring cycle in Bilbao was performed to understand BIA implementation process and progress and to collect data to compare the two pilots. The monitoring activities were conducted in October and November of 2020 and consisted in 1-1 interviews and a reflection meeting.

3.1.2.2 Analyse

The **Analysis** was performed by conducting five semi-structured interviews with the Bilbao core group and the innovation tracks. Participants, following the three categories defined by the outcomes of causal analysis in Amsterdam, were asked to respond questions about the Method & Concept, Process & Management and Stakeholders.

To evaluate the Method and Concept in BIA, participants were requested to describe the goal and perceived value of their IA. The goal of BIA was defined as “to actively engage citizens and interdisciplinary stakeholders in implementing the energy transition in Bilbao”. When asked about the perceived value of the BIA, participants described it as way for local stakeholders to participate in the energy transition in Bilbao. For the City of Bilbao, the IA is a way to take the lead in the energy transition and become an example for small municipalities in the region. IA is also seen as a way for the city to create the skills in the domain of energy transition among the employees working in different departments and to structure inter-departmental collaborations. For small municipalities BIA is considered as a support to define their *local* energy planning in coordination with *regional* energy planning. Finally, BIA is seen as a versatile concept that adapts to the specific needs.

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The Process & Management BIA can be described as a core group consisting of a chair and representatives of each innovation track. The track coordinators oversee the organization of workshops for the local stakeholder community (see Figure 88). The workshops are aimed at bringing people together and work on a challenge related to the energy transition in Bilbao. Innovation Ateliers were also described as the "glue" that connects the energy planning on both a regional and local policy level (WP2) to the implementation of energy planning on a local level (WP5). Overall, despite the limitations posed by COVID-19 about conducting physical events, the BIA reported to be satisfied about the organization of their Innovation Atelier.

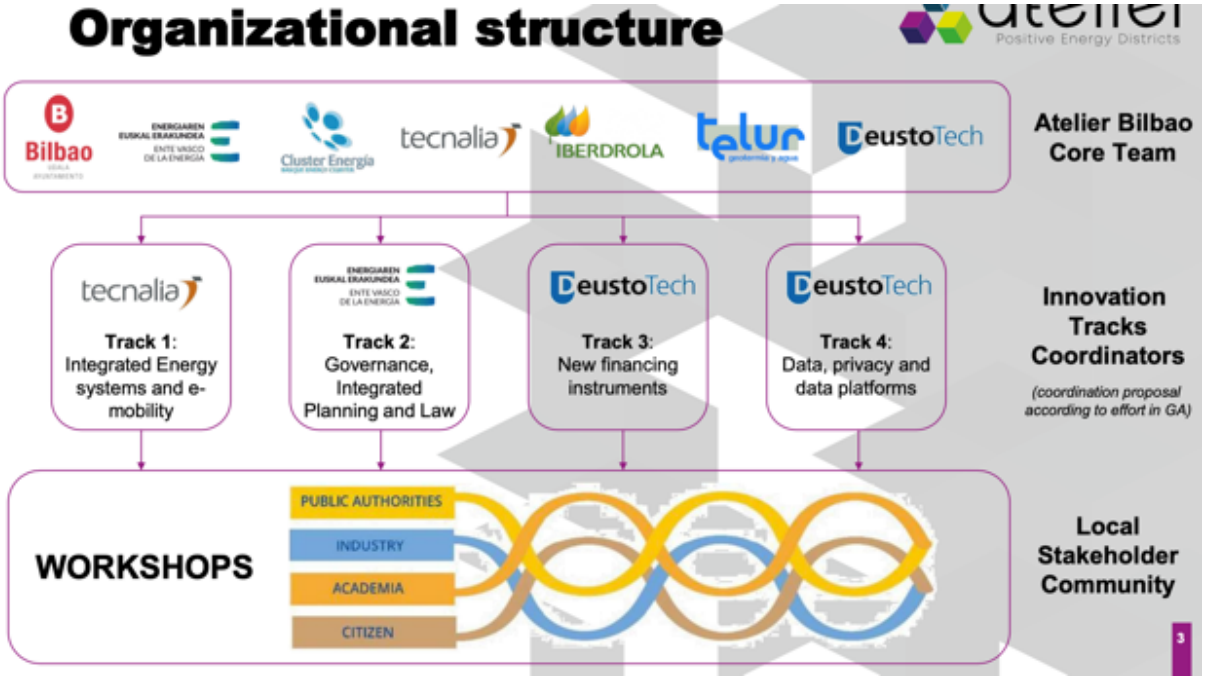

Figure 88 Organizational structure of BIA

Participants reported in the Stakeholder category to have most of the quadruple helix stakeholders actively engaged in the BIA except for citizens: Academia through DEUSTO Tech, Local Government through the City of Bilbao, Regional Government through EVE and Industry through Iberdrola, Telur and Cluster Energia. Technalia represents a bridge between academia and industry. Other stakeholders were invited to participate and contribute to the workshops but do not have a role in the decision-making process and in the organization. BIA Innovation Atelier reported their desire to engage citizens once a clear strategy will be defined.

3.1.2.3 Reflect

To validate the results and get additional feedback, an online Reflection meeting was performed in November 2020 with the core group of Bilbao Innovation Atelier. During the reflection meeting participants, were requested to validate the outcomes collected during the analysis and to reflect on them.

When validating the previously defined Method & Concept, participants reported a change in the goal and validated previously defined values. The goal was redefined as **"to support in the definition and the implementation of the 2050 Bilbao energy**

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strategy and to support the different stakeholders in shaping the future by contributing to the long-term transition". Engagement was defined more as a mean to achieve this goal. After validating the previously defined values partners mentioned that IA is the opportunity to think outside of the box and to be an opportunity tailoring innovative smart city solutions to the context and needs of the citizens and districts. BIA also provides the opportunity to have high level discussions with experts from different sectors in the same working group supporting the innovation of the Bilbao energy transition. This results in a think-tank with a high level of expertise. The BIA umbrella brand creates a greater visibility, coordination and reach amongst stakeholders. This leads to a greater innovation capacity.
Participants validated the Process & Management defined during the previous cycle, emphasized the importance of the contribution of the Energy Cluster in fostering the connection between different organizations and the innovation tracks.
Participants validated the result reported previously on the Stakeholder category and motioned the importance of allocating enough budget to allow key stakeholders to contribute to the BIA.

A small evaluation at the end of the meeting makes clear that the Bilbao Innovation Atelier foresees a high value in comparing the different Innovation Ateliers and learn from their experiences. Reflection meetings were reported as a valuable set up to think about the implementation.

3.1.2.4 Adapt

Based on the outcomes of the Reflection Meeting about the need of comparing the results and learn from the implementation of the AIA a Cross-City Learning Event, a meeting was organized during the general Assembly in December 2020.

Bilbao Innovation Atelier is seeing as an effective way for organizing stakeholders and align-long term activities. It is important to allocate some budget to allow partners to commit and contribute to an Innovation Atelier without being distracted by their daily routines. Appointed leadership in an Innovation Atelier is key in fostering the connection between different stakeholder organisations and activities. The complete AIA monitoring report can be found in the Report on monitoring results BIA 2020.

3.1.3 Main findings

The way project proposal was structured lead to major differences in the initiation of the two Innovation Ateliers. In the BIA almost every partner is involved in all tasks of WP5. In Amsterdam, many parties were involved in some tasks of WP4. Moreover, most of the industry partners engaged in the AIA are small and medium enterprises with more limited influence. In Bilbao the Innovation Atelier integrates important industry partners interested in integrating innovative energy transition practices into their agendas.

BIA has structured their activities and value proposition to feed an energy transition long-term vision by fostering innovation and collaboration. AIA has structured a more open path were learnings and value proposition has been defined in each step of the implementation.

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Many adaptations were performed to the monitoring based on the lessons learned from the monitoring. Language was simplified and reviewed. Parallel monitoring cycles were implemented in the next stages to collect data and to compare the two pilots. Monitoring steps were integrated more organically into IA project activities and timing between them was reduced to avoid the analysis or the reflection of observations that have been already addressed.

3.2 Maturing a PED Innovation Atelier: Developing and validating key indicators (2021)

The second monitoring stage focused on mapping how each Lighthouse city was maturing the implementation of its Innovation Atelier. Cities were invited to reflect about their process of developing and operating their Innovation Ateliers and to collect the lessons learned. This stage also enabled the introduction, validation, and implementation of the key components in the Lighthouse cities. To validate this final version, a reflection meeting was organized with all the relevant stakeholders in the two Innovation Ateliers.

It is important to mention that the reflective monitoring in action was the underling methodology used to monitor the process. The monitoring process, however, evolved in a more integrated approach based on the learnings of the previous monitoring stage. This can be seen in the recurrent activities that were performed during the monitoring period and on the way that the monitoring activities were performed.

The results reported below come from the different observations performed during WP3 and other IA meetings. During T3.3 bi-weekly meetings, the participants discussed the observations performed in each IA. The monitoring cycle concluded with a reflection meeting performed in each Lighthouse cities. Since the reflective monitoring meeting elaborates on the outcomes of the previous monitoring activities, the following sections will focus on the reporting about the main outcomes of the activity.

Following the feedback and learnings of the previous monitoring activities, the reflection meeting was structured in the same way in both Lighthouse cities. This facilitated the collection of information about the implementation and the comparison of the two IAs. Moreover, the meeting was structured in a way that allow participants to follow the different steps described in the RMA cycle and to avoid working on observations that are no longer valid.
The Reflection meeting was structured in three parts: Introduction to the monitoring, reflection and next steps, and conclusions. During the introduction, the goals of the monitoring, M&E framework and its key components were presented. Following the key components of the framework, the participants were invited to reflect about their learnings and about what other people can learn from it. Finally, participants were invited to define the next steps and to provide their remarks about the reflection.

3.2.1 Amsterdam

The AIA reflection meeting took place online in November 2021. The goal was to reflect about the learnings of the implementation of the Innovation Atelier in Amsterdam and, at the same time, to validate the M&E framework. After an introduction about the

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monitoring goals and the key indicators, participants were invited to reflect about what they have learned and what other can learn from AIA, by following the key indicators of the framework.

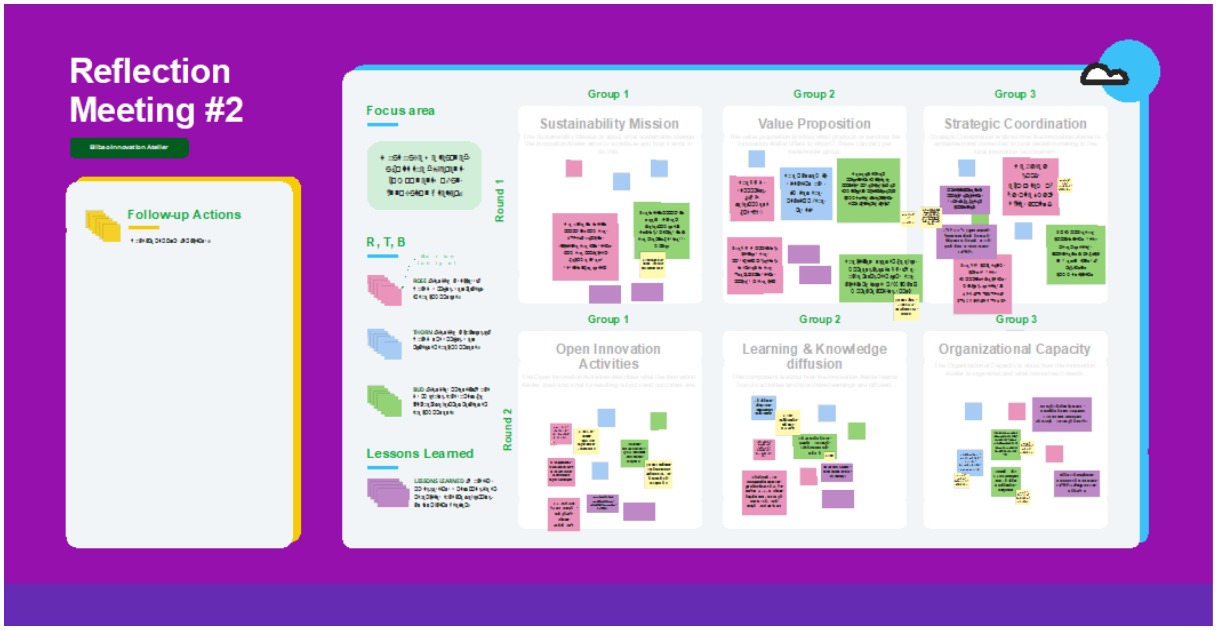

Figure 9 9 Final Miro board of the AIA Reflection Meeting

Main outcomes of the reflection meeting are reported following the key indicators defined in the M&E framework. As a result of the learnings from the reflection meeting of BIA, participants in AIA were requested to list the actions that need to be taken by indicator.

3.2.1.1 Sustainability mission

When reporting the learnings about the sustainability mission, participants reported that the mission and vision of the AIA has not been yet enough articulated. It is important to distinguish between the mission and vision of the AIA and the ATELIER project. It is not clear how the AIA and other WPS relate to each other in relation to the mission. There is a need of developing a clearer link between the mission, project, tasks, and activities.

Regarding the perceived ownership among AIA partners, participants reported that this still need to be developed. They feel the implementation of the IA is more driven by the project proposal commitment rather than by a perceived value. It is also important to mention that the meaning of the sustainability mission was not clear for all the participants. In fact, some reported on the sustainability goals mentioned in the project proposal.

When asked about what others can learn from the AIA, participants reported on the importance of initiating an IA by formulating the ambition in terms of mission, vision, and strategy.

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3.2.1.2 Value Proposition

Participants reported AIA has not yet defined a clear value proposition for the different stakeholders outside of the project scope. Amsterdam Innovation Atelier still need to define what is the value proposition for its core members. Moreover, AIA should work on defining its target group and value proposition for the parties outside of the project. Some participants see the PEV demonstrators as an opportunity to define the value proposition of AIA. To increase the visibility about AIA, results should be better communicated. At the same time, it was not clear if ATELIER or other party should have taken the lead of the communication.
Based on the previously described outcomes, core team members will discuss the value of the IA and will reevaluate the value proposition of the AIA by defining the tangible value and performing a theory of change exercise (from goals to dependencies and actions).
When asked about their recommendations to replicate the IA participants provided three recommendations:

- During the initiation of the project define the value proposition, the stakeholders, budget, and a stakeholder engagement strategy. Please also consider citizens are part of your stakeholders' group.
- Allocate time to define the value proposition together with all the participants and iterate on it during the project execution.
- Make sure experience and knowledge from the different partners and project execution is integrated.

3.2.1.3 Strategic coordination

Participants reported the strategic coordination is not embedded in the decision-making process. The ATELIER project was still not embedded on the strategic level of core team members. Moreover, ATELIER was not well connected to the other IA and to the different energy transition initiatives active in Amsterdam.

Following the outcomes of the reflection, participants suggested to find a high-level sponsor in the municipality to embed the project at the strategic level, to connect the project to existing networks and to evaluate if there are other stakeholders that should be incorporated. Regarding the internal coordination they recommended to connect better WP3 activities (e.g., agenda, open innovation activities) with the WP4 progress discussion.
Participants provided the following recommendations for the replication of the IA:

- Secure high-level commitment from the key stakeholders to ensure they are supported by the organization.
- Develop a strategy, communication process and assign roles and responsibilities inside of the IA.
- Ensure there is a good communication between the WPs and the IA.

3.2.1.4 Open Innovation activities

When reporting the open innovation activities stakeholders reported to be satisfied about the workshop's topics and audience. Workshops made them more aware about the issues and learnings and allowed them to interact with other cities. Some participants reported that the goal and follow-up actions are not always clear. They

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suggested to organize smaller groups of experts and to make sure the insights are well communicated to the team. They also suggested to better integrate the PED issues with the activities and WPs.

Participants recommend thinking about activities that can attract new stakeholders and disseminate the AIA results. They also recommended to find a physical location and have a regular presence of the AIA by developing a program of activities.

It is recommended to the Innovation Ateliers to explore a different type of activities to reach more potential partners and make the IA more valuable.

3.2.1.5 Learning and Knowledge diffusion

When talking about the lesson learned participants reported that there is a need on improving the communication between PED and other AIA partners. This sharing can lead to the identification of relevant issues, insights, potential solutions, and innovation pathways.

Following the outcomes of the discussions, participants recommend developing a reporting and dissemination strategy targeted to each internal and external stakeholder. They recommended to also include the next steps in the communication.

Participants provided the following recommendations for the replication of the IA:

- IA should develop a strategy to share with the right stakeholders the lessons learned and reflect on them. Lessons learned should be also shared with cities and other projects. This will make more visible the added value of the AIA.
- To have a flexible project structure to easily integrate the learnings into the project implementation.

3.2.1.6 Organizational capacity

Participants reported a lack of commitment from the city in the IA, and reduced support due to the temporal absence of coordinator. Citizens are not engaged. Core team should work (take responsibility) on reporting the outcomes

Following the outcomes of the reflection, participants suggested to define a clear division of responsibilities between the core partners considering the commitment of each partner, and to map the IA implementation process so it can be replicated by Fellow cities.
Participants recommended to other IA ateliers to select carefully the local partners based on their commitment and interest, as well as to allocate the required funding to engage them.
Among the final observations, participants were interested in learning about the differences and commonalities of the two Lighthouse cities IA. Some reported that they would like to learn more from the Amsterdam Innovation Atelier implementation.
The complete AIA monitoring report can be found in the Report on monitoring results AIA 2021.

3.2.2 Bilbao

The BIA reflection meeting took place following a hybrid format in September 2021. The goal of the meeting was to reflect about the learnings of the implementation of the Innovation Atelier in Bilbao and to validate the M&E framework. After an introduction

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about the monitoring goals and the key indicators, participants were invited to reflect, by following the key indicators, about what they have learned and what other IA can learn from the Bilbao Innovation Atelier.

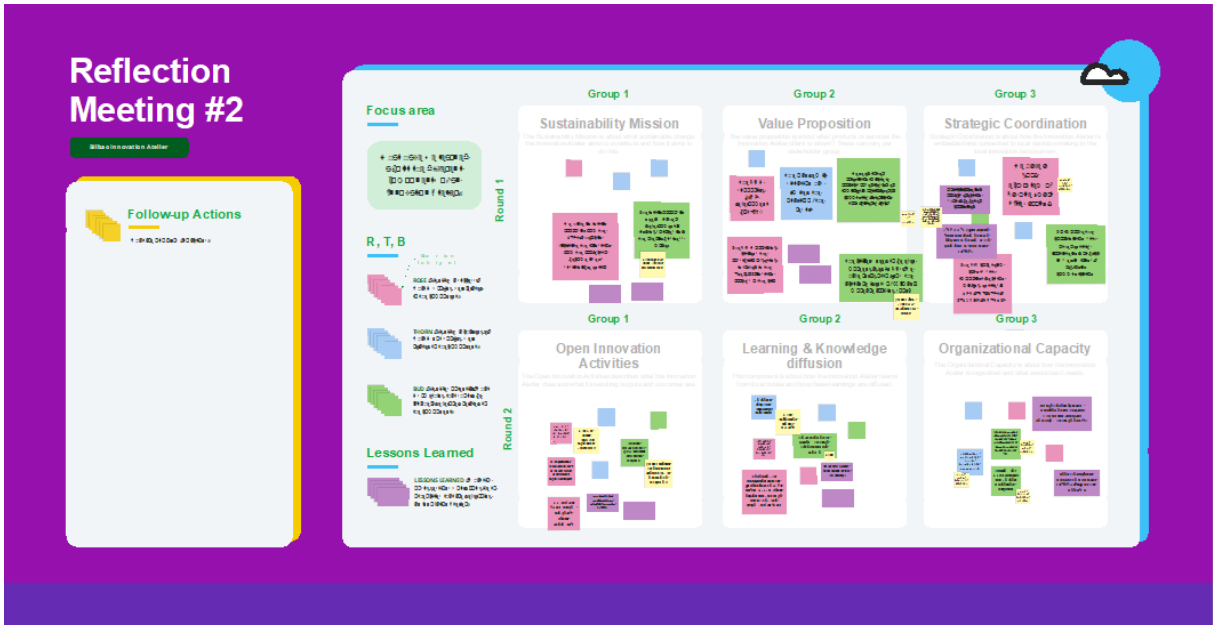

Figure 10 10 Final Miro board of the BIA Reflection Meeting

3.2.2.1 Sustainability mission

When describing the sustainability mission, they reported to have an initial proposal from one of the partners to make the IA a self-sustainable entity. This proposal needs to be further developed to include funding sources and business model. The description made clear that the response was focused on the self-sustainability of the IA rather than on the impact that the BIA aims to create.

After further clarifications, the BIA sustainability mission was defined promoting a sustainable model for energy transition and contributing to the development of the Bilbao City Vision 2050 and the energy transition strategy. This can be achieved by engaging relevant stakeholders working on energy transition and by making Zorrotzaurre a Positive Energy District.

3.2.2.2 Value Proposition

The value proposition was defined as “engaging citizens in taking an active role in the city energy transition process”. Engaging citizens is still a challenge in BIA. Engagement must be increased, and new-coming residents need to be integrated to Innovation Ateliers.
No recommendations were provided by the participants about the replications of the IA.
After further clarifications, engagement comments were related to the workshop activities and not to the value proposition. The BIA value proposition was defined as: disseminating progress and results of the ATELER project, sharing knowledge and

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results with other projects, delivering best practices on how to upscale solutions in other city districts, and collecting feedback from citizens.

3.2.2.3 Strategic coordination

Bilbao reported to have a strong core team consisting of important decision-making entities (COB, EVE, CEPV, TECNALIA, UDEUSTO) and to be part of a regional smart city initiative. The coordination can be further improved by integrating other private and public entities and by developing interregional links.
Participants provided the following recommendations for the replication of the IA:

- Coordinate the political cycles and project execution.
- Include a good and representative selection of the stakeholders in the core team.

3.2.2.4 Open Innovation activities

When reporting the open innovation activities stakeholders reported to find the workshops about the *city vision* and the *financing instruments* interesting and relevant. In fact, the city of Bilbao reported to be interested in the financial mechanisms. They also reported to be positive about the outcomes.

They recommended to other IA to organize very participative and attractive concept.

3.2.2.5 Learning and Knowledge diffusion

Participants reported that BIA, especially with its workshops, has been able to attract non-traditional stakeholders including citizens and to create new knowledge with them. The SWOT (April 2021) analysis workshop was joined by more than 40 participants interested in participating in the City Vision Process. In this process, citizens and other non-traditional stakeholders should be more involved.

Participants reported they need further orientation to achieve products or services closer to market (e.g., mobility, energy communities, interaction tools, batteries).

Participants recommended to other IA to engage citizens since the early stage of the project.

3.2.2.6 Organizational capacity

When discussing about the organizational capacity, participants reported that municipal teams typically do not have time for open innovation in their daily activities and the teams working in innovation still need to be connected to the BIA. Participants also reported they need more experts to contribute to the financial tools workshop.

Participants provided the following recommendations for the replication of the IA:

- Keep track and monitor the IA implementation and activities.
- Municipal human and financial resources should be proportional to the expectations.

Participants reported to find the Reflective Monitoring session valuable but, not leading to new information or insights. The complete AIA monitoring report can be found in the Report on monitoring results BIA 2021.

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3.2.3 Main findings

M&E were not always clear for the participants (AIA/BIA). The sustainability mission key component was misunderstood by participants in both IA and more explanations about the monitoring approach would have been required. The M&E key components proved to be a good guide to monitor the different aspects of the Innovation Ateliers.

BIA has established a value proposition that is relevant for all the stakeholders outside of the project scope. Amsterdam still needs to work more on defining a value proposition that is relevant for all the stakeholders and will support the continuity and extended impact of the AIA.

Bilbao has defined an effective strategic coordination by engaging key stakeholders interested in working on the energy transition process in the core IA team. Amsterdam needs to work on positioning the project at a more strategic level in the partners agenda and to link it to other existing networks working on similar projects.
Both IA Ateliers reported to be satisfied about the workshop's topics and execution. In Amsterdam some suggestions were made to improve the follow-up activities and impact. Bilbao reported to be positive about the outcomes and impact of the activities. Workshops proved to be an effective method to address the challenges coming from the implementation of the IA and to engage other stakeholders outside of the project.

3.3 Maturing a PED Innovation Atelier: Condensing and sharing knowledge with Fellow cities (2022)

The third year focused on the monitoring by using the key indicators and on condensing and sharing knowledge with Fellow cities about the implementation of IA.

The results reported in this section are the outcomes of the different monitoring activities in the two IA with a particular focus on the reflection meeting performed during the cross-city event in Matosinhos together with the Fellow cities. Additional results or progresses were included in their respective section.

In the context of the general Assembly of the EU H2020 ATELIER project in Matosinhos, our partners TNO and AMS institute organized a Cross city event workshop on Innovation Ateliers in June 2022. The goal was to support Fellow cities into creating their Innovation Atelier by sharing practical examples (results, outcomes), experiences, and lessons learned resulting from the implementation of the Innovation Ateliers in the Lighthouse cities: Amsterdam and Bilbao.

The workshop was divided in two parts. In the first part the two Lighthouse cities were invited to present their Innovation Ateliers and their experiences following the M&E framework. In the second a part, Lighthouse cities shared their experiences with Fellow cities. The outcomes of the individual IA will be reported in the respective sections. The results of the reflection with the Fellow cities will be reported in the main findings.

3.3.1 Amsterdam

Guided by the findings of the previous monitoring activities about the need of defining a clear and shared sustainability mission and value proposition, AIA atelier organized a set of meetings with the core team in Q1 and Q2. The meetings resulted in an AIA mission statement, the definition of set of unique selling points and a first iteration of

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the value proposition. The outcomes were presented in the ATELIER General Assembly in Matosinhos.

In this section we report of the outcomes the Cross City Event and on further developments mapped during other monitoring activities in 2022.

3.3.1.1 Sustainability mission

The Sustainability mission of AIA is to bring together and connect citizens, businesses, and local governments into making the built environment energy positive. This is done by establishing a multi-disciplinary network (users, producers, governments, and knowledge institutions) that co-create, implement, and accelerate innovative solutions.

3.3.1.2 Value proposition

The AIA is a catalyst that supports innovations and the implementation of innovations through an excellent network of local experts. The AIA is part of a larger EU-wide network which consists of leading knowledge institutes, government, business, and energy communities. This network has developed a validated and integrated framework for developing and replicating positive energy districts in Europe, which can be adapted to the local context.

The AIA offers:

- Access to a pool of PED experts
- Adaptable framework for PED development
- Integrated funding strategies
- Knowledge on governance, development, design, and community building
- Innovation Atelier meetings to connect, accelerate and realize PEDs

The activities in 2023 will focus on further refining the AIA value proposition, making sure it is relevant for the strategic agendas of the existing partners and to be attractive for other key stakeholders to join.

3.3.1.3 Strategic Coordination

AIA has established a strategic coordination by integrating quadruple helix partners in their core team (local government, businesses, knowledge institutes and citizens). Government is represented by the City of Amsterdam. Businesses are represented by Spectral. Citizens are represented by Waag and, AIA will assess potential strategies to include a member of the energy communities in the IA. TNO and AMS represent the research institutes. In addition, the Amsterdam University of Applied Sciences has joined the AIA core team as coordinator of one of the innovation tracks.

3.3.1.4 Open Innovation activities

AIA has defined its open innovation activities and services as follows:

- Organizing educational expert meetings and workshops on relevant topics.
- Offering targeted consultancy to overcome barriers in the development phase
- Contributing to projects with specialized financial, legal, social, and technical advice.

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- Supporting knowledge exchange with a specific focus on the developments of common solution; collective business cases, district-level solutions, integrated system design and community building.
- Facilitating the dialogue between research institutes and practitioners.
- Providing a safe space to explore new solutions and innovations and get experts opinions.
- Providing a point of contact and knowledge for citizens
- Creating a knowledge database through recording lessons learned and best practices and mistakes from operational projects. Universities and knowledge institutes can use the AIA to access to real-life examples and data. Business could use it to access expert knowledge and consultancy. Citizens could use it for accessing knowledge about energy transition and engaging in co-creating PED projects. Local governments will get access to real-life examples and learnings, experts, and data to support their decision-making process.

The AIA open innovation activities will be further elaborated in 2023 based on the outcomes of the business model activities and the maturation of the mission and vision.

3.3.1.5 Learning and Knowledge diffusion

The learning and knowledge diffusion is performed by organizing meetings and workshops with internal and external stakeholders about relevant topics related to innovation tracks. Among the different activities we can mention: the design of the energy market, grid congestion problems, data governance. Citizen engagement activities have been also performed with the future residents of the Amsterdam pilot.

Workshops and meeting outcomes are disseminated in the ATELIER website. AIA will also investigate how to further disseminate the outcomes of the Innovation Activities among relevant stakeholders.

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3.3.1.6 Organizational Capacity

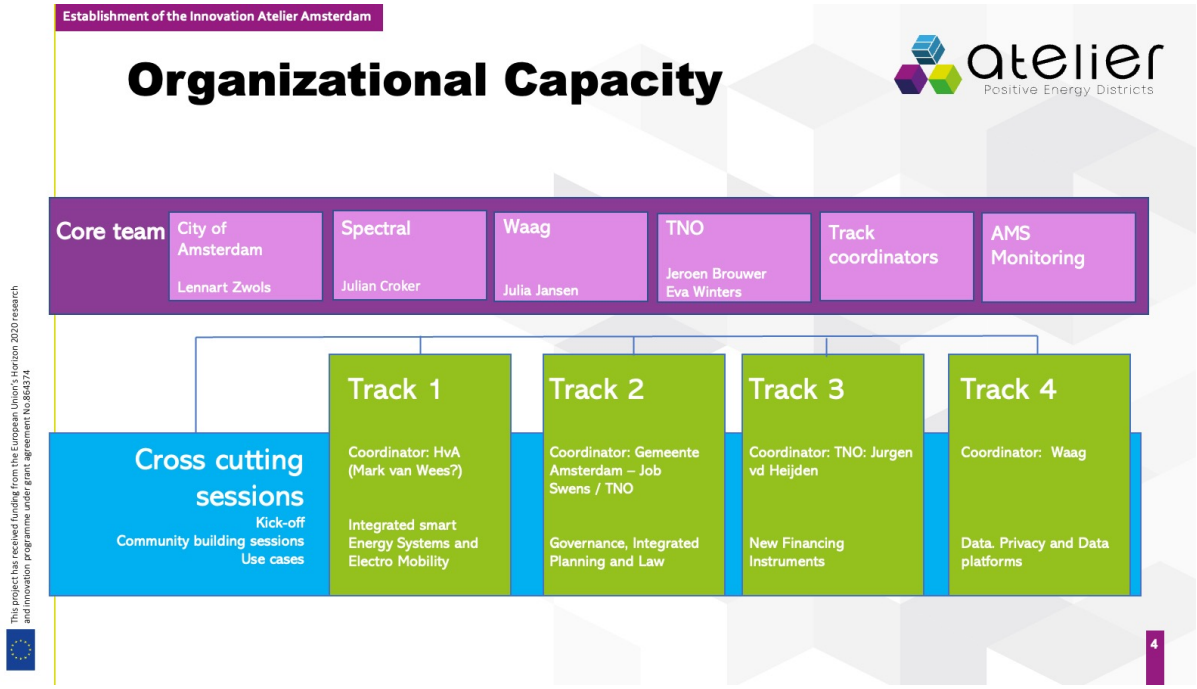

Figure 1111 AIA organizational capacity

Then organizational capacity of Amsterdam is structured in two parts: Atelier Amsterdam Core Team and the Innovation track coordinators. To facilitate the exchange of knowledge, innovation tracks coordinator had been integrated in the AIA core team.

The core team functions as a catalyst to accelerate innovations, and its activities consist of:

- Supporting the track coordinators in organizing Innovation Ateliers.
- Building an active network to facilitate Positive Energy Districts.
- Facilitating the dialogue between various stakeholders.
- Identifying issues and barriers to realize PED's.
- Organizing meetings focused on problem solving and mitigation, and organizing cross-track, multi-disciplinarily sessions, based on specific challenges or use cases.

The innovation tracks are responsible to initiate and organize workshops on relevant topics for their track. The track coordinators will contribute by developing services for the AIA relevant for other stakeholders outside of the AIA network. The tasks of the innovation tracks will be further developed in 2023 based on the outcomes of the AIA activities.

At the end of the 2022 a coordinator for each Innovation track was assigned. HvA as track coordinator joined the AIA core team.

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3.3.2 Bilbao

3.3.2.1 Sustainability mission

The sustainability mission of BIA is promoting a sustainable model for energy transition and contributing to the development of the Bilbao City Vision 2050 and the energy transition strategy. To achieve this mission, Bilbao has engaged key stakeholders working on the energy and climate transition into their Innovation Atelier. BIA stakeholders are actively contributing to the co-creation of Bilbao City Vision 2050, to the transformation of Zorrotzaurre into a Positive Energy District, and to contribute to participative processes by organizing thematic workshops.

Value proposition

The value proposition of BIA is described as follows:

- Disseminate progress and results from the development of ATELIER smart urban solutions.
- Engage the local ecosystem in tailoring and implementing solutions in Bilbao by identifying local specificities, barriers, and potential solutions. Moreover, by fine-tuning business models for the proposed innovations.
- Share knowledge and experiences with other Smart City projects and solution developers.
- Deliver useful feedback and best-practices to upscale the solutions to other Bilbao districts and to support replication at the Fellow cities.
- Collect feedback from the citizens through the District Councils.

3.3.2.2 Strategic Coordination

BIA has established a clear strategic coordination by integrating triple helix partners in their core team (government, industry, academia). In the BIA, industry stakeholders (IBE, TEL, CEPV) are well represented and the business perspective is represented by DBS. Academia and research (TEC, DEU) are directly involved. BIA has also created a direct link to the city decision making (COB) and regional authorities (EVE).

Figure 12 12 BIA Core team

3.3.2.3 Open Innovation activities

BIA organizes workshops structured into 4 thematic tracks involving stakeholders from the quadruple helix, by also involving citizens. The workshops have a key role in collecting feedback from stakeholders, fine-tuning the developed solutions, identifying

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additional needs and opportunities, learning from other Smart City projects and engaging citizens into the city energy transition process.

6 workshops will be organized within each Innovation track along the project lifetime (5 years). The coordinators of the Innovation tracks will define proposals for workshops (tentative date & agenda, topics, audience involved), which shall be validated by the Core Team. Some workshops can be defined as "multi-track ", according to the topics addressed.

In BIA multiple workshops were organized to address different needs of the project and of the local stakeholders engaged in the energy transition. Financial, governance, city strategy, smart buildings and collaboration were some of the topics of the workshops.

3.3.2.4 Learning and Knowledge diffusion

The learning a knowledge diffusion is performed by analysing and discussing the outcomes of the in the BIA Core Team monthly meetings. Following a template an internal report is drafted and disseminated internally. Workshops outcomes are also disseminated with press releases and posts in social networks and websites (ATELIER & corporate websites).

3.3.2.5 Organizational Capacity

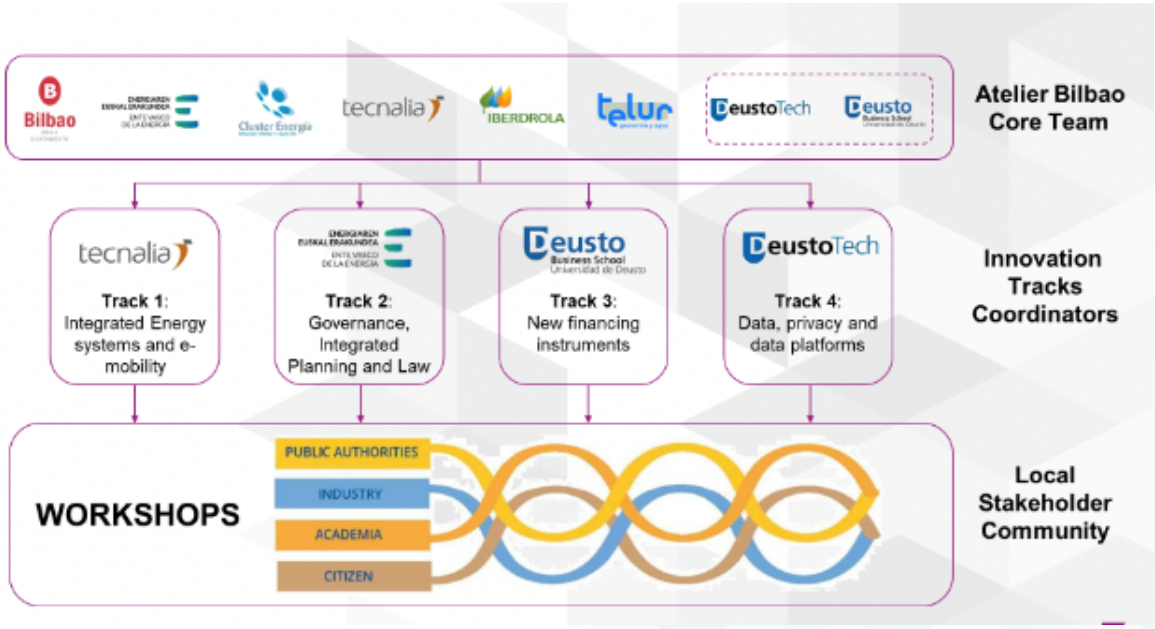

Figure 13 13 BIA organizational capacity

Then organizational capacity of Bilbao is structured in three parts: Atelier Bilbao Core Team, Innovation track coordinators and local stakeholder community.

The BIA core team responsibilities are:

- Defining the mission, vision, objectives, structure, and operation for the Bilbao Innovation Atelier
- Coordination, monitoring and supervision of the 4 Innovation tracks

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- Activity planning and coordination of the workshops in the 4 Innovation tracks
- Foster stakeholder engagement and participation in the workshops
- Envision the sustainability model for the Bilbao Innovation Atelier

The four Innovation tracks are coordinated by a member of the Atelier Bilbao Core Team and are responsible for:

- Defining workshops proposals (tentative date & agenda, topics, audience involved) to be discussed and validated by the Core Team
- Organize, invite, disseminate, and provide the necessary content and materials for the workshops.
- Deliver feedback to the Core Team on the results obtained from each of the workshops
- Deliver best practices to facilitate the replication of the concept by the Fellow cities, produce the required contributions to the related project deliverables about the workshops activity and results for each Innovation track

Local stakeholders' community:
The stakeholder community will be invited to attend and/or participate in the workshops organized in the different Innovation tracks. Feedback and learning. Analyze, Feedback, prioritization: post-its. Working sessions has been developed and small pilots, project proposals fostered by the city council. It is important to have a recurrent group of participants that joins the workshop.

The stakeholder community groups that will be addressed in each workshop will be identified by the Core Team (according to the Innovation tracks and the topics to be dealt with at the workshops).

3.3.3 Main findings and interactions with Fellow cities

During the last year of monitoring activities, Amsterdam and Bilbao presented two compelling implementation cases proving the relevance of Innovation Ateliers for cities when implementing Positive Energy Districts projects.

AIA reported important progress with respect to the previous monitoring stage, especially on the definition of their mission and value proposition. These actions derived on the two strategy meetings conducted with the AIA core team and on the outcomes of the previous reflection meetings. BIA presented a maturation of their innovation Atelier structure and in its effective operations. These improvements resulted in an improved value generation for the IA and for the local ecosystem working in energy transition. From the outcomes of the monitoring activities, BIA and AIA seem to converge in a similar IA organization, even if they started with different approaches: Amsterdam from learning by doing and Bilbao from defining and maturing.

The Matosinhos Cross-city event was the opportunity to validate the relevance and engaging on a larger discussion about IA with the Fellow cities. During the session, the Lighthouse cities presented two successful translations and implementations of the concept of Innovation Atelier. This was the first time Lighthouse cities presented their IAs and they engaged in a conversation about the learnings and replication.

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Some of the challenges identified during the session were related to restrictive policies, unexpected construction challenges and citizen engagement.

Policies do not always follow the speed of innovation and sometimes can limit the pilot implementation scope. At the same time, learnings derived from the Innovation Ateliers could inform policy makers and policy about the regulatory needs.

COVID-19 and other recent events, which were not predicted in the project proposal, had an impact in the Amsterdam project. These include the increase of construction materials cost and delays in the construction times. For future proposals it is recommended to include potential mitigation strategies for project delays and for increasing cost of materials.

Citizen engagement was also mentioned as one of the challenges each pilot is facing in the implementation of the Innovation Ateliers. Energy topics are often difficult to understand for local communities sometimes resulting in oppositions to the project. BIA reported a successful citizen engagement experience during the workshops about the city vision and the energy transition. However, it is not yet clear what could be the value proposition for vulnerable population in implementing PED. This topic will be addressed in the upcoming innovation tracks.

Despite the contextual, legal, and cultural differences of the two pilot implementations, there are common challenges and relevant solutions that can be shared between the two pilots and with the Fellow cities. To facilitate the exchange of experiences Fellow cities will be put in contact with the Innovation Track coordinators. Some Fellow cities visits already occurred and new ones have been planned.

The outcomes of the Matosinhos Cross-city event were mainly focused on the specific challenges each city is experiencing in establishing and implementing their IA rather than on the IA concept itself. Further events with Fellow cities served to reflect more on the replicability of the IA. The 3rd City Event in Budapest facilitated a discussion about the need of linking the mission of the Innovation Atelier to the 100 EU Cities Mission. Moreover, thanks to the stakeholder's roadmap workshop, Fellow cities reflected about their strategic coordination and organizational capacity. From the outcomes of the different interactions, it emerges the relevance of knowledge exchange about experiences and challenges cities are experiencing when implementing their IA.

Despite the specifics given by each local context and selected technological solutions, pilots are experiencing similar challenges (e.g., citizens engagement, energy communities, funding mechanisms). This has proven an opportunity for best practices and lessons learned between the IAs.

The convergent developments in the definition of the Innovation Ateliers in Bilbao and Amsterdam seems to indicate the broad application and replicability of the Innovation Atelier concept and its value in supporting cities in accelerating energy transition. Moreover, considering the outcomes of the interactions with Fellow cities, the IA concept is proving to be valuable in the establishment of their Innovation Ateliers.

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4 Lessons learnt about Innovation ateliers

In this section we describe the key lessons learned about the implementation of the Innovation Ateliers in the Lighthouse cities. These lessons learned are the result of the different monitoring activities performed at the different stages of the implementation of the IA in Bilbao and Amsterdam. First, we describe the lessons learned in each IA and then, we describe the common lessons in the two implementations and provide some recommendations for the replication of the IA in Fellow cities as well as in Lighthouse cities.

4.1 IA Amsterdam

The need of a mission and value proposition came as a result of the monitoring activities and the reflections conducted during the first two years. During the reflection meetings, key partners of Amsterdam Innovation Atelier were being invited to express their reflections and lessons learned on the Innovation Atelier performance. One of the main critics was that for the Innovation Atelier partners, it was still not clear what was the main intention and overarching objective of the Innovation Atelier organisation and its activities. A number of strategic workshops were organized with representation of the key partners, to identify and formulate what it is this Innovation Atelier for. As a result of these strategic workshops, a shared vision and mission statement have been formulated, combining the expectations, needs and ambitions from the various partners of the Innovation Atelier. In the sessions that followed, AIA focussed on defining the main client for the Innovation Atelier organization and activities, and what would be the product / service to offer. This line of strategic thinking and working together will pave the way eventually to a sound business plan for sustaining the Innovation Atelier in Amsterdam beyond the end of the ATELIER project. In parallel, AIA is working on identifying how to link its value proposition to the strategic agendas of existing partners and other potential key actors in the ecosystem.

Amsterdam Innovation Atelier had an iterative process in establishing the strategic coordination. The establishment of a core group leadership and the iterative improvements introduced to their organizational capacity played a key role in facilitating the conditions to reflect the coordination strategy. Learning by doing, what was needed and what worked best.

AIA integrated key actors representing the quadruple helix (business, research, government, citizens) in their core team. Citizens are represented in the core team by Waag. Public authority is represented by the municipality of Amsterdam, the private business partner represented by SPECTRAL, and R&D is well represented by ASM and TNO. One additional partner, the Amsterdam University of Applied Sciences, has joined the core team as an innovator track coordinator.

The lack of ownership of the AIA reported by the core team partners initially derived from the unclarity about the added value of the IA for the different partners has been subject of discussion. To address this, AIA will work on further defining the concept of their IA. The goal ultimately is to define an organization (value proposition and business model) that is perceived valuable to the ecosystem working in the energy transition, which is aligned to the strategic agendas of each partner is connected to the existing

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projects and activities and, most importantly, it is sustainable after the ATELIER project.

AIA approached their innovation activities from the challenges faced by the PED demonstrator projects in Amsterdam. Relevant topics as grid congestion, energy communities, business models, consumer engagement and data and on how to find place to add more renewable energy production in the PED area were addressed during the open innovation activities.

The growing interest among the Fellow cities about the topics addressed by the AIA innovation activities led to the organization of workshops and presentations about energy communities, district heating and learning on how establishing an IA. Further innovation activities will be conducted during the Fellow cities' events and cross city learning events.

The local ecosystem in Amsterdam also expressed interest on some of the topics addressed during the AIA innovation activities. To support this request, AIA is evaluating how to open its innovation activities to the local ecosystem and frame the topics in a broader way.

In 2023, the AIA open innovation activities will also focus on the replication and up-scaling potential of the developed solutions and in creating synergies with existing projects and initiatives active in Amsterdam (e.g., LIFE project). The goal is to identify common goals and needs, evaluate the impact, collect lessons learned and promote knowledge sharing. AIA will further organize activities related to the PED financial models and IA business cases in general. Some workshops with the residents of the pilot will be organized to address topics related to data governance.

After the improvements performed to the organizational capacity, AIA have established a successful internal learning knowledge diffusion strategy. Starting from 2023, AIA plans to improve their external learning and knowledge diffusion by creating synergies with existing projects and initiatives active in Amsterdam.

In setting up the organization capacity of the Amsterdam Innovation Atelier, the team of core partners (City of Amsterdam, Spectral, AMS and TNO) were inspired by the way Bilbao's Innovation Atelier network was organized. The way BIA is structuring the responsibility and the related activities at different levels, and the ways the Innovation Tracks were connected through national points of contact, was perceived as very effective and inspired the Amsterdam team to organize itself in a similar way.

In Amsterdam, the lack of connection between the activities in the Amsterdam Innovation Atelier, and the progression of the (technical) implementation of PED demonstration activities was not perceived initially. The reason for this perception is that there was a close connection between the real estate developer (REPUBLICA) and the partners in the core team of Amsterdam Innovation Atelier. However, after the first workshops and session on PV power issues, the need of stronger connection became more apparent. After these sessions, a working solution was found to smartly combine the two separate lines of activities. From the beginning of 2022, a representative of the Amsterdam Innovation Atelier is invited every time a progress meeting is planned in WP4 to be informed about the update of implementation of measures and demonstration activities in Amsterdam. Additionally, a specific timeslot

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is being reserved also on the technical update agenda for sharing and discussing the activities of the AIA core team.

When engaging partners outside of the ATELIER project AIA faced some challenges related to lack of commitment because of lack of budget. During the first year of the project, the Innovation Atelier network relied on the representation of the local residential perspective from one of the ATELIER non-partners, being a separate housing community, right in conjunction with the Amsterdam PED area. This non-partner was very much willing to participate in the Innovation Atelier organization and content sessions but required a financial contribution also to cover their costs. This was arranged in the first year. However, due to reasons outside the influence of this work package, the relation between this non-partner and the project team ended after year one, and for representing the residential perspective, a new partner had to be found within the boundaries of the ATELIER consortium to follow up on actions. Similar issues were also reported by BIA and the Fellow cities.

Amsterdam followed a different, yet promising, approach in the definition of its IA. This was derived by an iterative process which focus on doing-first and abstract later. The outcomes of the project activities led to findings that were used for the creation of the mission and vision, and the overall framework to operate. AIA also represents a successful example of IA replication as they relied on the learnings from BIA to implement its organizational capacity.

4.2 IA Bilbao

In BIA, the Sustainability mission and the value proposition was defined since an early stage of the implementation and did not experience any relevant changes during the IA maturation. Given its connection to the to the city long term vision and to the energy transition strategy, it played a key role in guiding and engaging the different stakeholders in the BIA activities. As a result, the Innovation Atelier was defined as an organization that supports stakeholders in getting organized and aligned their long-term activities. In 2023, Bilbao will focus on promoting the conditions for the replication of PED districts and on the City Vision 2050.

BIA had defined clear strategic coordination strategy integrating key actors representing the triple helix (business, research, government) in the core team. The previous collaboration experiences among the partners and the alignment achieving their organization strategic agenda towards energy transition with the BIA were important aspects in the definition of a successful coordination strategy. Citizens were engaged in the open innovation activities. However, they are not represented in the BIA core team.

BIA has developed their open innovation activities based on the innovation atelier implementation needs and at the same time has framed them in a broader way. This has resulted in activities that are also appealing for other stakeholders that are not directly involved in the BIA but are working in similar initiatives or are simply interested in learning more about energy transition. BIA has also shown the capacity of adapt their program to be more relevant to the needs of the ecosystem.

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The BIA open innovation activities counted on a stable group of participants that contributed to the creation of trust and synergies, and to the construction of a shared (global) vision of the energy transition among the local ecosystems.

To promote the participation of citizens in the open innovation activities, BIA has relied on the citizens organizations ("Consejos de distrito") to promote the events targeted to the general pilot and to the residents of the pilot neighborhood. Events related to the city vision and energy transition proved to be attractive for citizens.

In 2023, BIA plans to organize different workshops and activities and to identify additional needs and opportunities for their open innovation activities. Different topics, such as, the energy communities, the use of data for PED monitoring and, financing methods and public-private collaboration will be addressed during the open innovation activities.

AIA has implemented a learning and knowledge diffusion strategy, framing their communication from the ATELIER project. During the BIA core team meetings, partners analyse and discuss the outcomes of the different activities and an internal report about the results of the activities is disseminated internally.

BIA also established a successful learning and knowledge dissemination with external partners by adapting the communication in the workshops, to the different target stakeholders in each activity. Moreover, BIA has also managed to position the ATELIER project in the ecosystem by framing ATELIER as the context of the specific workshop. Next, BIA will focus on developing a connecting framework about energy transition to further link the different IA activities and to facilitate the knowledge sharing among the local ecosystem.

In defining the organizational capacity, appointing a clear leadership, integrated in fostering the connection between different stakeholder organisations is a success factor within an Innovation Atelier.

The Bilbao Innovation Atelier core meetings were always in conjunction with the update meetings of WP5 related to the progress and implementation of Smart Urban solutions in the PED Demonstrator area in Bilbao. This way of organizing lead to an acceleration of the Innovation Atelier activities that could be immediately linked to the issues or knowledge obtained from the demonstrator discussions.

Stakeholders requires dedicated per-hour budget to be able to participate in the IA, commit and contribute to an Innovation Atelier in an open way and without being distracted by daily routines. This is especially true for stakeholders that are no formal partner of the ATELIER project. This issue was also reported by AIA and by the Fellow cities.

The organizational capacity structure of BIA did not have relevant changes except for the integration of another university group: DEUSTO Business School (DBS). The integration was motivated by the need of having a partner working on the business part of the BIA.

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In Bilbao the structure of the Innovation Atelier has been defined since its early establishment. Key local stakeholders had been integrated in the organizational capacity of BIA making sure their strategic agendas are aligned to the mission, vision, and project outcomes. In the same way, open Innovation Activities have been defined on a broader way, making sure they are relevant for the local ecosystem and, at the same time, support the challenges encountered during the BIA implementation. Bilbao Innovation Atelier has also shown its capacity of maturing and integrating learnings from the project outcomes into their organization and into the Innovation Activities. This can be seen in the integration of DEUSTO business school into the BIA core team or in the organization of activities related to the outcomes of the previous workshops.

4.3 General learnings about implementing Innovation Atelier

The PED Innovation Atelier approach has contributed to both pilots in accelerating the uptake of PEDs and the development of technologies and services related to energy transition in the city. By coordinating the collaboration between partners in innovation and implementation, for instance, and supporting the implementation process through organising workshops addressing relevant questions or issues.

The Sustainability mission in BIA was defined in the early stage of the establishment and did not experience any relevant changes during the further IA maturation. Since the beginning it was aimed at supporting the Bilbao City Vision 2050 and the energy transition strategy. In AIA, instead, the approach was the opposite, as the definition of the mission and value proposition was the result of learning by doing, through the extraction of findings based on the outcomes of project activities. Despite the different approaches, the mission seems to be converging with a focus addressing the urgent energy transition challenges the city of Amsterdam is facing. Following the example of BIA, it is recommended to Fellow cities to align their IA mission and value proposition to the implementation of PEDs in city vision and long-term energy transition strategy. In the case of the Fellow cities selected among the EU cities mission, it is recommended to align their IA mission and vision with the EU mission for climate-neutral and smart cities goals.

In both Innovation Ateliers the value proposition focuses on engaging and delivering value to the local ecosystem. This is achieved by disseminating IA progress and results, by promoting knowledge sharing and collaborations, by sharing best-practices and frameworks to implement and upscale solutions, and by providing access to a network of experts. In addition, AIA and BIA also provide their partners support for funding strategies and business models. Given the communalities of the value propositions defined in the two Lighthouse cities, there is a high potential for replicability in the Fellow cities, as well as further upscaling in the Lighthouse cities.

AIA and BIA integrated key actors representing the triple helix (business, research, government) in their core team. AIA also integrated one partner representing the citizens and it is planning to integrate one city representative in the core group. BIA has engaged the citizens in their open innovation activities. However, none of the two IA organisations has yet defined a clear strategy to integrate the views of citizens at a

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strategic level. In BIA the industry partners belong to large organizations, working in strategic projects and questions. This resulted in an extended impact of the outcomes of the IA, focussing more on city level.

Based on the learnings derived from the Bilbao and Amsterdam these are the key recommendations to establish a successful strategic coordination: Identify and integrate the key stakeholders, making sure they are representing the quadruple helix (business, research, government, citizens); To increase the engagement and impact, make sure the IA is aligned with strategic agendas of the partners. Moreover, it is recommended to allocate funding or find funding mechanisms to support the active engagement of the different stakeholders (outside the core team of partners for instance).

BIA has focused its open innovation activities on topics that are relevant to the broader community. It has established a clear communication about the project frame and targeted their activities to the relevant public. It created a core that is always participating. It has managed to attract citizens interested in learning and contributing to the city vision and energy transition. This has proven as an effective way to collect citizens views even if the final residents (as most of them are unknows yet) cannot be engaged.

AIA has mainly framed their activities with a focus on the implementation of their IA and on the challenges faced by implementing the PED. However, considering those challenges are common to other partners in addressing the energy transition, it is recommended to frame the innovation activities in a broader way too. This will allow to make activities more appealing for the existing partners and to engage other partners working in similar initiatives. It is also recommended to link the open innovation activities to other existing active initiatives and projects in the IA cities.

BIA and AIA have established a successful internal learning knowledge diffusion strategy by analysing and discussing the outcomes during the IA core meeting and by disseminating internal reports with the main outcomes. BIA established a successful learning and knowledge diffusion with external partners by targeting the communication about the workshops to the different relevant stakeholders in each activity. Moreover, BIA has also managed to position the ATELIER project in the ecosystem by framing ATELIER as the context of the specific workshop.

To establish a successful learning and knowledge diffusion strategy it is recommended to use internal reports and core meetings to discuss the outcomes of the IA activities. When communicating with external stakeholders it is recommended to establish clear communication channels targeted to the distinct types of actors. Press releases, social media post and websites (ATELIER & corporate websites) can be used to disseminate knowledge among different stakeholders and increase engagement. This will result in an increased learning of the local ecosystem.

BIA has established, since the beginning, a successful organizational capacity by integrating all the key BIA actors in the core team, and by assigning the lead of Innovation tracks to a core team member. The validity of the BIA organizational capacity has been proved by its successful replication in AIA. When defining the organizational capacity of an Innovation Atelier, it is recommended to appoint a clear

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leadership and to engage in the core team all the key actors including the track coordinators. Moreover, it is recommended to investigate strategies to integrate the citizens perspective in the core team.

Despite the cultural barriers, the specific legal framework of each city and the specific conditions of each city the Innovation Atelier concept has proven to be successful in accelerating the implementation of the PED and energy transition in each of the IA Lighthouse cities. This is because the Innovation Atelier focuses on the conditions, organizations and steps that are required for its establishment and maturation rather than on the specific solutions developed in each pilot implementation. This is further supported by the successful replication of the BIA organizational capacity in AIA and the many communalities between the two IAs.

From the outcomes of the activities performed together with the Fellow cities, in the ATELIER General Assembly and the city event in Budapest, it is clear that Lighthouse cities and Fellow cities are facing many similar challenges in their implementation. Restrictive policies, unexpected construction challenges, and citizen engagement were identified as common challenges. Engaging local communities in the IA is difficult, this is because there is not a clear value proposition for them to join and because energy topics are often difficult to understand. It is recommended to share the implementation challenges faced by the local ecosystem with the other IA, and to support the knowledge exchange between local stakeholders and the organization of common innovation activities.

Following the outcomes of the monitoring activities, it has been proved that there are many opportunities for knowledge exchange between the IA Lighthouse and Fellow cities. In this context, knowledge sharing between the pilots is key in removing the burden of finding strategies to overcome challenges that have been already addressed by other Innovation Ateliers. This is even more relevant when facilitating Fellow cities into establishing their own Innovation Atelier Organizations. For this it is recommended to improve the communication between the Lighthouse cities and Fellow cities about outcomes and learnings. Cross-city events, reflection meetings and improved communication between the partners engaged in the Lighthouse cities and Fellow cities can play a key role in the replication of the IA.

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5 Lessons learnt about monitoring

In this section we describe the main findings about the usage of the Reflective Monitoring in Action and the monitoring framework in the context of the implementation of the IA in Amsterdam and Bilbao.

- The possibility to conduct the monitoring activities at the same time in the two Lighthouse cities, and to follow the same method, leads to better data and insights about the IA. With this information it is easier to compare and derive learnings about IA.
- We learned that monitoring frameworks can be sometimes difficult to understand and navigate for stakeholders that are not fully familiar with the indicators. During the second monitoring stage, in fact, the sustainability mission was misunderstood by some of the stakeholders.
- Reflective Monitoring in Action is found to be an effective methodology to observe, analyse, reflect, and adapt the different observations about the IA establishment and implementation. However, it should be used as underling methodology embedded in the overall process (e.g., Reflection meetings) and not as a structure to report the findings.
- The Monitoring and Evaluation framework and its key components can be further simplified to fit the Innovation Ateliers developments and relate more to the project activities. However, given the different versions of the M&E that have been implemented for the monitoring already, this needs to be elaborated on further.
- An improved approach needs to be implemented in the discussion and reflection about the results of the activities. Results should be discussed by including the IA lead and other partners. Reflections about the results should be published soon after the workshop sessions also, alternatively, there is the risk that they become outdated or less relevant in the evolution of the process. It is also important to share the preliminary findings with the IA core team so they can take actions and report results and progress already. It is also recommended to integrate multiple RMA steps in one monitoring activity (e.g., observation, reflection, adaptation).
- When organizing reflection meetings, it is recommended to perform the activities with both Innovation Ateliers; or at least allow for cross city interaction to learn from the other. This will facilitate the exchange of experiences between the IA and the identification of strategies that can be implemented by other IA. To facilitate a better discussion, it is recommended to ask the Lighthouse cities to prepare in advance their reflections and to follow the key indicators described in the M&E framework. When possible, extend the invitation to the reflection meeting to the Fellow cities.
- The 3 online surveys held with the local leads of Innovation Atelier didn't provide substantial qualitative insights on the implementation and further direction. Partners do not have enough time to properly report the results in a survey.
- Mentimeter and other tools are great tools to increase participation, especially in the online format. However, they could be limiting in mapping the results or consensus, as they do not offer open answer. Moreover, in formulating the

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questions, it is advisable to consider that not all the stakeholders are familiar with the monitoring framework and methodology used.

- In the formulation of the questions, statements should be formulated positively to avoid negative reaction from the participants and welcome proactive feedback and actions.
- Language barriers had a repercussion on the observation process of the Bilbao Innovation Atelier. When possible, try to perform observations directly or define other alternative strategies.
- The above lessons and experiences with the evolved Monitoring and Evaluation framework are valued and will be used in tailoring the way of working (and framing) of the coming two years.

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6 Conclusions

This section reports on the main conclusions of the Innovation Atelier monitoring activities described in T.3.3. First, we introduce the main findings about the monitoring methodology and evaluation framework. Second, we report the main conclusions about the monitoring activities in the Lighthouse cities. Third, we summarize the lessons learned about the IA and its replicability. We conclude with the next steps in the monitoring activities.

The Reflective Monitoring in Action methodology proved to be relevant in conducting monitoring activities. However, it should be used as an underlying method integrated in the project activities (e.g., reflection meetings) rather than as a structure to report results. It is recommended to integrate more monitoring steps in one activity (e.g., reflection, adaptation, and report) or, if not possible, to reduce the time between activities, to avoid focussing on observations that are no longer relevant for the IA.

The monitoring framework and the definition of the key components, even if in an initial stage was not always clear for the partners, proved to be an effective to map key aspects of the IA implementation in the Lighthouse cities (strategic coordination, mission, vision, innovation activities, organizational capacity). It is recommended in the future to conduct the reflection activities with the two Lighthouse cities and, if possible, to also engage the Fellow cities. This will facilitate the sharing of best practices, lessons learned, promote interactions and collaborations, and support the co-creation of an IA concept.

The monitoring activities effectively supported the implementation of the IA in the Lighthouse cities, especially in addressing its challenges, and in the reflection about the implementation and learnings from other IA.

During the maturation of the implementation of the IAs, it was observed the two pilots were converging towards a common underlying definition of the IA concept. The replicability potential of the concept has been proved by how AIA developed a successful organizational capacity following the example from BIA. The replicability of the IA concept proved also to be relevant in addressing common challenges experienced by the Fellow cities in the defining the organization of their own IA.

The IA concept needs further mature on the support of long-term sustainability of the IA (i.e., supporting the IA after the project completion) and on and the development of a successful path to integrate the voice on citizens.

Based on learnings from BIA and AIA, several recommendations can be derived to implement a successful IA. It is important to connect the mission and vision to the strategic agendas of the partners, and to link it with other existing initiatives and long-term goals. Innovation activities while focusing on the challenges encountered by the pilots, are even more effective when they are framed in a broader way so that they can support the needs of the local ecosystem. Finally, it is recommended to engage key stakeholders (quadruple helix) in the Innovation Atelier core team.

In the following years, the monitoring activities will focus on continuing supporting the Lighthouse cities in the implementation of their IAs. The activities will also focus on the maturation of the IA concept and its replication potential. The outcomes will be reported in the D3.7 ‘Report on Impact and major lessons of the PED Innovation Ateliers in the

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Lighthouse Cities' due in June 2024 (M56). To support the implementation of the FC Innovation Ateliers and the validation of the IA concept, cross-city events and workshops will be organized and the results will be disseminated with Fellow cities.

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Annex I - Overview of criteria proposed by different authors

Types of input (and support):	Types of activities:	Types of outputs:	Types of outcomes:	Types of impact/change:
Guiding question:				
Steen (2017): • Implementation Location • Legal Authorization • Facilities • Materials • Technology • Funding • Working Space • Time • Expertise McKinsey (1970): A system "to measure the quality of the performance of a company": • Shared values • Strategy • Structure • Systems • Staff • Style • Skills	CoP MoLL (2021): • Facilitate interdisciplinary 'Problem identification' & 'Problem solving' of complex (urban) challenges through: ○ Set-up academic Research projects ○ Organize and/or host interdisciplinary co-creation workshops ○ Set-up student projects & theses ○ Do or facilitate real-life experiments ○ Provide (real-time) data sets • Match 'problems owners' to potential 'problem solvers' by connecting and mobilizing an innovation network of local stakeholders.	Kivimaa (2017) types of change experiments generated: • Changed discourse • New technology • Built environment or infrastructure change • Policy and institutional change • New business practices • New market or market change • New consumer/citizen practices Logframe Plaatje: results in term of learning (short term-impact): • Awareness • Knowledge • Attitudes • Skills • Interest • Opinions • Aspirations • Intentions • Motivations	Williams (2020) Societal effects evaluation: • Individual capacity • Usable products • Networks and relationships • Institutional change – policy • Institutional change – organizational • Climate/energy effects Luederitz et al (2017): • Built capacities • Actionable Knowledge • Accountability • Changes in physical structures • Changes in social structures	Luederitz et al (2017): • Socio-ecological integrity • Livelihood sufficiency and opportunity • Intra- and intergenerational equity • Resource maintenance and efficiency • Socio-ecological stewardship and democratic governance • Precaution and adaptation Social change Economic change Technological change Environmental change Civic

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	• Dissemination / diffusion of lessons learned. • Mobilize resources for 'Problem identification' and 'Problem solving'. • Promote / develop / new ways of working Kivimaa (2017): different types (aims) of experiments: • Niche creation • Market creation • Spatial development • Societal problem solving and change Functions of innovation systems (Hekkert et al. 2007): • Knowledge development • Knowledge diffusion through networks • Entrepreneurial activities • Resource Mobilisation • Market formation (develop new technologies) • Guidance of the search • Creation of legitimacy / counteract resistance to change TIPC report 'Transforming experimentation' (Schot, 2019) three processes of	Logframe Plaatje: what we create: • Plans • Events • Documents • Topic areas • Pages • Articles • Templates • Satisfaction • Fun • Community networks Sustainable values by the International Integrated Supporting Council (IIRC): • Financial capital • Manufactured capital (e.g. resources) • Intellectual capital (e.g. knowledge creation) • Human capital (e.g. skills) • Social and relationship capital and • Natural capital	Williams (2020) five characteristics of development pathways [types of sustainable change]: • Socio-technical systems and governance: governance roles and relationships + reduced barriers to transition. • Interlinking regime rules and behaviors: regime rules, behaviors, routines and practices. • Reinforcement at multiple levels: niche-regime, niche-landscape, landscape-regime interactions. • Actors and practice: actor roles, relationships and agency + collective values and norms embodied in practice. • Social and ecological systems: sustainability in multiple dimensions + inter-connected, and independent systems.	

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	transformation and 12 proposed transformative outcomes under these processes: Successful niche building: • Shielding – broadening and deepening • Learning – broadening and deepening • Networking – broadening and deepening • Expectation dynamics – broadening, deepening, opening up Niche expansion and embedding • Upscaling – increasing user adoption • Replication – local and trans-local • Circulation – accumulating and intermediating • Institutionalisation – creating formal and informal rules De-stabilisation and opening-up of regimes • Destabilisation – de-aligning/disrupting subsystems and regimes • Opening up – unlearning and deep learning of regime actors • Empower niche-regime interactions • Changing perceptions of		Steen (2017): Goals of ULLs: • **Innovation**: Developing new products* to find new solutions to existing or new problems. • **Knowledge development for replication**: Producing and exchanging knowledge of the developed products and processes to achieve these products. • **Increasing urban sustainability**: Sustainable development emphasizes the need for supported local solutions.	

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	landscape pressures **[Planko, 2018] Technology development & optimization:** Developing, testing and optimizing the technology and complementary products and services: • Testing new technologies, applications and markets • Knowledge development • Knowledge exchange • Co-creation of products and services • Development of commercially viable products • Feedback loops with user groups **[Planko, 2018] Socio-cultural changes:** Embed the new technology in society; changing values and norms in favor of the new technology: • Creating new facilitating organizations • Establishing collaboration-prone organizational cultures • Changing user behaviour • Changing the education system • Generating a pool of skilled labour **[Planko, 2018] Coordination:** Coordinate and align all individual and			

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	collective system-building efforts, to bundle forces and use resources efficiently • System orchestration • Creating a shared vision • Defining a common goal • Standardization of the new technology • Providing a platform for open innovation • Thinking in system-building roles • Creating transparency of all activities going on in the field **[Planko, 2018] Market creation:** Creating a market for the technology; raising user awareness and demand for the product: • Generate new business models • Creation of temporarily protected niche market • Collaboration with government for enabling legislation • Collaborative marketing to raise user awareness • Collaborative competition against other technology clusters			

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Annex II - Report on monitoring results AIA 2020

Introduction

This report describes the findings of the first reflective monitoring cycle of ATELIER (MC1) conducted by Aranka Dijkstra. The reflective monitoring cycle used is made up of 5 steps that are elaborated on below (a more detailed description can be found in the *WP3.3 Monitoring Plan*). This report describes the methodological approach and the results of each step of this first monitoring cycle.

- **Step 1. Observe:** Throughout the deployment process of the Innovation Ateliers observations will be made through the continuous **In-Action Monitoring** of Innovation Atelier and WP3 meetings.
- **Step 2. Analyse**: In this step cause and effect of the observation will be explored and analysed. Depending on the nature of the observation different analysis methods will be used (e.g., open interviews, stakeholder mapping, etc.). Findings will be published in an **IA Analysis Report** which forms the basis for step 3.
- **Step 3. Reflect**: To reflect on the observation, the results of the analysis will be discussed and reflected on in an **IA Reflection Meeting**. Here all relevant IA and WP3 stakeholders will be invited to.
- **Step 4. Adapt**: When needed or desired, the Innovation Ateliers stakeholders will receive **Recommendations** from the WP3 Leader to adapt their activities.
- **Step 5. Report**: Relevant insights that arise from the RMA-Cycle will be reported as **Lessons Learned** after each monitoring cycle and shared with the stakeholders involved in WP3.

The aim of Reflective Monitoring is to **learn together** about the deployment processes of the Innovation Ateliers in an open and transparent way. Herewith, we can maximise our **impact**, and document and **share** our lessons learned with others. Page Break

Monitoring Cycle AIA 2020

Step 1. Observe

1.1 Observation

[Translation of observation into research question.]

The observation that led to the initiation of this first reflective monitoring cycle was that the Innovation Ateliers in Bilbao and in Amsterdam both had a very different initiation process. The Innovation Atelier in Bilbao seemed to kickstart as part of the ATELIER project. The Innovation Atelier in Amsterdam took some more time to be developed. The question arose why the start of the Innovation Atelier in Amsterdam was so different from that in Bilbao. This resulted in the following research question:

1.2 Research Question

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How is the Amsterdam Innovation Atelier initiated by the Amsterdam Stakeholders? – April 2020.

Step 2. Analyse

[Description of method used and results of analysis.]

To find an answer to the research question described above, two analysis methods were used for this monitoring cycle: An **Actor Analysis** and a **Causal Analysis**. The methods used and the results of both analyses are described below.

2.1 Actor Analysis

The aim of the actor analyses was to explore which partners were supposed to be part of the Amsterdam Innovation Atelier according to the ATELIER project plan. The Actor Analysis was performed in the second half of April 2020.

Approach:

The Actor Analysis was made using solely information from the ATLIER project plan and was guided by illustrating the following criteria and questions:

- First, all the ATELIER partners were sorted by country: Dutch partners, Spanish partners and partners form other countries.
- Second, the partners were highlighted according to the different type of quadruple helix stakeholders: Public Authorities, Industry, Academia and Citizens.
- Third, all the partners involved in WP4 and WP5 were clustered; WP4 in pink and WP5 in purple.
- Fourth, the stakeholders taking part in the Innovation Ateliers were grouped in yellow clusters. **Whether a partner is part of the Innovation Atelier was determined by whether they have a role in task 3.2** (the innovation tracks).
- Fifth, all the partners participating in WP3 where highlighted in blue. Here a detailed distinction was made in which task of WP3 a partner is involved in (this is illustrated in figure 1 with the use of blue dots in the lower right corner of the partner abbreviation).
- Sixth, all the partners involved in WP7 were highlighted using a green dot in the left lower corner of the partner abbreviations.

Results:

The steps described above resulted in the diagram shown in figure 1.

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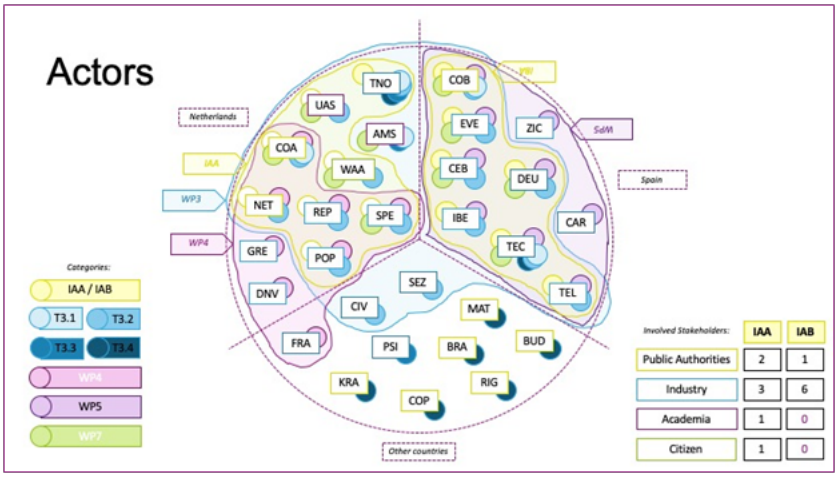

Figure 1. Actor Analysis Results (Credits: Aranka Dijkstra)

Analysis:

The Actor Analysis resulted in different observations that were then clustered around four central questions:

Who is part of the Innovation Ateliers?

- Every organization that is part of the Innovation Atelier Bilbao (IAB) is part of **task 3.2** (the innovation tracks). Based on this categorization of the IAB, partners that should be part of the Innovation Atelier Amsterdam (AIA) are: COA, TNO, WAA, HvA, Republica, Poppies, Spectral and Waternet.
- CIV and SEZ are the only two international partners that are part of task 3.2 but are not involved in either Innovation Ateliers (yet).

Are the Innovation Ateliers based on a quadruple helix collaboration?

- The Innovation Atelier Bilbao (IAB) is made up of stakeholders from Industry and Public Authorities. Stakeholders representing Citizens and Academia are not yet involved.
- The Innovation Atelier Amsterdam (AIA) is made up of stakeholders from Industry and Public Authorities and has one involved Citizen and Academic partner.
- All Industry partners that are involved in the Innovation Ateliers Amsterdam are Small Medium Enterprises (SME's). The only SME partner in Spain is not part of IAB; namely Zabala.
- No external stakeholders are yet involved in either Innovation Ateliers.

What is the relation between a partner's participation in the Innovation Ateliers and in the demonstrators?

- WP4 has 9 partners involved, 7 of these are part of the IAB. WP5 has 8 partners involved, 5 of these are part of the AIA.
- In the IAB almost every partner is involved in all tasks of WP5. In the Netherlands many parties are only involved in a couple of tasks of WP4. Spectral is the only Dutch partner that is involved in almost all tasks of WP4 (only not in T4.8).
- Jordan Guardo is both COB's main contact person and leader of the demonstrator in Bilbao (WP5). In Amsterdam these are two different people: Frans Verspeek as contact from the COA and Rudy Rooth as WP4 leader.

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What is the relation between a partner's participation in the Innovation Ateliers and in WP7?

- WP7 has a mix of partners that participate in both the AIA and IAB.

Other observations:

- The COB has three subcontractors. IBE has two subcontractors.
- The Fellow cities are neither involved in the Innovation Ateliers, the demonstrators or WP7.

Conclusion:

It appears the composition of the Bilbao Innovation Atelier is (at this moment) based on the stakeholders that are involved in **Task 3.2**. **Innovation Tracks.** If following this similar line of thought for the Amsterdam Innovation Atelier, the following partners would be part of it:

ATELIER Task 3.2	Current AIA Core Team
City of Amsterdam (COA)	City of Amsterdam (COA)
TNO (TNO)	TNO (TNO)
Spectral (SPE)	Spectral *(SPE)*
De Waag (WAA)	Schoonschip (not an ATELIER partner)
University of Applied Science Amsterdam (UAS)	
Republica (REP)	
Poppies (POP)	
Waternet (NET)	

2.2 Causal Analysis:

The aim of the causal analysis was to understand what underlying causes influence(d) the initiation of the Amsterdam Innovation Atelier. The Causal Analysis was performed in the second half of April 2020.

Approach:

For the causal analysis, the step-by-step instructions provided in the Reflexive Monitoring in Action Guide were used (pages 56-62). In this guide a causal analysis is describes as follows: "*A causal analysis provides genuine understating of factors that are holding back the project. In the causal analyses, 'why' questions are used to gather reflective answers systematically, thereby allowing the cause of problems or stagnating processes to be determined at increasing deep levels.*"

Where a causal analysis is often done together with multiple stakeholders simultaneously during a co-creation session, for this monitoring cycle five separate online interviews were conducted. This was due to corona and the inability to come together on short notice. Therefor the interviews were conducted individually and online.

For the causal analysis 5 interviews were conducted with ATELIER partners active in and around the Buiksloterham demonstrator. The interviews where about 90-minute online sessions in which the

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findings were written down on digital post-its by the interviewer using the online whiteboard of the Miro application.

During the session the interviewee elaborated on the central question "***The Amsterdam Innovation Atelier is being initiated. From your perspective, What are challenges in its initiation?***". The answers then were pursued by the interviewer asking 'why' multiple times. The interviews were conducted in the first half of May 2020.

The people that were interviewed were:

- Rudy Rooth from the COA and lead of WP4 (Demonstrator Amsterdam)
- Mark van Wees from the UAS and lead of WP8
- Frans Verspeek from the COA and lead of the ATELIER project
- Lennart Zwols (COA) from the COA and lead of the Amsterdam Innovation Atelier
- Jeroen Brouwer from TNO as lead of WP3

Initially more people were identified to interview but because some actors were already interviewed by TNO recently, and we did not want to over-ask the stakeholders, some of the interviews conducted by TNO were analysed instead of conducting new causal analyse interviews with them. These people were:

- Philip Gladek from Spectral and as participant in WP4
- Socrates Schouten from WAA and as lead of WP7
- Begona Molinete from CEPV and as lead of the Bilbao Innovation Atelier

Processing of results:

The interviews resulted in five causal trees which aimed to identify several underlying causes to the central question illustrated by post-its. The results of the individual causal trees were summarized and clustered and then all five causal trees were forged together into one large causal tree with three categories: *Method & Concept, Process & Management* and *People*. The resulting underlying causes that came out of this causal tree were sent to the interviewees for accordance. This resulted in the final results stated in the results section.

Before stating the results, it should be mentioned that these results are a caption of a **specific moment in time**. During the processing process of the interview results, some underlying causes have already been addressed. To provide some context and a sense of time to the causal analysis, a small timeline was composed illustrating some important events:

- 2-3 December 2019 - Central Kick-off meeting ATELIER project in Amsterdam
- 4 February 2020 - Kick-off Meeting with Amsterdam Innovation Atelier in Buiksloterham.
- 12 February 2020 - Meeting in Bilbao with presentation on the Bilbao Innovation Atelier.
- 12 March 2020 – COVID-19 Lockdown in The Netherlands.
- 14 March 2020 - COVID-19 Lockdown in Spain.
- December 2020 - Interviews with stakeholders by Jeroen Brouwer an Adrian Slob (TNO).

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- December 2020 - Conversation with Rudy about taking up Republica's PV challenge for a first Amsterdam Innovation Atelier Workshop.
- 4-13 May 2020 - Causal analysis interviews by Aranka Dijkstra (AMS).
- 10 June 2020 - Kickoff meeting of the core team of the Amsterdam Innovation Atelier.

Results:

The five interviews resulted in the merged causal tree illustrated in figure 2. Overall conclusions based on the results from the causal tree are listed below per category. These were the input for a Reflection Meeting with the interviewees.

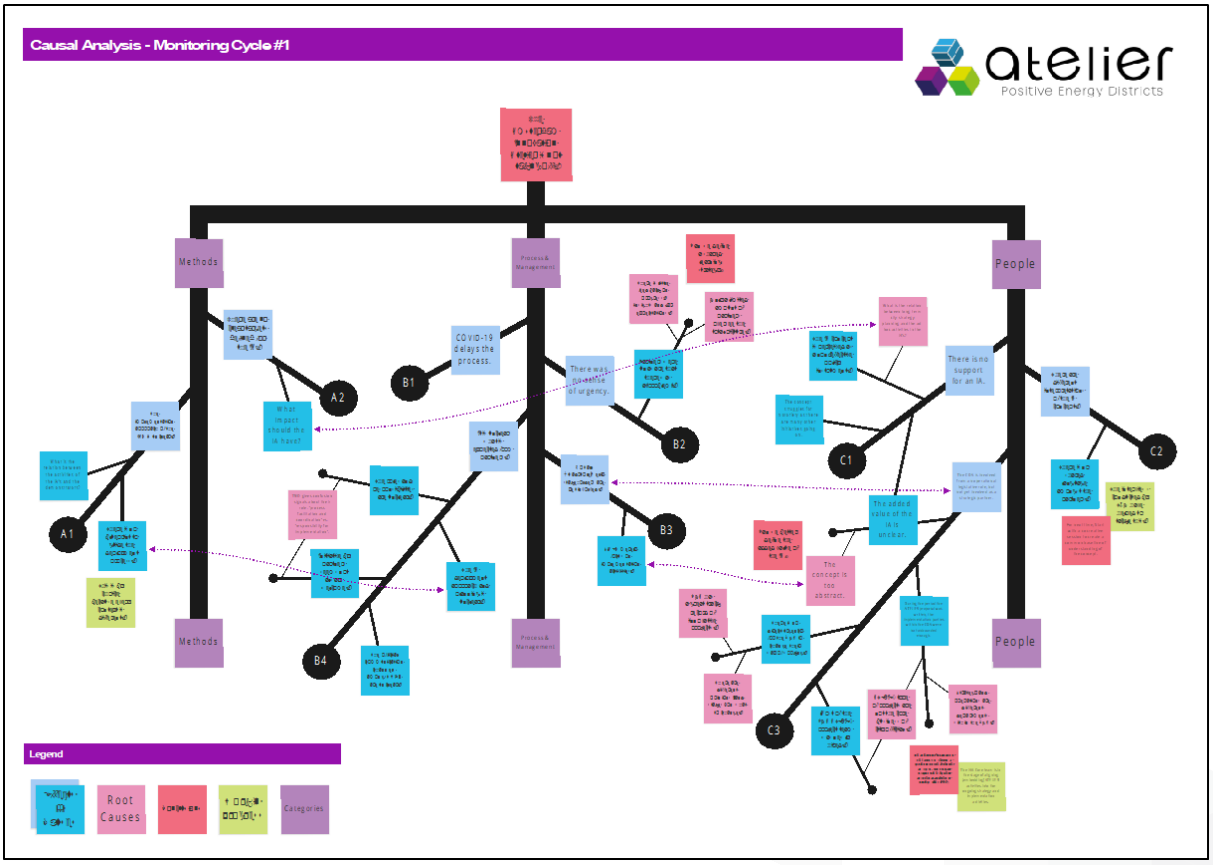

Figure 2. Causal Tree clustered around three categories: Method & Concept, Process & Management and People. (Credits: Aranka Dijkstra)

Method & Concept:

- There is not yet a common understanding of the added value(s) of the IA for the different stakeholder groups.
- There are different interpretations of what the impact of the IA concept is or should be.
- Partners understand that the IA deployment is context specific. However, there is now a need to translate this into a concrete approach for the deployment process of the IA in *Amsterdam*.

People (Stakeholders):

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- It is unclear to city officials how the IA relates to the existing strategic city planning processes of the COA.
- The segmented departments of the COA make it difficult to onboard the right strategic ánd operational people.
- There is not yet a very strong feeling of shared ownership for the Amsterdam IA amongst the ATELIER partners.

Process & Management (Organisation):

- Partners are not aware of what is expected from them, when and how.
- There is uncertainty and confusion about the ownership and the guidance of the Innovation Atelier.
- Partners are not yet aligned about WP3 project planning.
- Partners are very willing to learn but a shared learning strategy is not yet defined.

Step 3. Reflect

[A reflection meeting will be organised to reflect on the analysis results described above.]

To validate the results from the causal analysis, a *Reflection Meeting* was organised with the interviewees from the Amsterdam Innovation on **Tuesday 29 September 2020 from 10:00-11:30h CET**.

3.1 Reflection Meeting

Program:

The program was as follows:

10:00 | Welcome - by Leendert (5 min)

10:05 | Presentation of results of MC1 - presented by Aranka (5 min)

10:15 | Reflection Session around the three Central Questions - hosted by Leendert (5 min)

11:20 | Follow-up & Closing - by Leendert (10 min)

11:30 | The End.

During the meeting we used the online Mentimeter tool to get input on the following topics:

1. **Validate results:** Do you agree on the results? If not, what should be changed or should be discarded?

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2. **Action needed?**: Can you identify which problems have already been dealt with (organically) and/or which need (additional) work?

3. **Identify lessons**: Which lessons have you learned that we should share with future Innovation Ateliers and which should be included in the *Report on Lessons Learned* (due August 2021)? *or*

4. **Follow-up**: Are there any things should be further explored?

This was done by having the observations from the causal analysis scored by the interviewees. First the observations were scored on whether they agreed upon the observations and secondly on whether they believed the observations were already tackled.

Attendees:

The following people have attended the Reflection Meeting:

Interviewees:

- Rudy Rooth (COA)
- Mark van Wees (UAS) – represented by Karen Williams
- Frans Verspeek (COA)
- Lennart Zwols (COA)
- Jeroen Brouwer (TNO)

Task 3.3:

- AdrAIAn Slob (TNO)
- Tom Kober (PSI)
- Laurent (PSI)
- Leendert Verhoef (AMS)
- Aranka Dijkstra (AMS)

Reflection Results:

The presentation used and Mentimeter results can be found in the attached pdfs. The feedback and input from participants during the Reflection Meeting is added to the initial results per category below. Note that there was quite some time in between the interviews (May) and the Reflection Meeting (September) which sometimes strongly influences the reaction of the participants to some observations. Also, there was quite some confusion about how to score some questions. Mostly because of their phrasing. Therefor many lessons about the monitoring approach were learned which are elaborated on in Step 4. Adapt.

Method & Concept:

- **There is not yet a common understanding of the added value(s) of the IA for the different stakeholder groups.**
    - Participants react that “there is a significant change/improvement between may and now.” This is because there have “more discussions about the AIA. First there were limited bilateral discussions. This helped to understand.“

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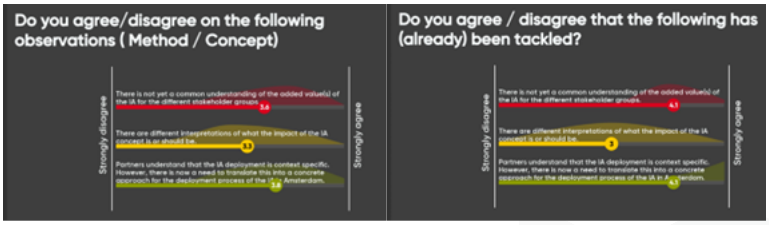
- Another participant also states that they have just started doing: “Simply what has been done is that we have had the innovation ateliers. We had two meeting; brought everyone together. We tackled a challenge. Just started doing.
- Despite this though another participant states that “I do not feel it has changed. We did it but did not communicate anything else; to raise a common understanding more communication is needed.”
- Participants also stated their interest in knowing about the process of the Bilbao Innovation Atelier: “I want to also focus on the IA in Bilbao. How did they give it a common understanding there? How would they reflect upon this? Unfortunate that they are not part of this analysis. How would they answer these reflections.“

- **There are different interpretations of what the impact of the IA concept is or should be.**
  - There is strong agreement that there is a shared understanding of the IA now that the Amsterdam Innovation Atelier has organized a workshop; they now have a concrete case example.
- **Partners understand that the IA deployment is context specific. However, there is now a need to translate this into a concrete approach for the deployment process of the IA in Amsterdam.**
  - Participants react that they should use the general Introduction or Kickoff meeting of the AIA to evaluate whether partners understand the IA concept.



People (Stakeholders):

- **It is unclear to city officials how the IA relates to the existing strategic city planning processes of the COA.**
  - One participant states that this question assumes that everybody knows the structure of the City of Amsterdam.
  - Antoher participant adds: “It is an ongoing discussion discussion how EU projects should be tackled within the COA. You have to know the people to get things done. Informal connections not aligned strategic on strategic levels.”
- **The segmented departments of the COA make it difficult to onboard the right strategic ánd operational people.**
  - There were no comments on this observation.
- **There is not yet a very strong feeling of shared ownership for the Amsterdam IA amongst the ATELIER partners.**

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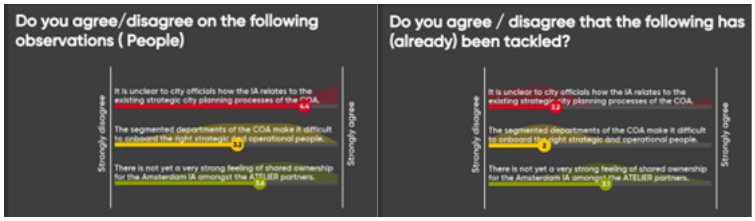
- Participants state that it is **too early** in the process for people to feel ownership because it „is linked to the impact of the AIA“ and that “ownership has to grow; Interesting is to ask yourself how it is integrated in the structure of the city.“
- One participant however wonders “what is the **cause relationship** between ownership and impact? How can you measure impact and is ownership a precondition to reach impact?”
- TNO additionally states that the topic of ownership will be tackled in the upcoming period.



Process & Management (Organisation):

- **Partners are not aware of what is expected from them, when and how.**
  - Lennart: this is because the topics of the AIA’s are different topics.
- **There is uncertainty and confusion about the ownership and the guidance of the Innovation Atelier.**
  - Participants say this is **not true**: “I am not confused about this.”
- **Partners are not yet aligned in regard to WP3 project planning.**
  - Participants react that the process is still unclear, so this is also not possible: “We go with the flow.”
- **Partners are very willing to learn but a shared learning strategy is not yet defined.**
  - Participants do not agree: “the strategy is learning by doing. I do not know if that is satisfying enough.”

Page Break

Step 4. Adapt

[After the reflection meeting, the proposed adaptations will be described here.]

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Based on the discussion from the Reflection Meeting it became clear that it would be very valuable to compare both the deployment processes of the Innovation Ateliers to that of the Bilbao Innovation Atelier. That is why TNO and AMS decided to start a second Monitoring Cycle in Bilbao.

Another question that was posed was whether we could use this type of Reflection Meetings to evaluate the Amsterdam Innovation Atelier and the workshops. This will be taken up in the monitoring approach.

Step 5. Report

[To conclude the monitoring cycle, any lessons learned will be described here. These will form the basis for the formal ATELIER deliverables of task 3.3: a 1) Report on Lessons Learned in August 2021 (M34) and a 2) Report on Impact and Major Lessons Learned in June 2024 (M56).]

Besides lessons learned about the deployment of the Innovation Atelier, this monitoring cycle also taught us many lessons about the monitoring approach itself.

Lessons learned about the monitoring:

- Results should be reflected on fast. Otherwise, the ongoing process will change many things and outdate the results making reflection on them less relevant.
- Statements must be formulated positively; otherwise, they are difficult to use as a statement.
- Be very specific in your questions; observations are not questions in itself.
- It helps to be able to compare when reflecting; use a comparative study or a benchmark.
- Ask the statements to the partners or stakeholders that the questions are about.

Lessons learned about the Innovation Atelier:

- We are at the beginning of the ATELIER project; some questions are too early to ask.
- What an IA exactly is becomes clear by doing it: just start doing.
- The learning strategy of an Innovation Atelier is learning by doing.
- It can be interesting to do a recurring survey amongst the IA community to monitor their understanding and interpretation of the IA.
- EU project development and decision making is different in each city.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 864374.

Annex III - Report on monitoring results BIA 2020

Monitoring Cycle #2

Step 1. Observe

1.1 Observation

[Translation of observation into research question.]

From the first Monitoring Cycle that was about the take-off of the Amsterdam Innovation Atelier, the WP3 partners were very curious about how the Bilbao Innovation Atelier is doing. What are they working on and how are they doing this? This need for insight resulted in the start of a second Monitoring Cycle. This resulted in the following research question:

1.2 Research Question

What is the Bilbao Innovation Atelier working on and how? – October 2020.

Page Break

Step 2. Analyse

[Description of method used and results of analysis.]

2.1 Semi-structured interviews

Approach:

To find an answer to the research question described above, five semi-structured interviews were conducted with the core group and innovation track coordinators of the Bilbao Innovation Atelier. The interviews were guided by five open questions:

- *What is the aim of the Bilbao Innovation Atelier according to you?*
- *What is the value of the Bilbao Innovation Atelier for you and/or your work?*
- *What impact does the Bilbao Innovation Atelier have (so far)? How can it have more/other impact?*
- *Are the right stakeholders involved in the Bilbao Innovation Atelier?*
- *Are there things that went right or wrong, lessons learned, you want to share with other Innovation Ateliers?*

The following people involved in the Bilbao IA were interviewed:

- Begoña Molinete (CEPV) (bmolinete@clusterenergia.com)
- Jordán Guardo (COB) (jguardo@bilbao.eus)
- Jose Ramón Lopez (EVE) (jrlopez@eve.eus)
- Cristina Martin (DEU) (cristina.andonegui@deusto.es)
- Laura Baselga (DBS) (lbaselga@deusto.es)

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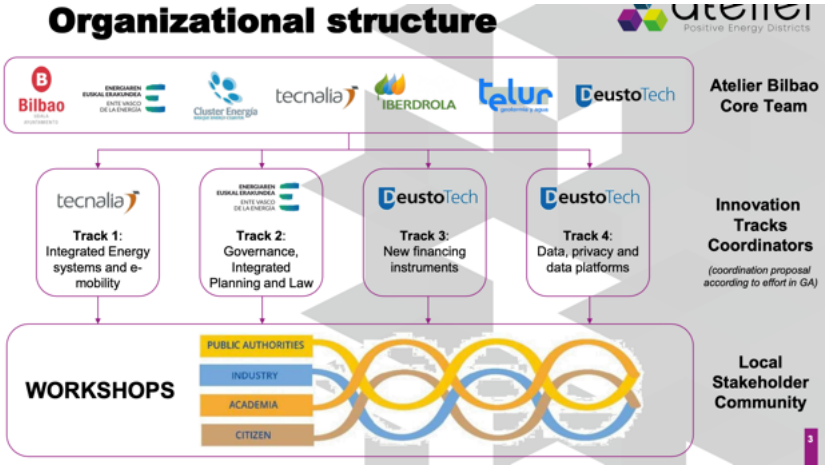

Processing of results:

After all the interviews were conducted, the notes of the interviews and the additional questions asked were grouped by topic and summarised in generic answers. An overview of all the questions:

Q1. What is an Innovation Atelier? (Method & Concept)

1. *What is the aim of the Bilbao Innovation Atelier according to you?*
2. *What is the value/relevance of the Bilbao Innovation Atelier for you and/or your work?*
3. *What is different to when there was not yet a Bilbao Innovation Atelier?*

Q2. How is an Innovation Atelier organised? (Process & Organisation + People/Stakeholders)

4. *How is the Innovation Atelier organised?*
5. *How is the Innovation Atelier connected to the other ATELIER work packages?*
6. *Are the right stakeholders involved in the Bilbao Innovation Atelier?*

Q3. What is the impact of an Innovation Atelier?

7. *What impact does the Bilbao Innovation Atelier have (so far)? How can it have more/other impact?*
8. *How will the Bilbao Innovation Atelier continue after the ATELIER project has ended?*

Reflective Monitoring: What are lessons learned on the topics above during the deployment process of the Innovation Ateliers in Amsterdam and in Bilbao?

9. *Are there things that went right or wrong, lessons learned, you want to share with other Innovation Ateliers?*

Results:

Below a summary of the results of the interviews is given. The green points were added after the Reflection Meeting (see step 3).

IA Method & Concept:

Q1. What is an Innovation Atelier?

1. *What is the aim of the Bilbao Innovation Atelier according to you?*

- The aim of the Bilbao Innovation Atelier is to get citizens and interdisciplinary stakeholders in Bilbao actively engaged in implementing the energy transition in Bilbao.

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Mentimeter question during Reflection Meeting: *Do you agree with the aim stated*? Average rating (scale 1-7): **6,5.** Additions from discussion:

- The Bilbao Innovation helps us to define and shape the 2050 ambition in regard to energy.
- Engagement is not an aim but a means.
- The Bilbao Innovation helps us to look at the future; shape a long-term transition.

2. *What is the value/relevance of the Bilbao Innovation Atelier for you and/or your work?*

- The BIA is a way for local stakeholders to participate in the energy transition in Bilbao.
- The BIA is a way for the City of Bilbao to take leadership in the energy transition and be an example for smaller cities in the region.
- The BIA is a way for the City of Bilbao to be able to work on capacity building i.r.t. the energy transition amongst its employees working at different departments.
- The BIA is a way to help municipalities define their *local* energy planning in coordination with *regional* energy planning.
- One of the BIA's strengths is its versatility; it can be what we need it to be.

Mentimeter question during Reflection Meeting: *Do you agree with the values/relevance*? Average rating (scale 1-7): **6,3.** Additions from discussion: *Are there other important values you would like to add?:*

- The BIA provides us with the opportunity to think outside of the box – away from daily routines.
- The BIA helps us to fine-tune the innovative smart city solutions developed in the project to the context and needs of the citizens and districts.
- The BIA provides us with the opportunity to have high level discussions with experts from different sectors in the same working group supporting the innovation of the Bilbao energy transition; it results in a think tank with a high level of expertise.
- The BIA helps us to get the citizens' perception as soon as possible and try to tailor and adopt solutions.
- The BIA provides branding for the energy transition topic in Bilbao.
- The BIA helps to implement new energy innovations.

3. *What is different to when there was not yet a Bilbao Innovation Atelier?*

- Being a Light House City in an EU project enforces commitment on realising Bilbao's energy transition ambitions.
- The BIA forced the City of Bilbao to structure inter-departmental collaborations amongst departments.
- The BIA made local energy stakeholders to be able to get organised about how to approach and implement the energy transition in Bilbao.
- The BIA provides local stakeholders the opportunity to talk about things outside their daily line of work that are more explorative about how to realise the energy transition in Zorrotzaurre and Bilbao.

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Mentimeter question during Reflection Meeting: *Do you agree with these differences?* Average rating (scale 1-7): **6,7**. Additions from discussion: *Are there any other important differences you would like to add?:*

- The BIA umbrella brand creates a greater visibility, coordination and reach amongst stakeholders. Therewith we have a greater innovation capacity; it encourages involvement.
- It introduces a more holistic way of doing.
- With the City Hall on board, we have higher impact.
- The ATELIER project and BIA gives us clear objectives that define the purpose of the workshops.
- The BIA has created a perfect environment to make sure that citizens are more aware of climate issues and the need for an energy transition.

IA Process & Organisation (Management):

Q2. How is an Innovation Atelier organised?

4. *How is the Innovation Atelier organised?*

- The Bilbao Innovation Atelier can be seen as a set of workshops that are aimed at bringing people together to work on a challenge relating to the energy transition in Bilbao.
- The Bilbao Innovation Atelier is made up of a core group that exists of a chair and representative of each 'innovation track' (see image).
- The track coordinators are in charge of organising the workshops. Every month the BIA workshops are explored and discussed as part of a larger ATELIER meeting (20-25 people) where also other work packages partners are attending.
- Learn by doing: just start and go from there.
- The BIA would have liked to host their workshops and launch event physically. This was now not possible due to Covid-19.
- The Bilbao Innovation Atelier is satisfied with how things are going at the moment.

Mentimeter question during Reflection Meeting: *Do you have any additions to describe the organisational structure?* Additions from discussion:

- The BIA is very well organized because of the structured leadership of the Energy Cluster (CEPV). They foster the connection between the different organisations and the contents are provided by the innovation tracks.

5. *How is the Innovation Atelier connected to the other ATELIER work packages?*

- The Bilbao Innovation Atelier is the 'glue' or 'bridge' that links the energy planning on both a regional and local policy level (WP2) to the implementation of energy planning on a local level (WP5). In the BIA they extract lessons from this interaction for the whole of Bilbao.

Mentimeter question during Reflection Meeting: *Do you agree with the connections with WPs?* Average rating (scale 1-7): **6,7**. Additions from discussion:

- The BIA is interested to collaborate with the Amsterdam Innovation Atelier on more general and international interesting dimensions and topics i.r.t. the different innovation tracks. This could be channelled through WP8. This will be further explored in a workshop during the General Assembly meeting on 2-3 December 2020.

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IA Stakeholders (People):

Q2. How is an Innovation Atelier organised?

6. *Are the right stakeholders involved in the Bilbao Innovation Atelier?*

- The Bilbao Innovation Atelier core group has all stakeholders except citizens: *Academia through DEUSTO Tech, Local Government through the City of Bilbao, Regional Government through EVE and Industry through Iberdrola, Telur and Cluster Energia. Tecnalia acts as bridge between academia and industry.*
- Many other stakeholders are invited to participate in and contribute to the workshops. The BIA core group is closed in deciding and organising the workshops, however, because this streamlines decision making, and these parties have funding for their activities from ATELIER. This could be a lesson learned; for stakeholders to be able to commit and contribute in an open way and for them not to be distracted by daily routines, budget for hours for participation in the IA is needed.
- Citizens will be involved in a later stage when the City of Bilbao has a clearer idea on how they want to involve them.
- The City of Bilbao is an essential partner in the Bilbao Innovation because they have the competence to decide upon measures.

Mentimeter question during Reflection Meeting: *Do you agree with these differences?*
Average rating (scale 1-7): **6,7**. Additions from discussion: noted in green above.

IA Impact:

Q3. What is the impact of an Innovation Atelier?

7. *What impact does the Bilbao Innovation Atelier have (so far)? How can it have more/other impact?*

- The Bilbao Innovation Atelier creates impact by translating insights from energy measures (that reduce CO2 emissions) in Zorrotzaurre, to other parts and neighbourhoods in Bilbao.
- An important challenge is how to translate the generated knowledge from a new development project like Zorrotzaurre, to relevant transformation measures to the existing building stock of Bilbao.
- Engaging citizens in the energy transition in Zorrotzaurre is the biggest challenge of the Bilbao Innovation Atelier.

Mentimeter question during Reflection Meeting: *Do you agree with the imapct?*
Average rating (scale 1-7): **6,6**. Additions from discussion:

- The Bilbao Innovation Atelier creates impact (CO2 reduction) by making it possible to implement innovative energy measures in the demonstrator site Zorrotzaurre.

8. *How will the Bilbao Innovation Atelier continue after the ATELIER project has ended?*

- The Bilbao Innovation Atelier is not yet thinking about how to follow-up after the project; they first need to focus at launching the BIA.

Mentimeter question during Reflection Meeting: *Do you have an idea on how to monitor what lessons are learned?:*

- No, the BIA asks WP3 to help them with monitoring , measuring and assessing the impact.

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Step 3. Reflect

[A reflection meeting will be organised to reflect on the analysis results described above.]

3.1 Reflection Meeting

To validate the results and get additional feedback, a *Reflection Meeting* was organised on **Wednesday 11 November 2020 from 11:30-13:00h CET** with the core group of the Bilbao Innovation Atelier.

Program:

During the online meeting we used Mentimeter to provide the core group members with the opportunity to say how much (scale 1-7) they agree with the findings from the interviews and give additional feedback or input.

Attendees:

- Jordán Guardo (COB)
- Carolina García (TEC)
- Jose Ramón Lopez (EVE)
- Cristina Martin (DEU)
- Laura Baselga (DSB)
- Begoña Molinete (CEPV)
- *.Jeroen Brouwer (TNO)*
- *AdrAIAn Slob (TNO)*
- *Leendert Verhoef (AMS)*
- Aranka Dijkstra (AMS)

Reflection Results:

The presentation used and Mentimeter results can be found in the attached pdfs. Additional input from the participants have been added to the results in section 2.2 in green.
A small evaluation at the end of the meeting makes clear that the Bilbao Innovation Atelier foresees a high value in comparing the different Innovation Ateliers. From this shared comparison lessons can be learned. Another valuable results from the reflection meeting is that it forces them to stop doing and think about what they are actually doing.: "*It is valuable to be force to stop and reflect."* TNO agrees and will follow up on facilitating this.

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Step 4. Adapt

[After the reflection meeting, the proposed adaptations will be described here.]

Based on the interest of the Bilbao Innovation Atelier for a comparison of both Innovation Ateliers, a first *Cross-City Learning Event* will be organised during the General Assembly Meeting on 2-3 December 2020.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 864374.

Step 5. Report

[To conclude the monitoring cycle, any lessons learned will be described here. These will form the basis for the formal ATELIER deliverables of task 3.3: a 1) Report on Lessons Learned in August 2021 (M34) and a 2) Report on Impact and Major Lessons Learned in June 2024 (M56).]

Lessons learned about the Innovation Atelier:

- For stakeholders to be able to commit and contribute to an Innovation Atelier in an open way and without being distracted by daily routines, budget for hours for participation in the IA is needed.
- Appointed leadership in fostering the connection between different stakeholder organisations is a success factor within an Innovation Atelier.
- An Innovation Atelier forces stakeholders to get organised and align their long-term activities.

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Annex IV - Report on monitoring results AIA 2021

1.Introduction

This report describes the outcomes of the second Reflection Meeting of the Amsterdam Innovation Atelier. The aim of the annual Reflection Meeting initiated from task 3.3 is to a) look back and reflect on what the Amsterdam Innovation Atelier (AIA) has learned about developing and operating the AIA, b) to abstract learnings and c) define *lessons learned* about the development and implementation of IA's that can be shared with other cities.

The meeting took place online using Teams and was hosted by Aranka Dijkstra (T3.3). In the first half of the meeting Aranka Dijkstra presented the IA Conceptual Framework for monitoring the Innovation Ateliers developed within task 3.3. During the second part of the meeting, the AIA core team reflected on the 6 key dimensions from the IA Conceptual Framework (v3). The exact program of the meeting was as follows:

- 10:00 | Welcome and small exercise
- 10:15 | Presentation of M&E Framework Innovation Ateliers
- 10:30 | Reflection Part 1: What have we learned?
- 11:10 | Reflection Part 2: What can others learn from us?
- 11:40 | Next steps
- 12:00 | End

Participants were:

Partner	Reflection Meeting #1 (2020)	Reflection Meeting #2 (2021)
AMS Institute (AMS) (host)	Aranka Dijkstra Leendert Verhoef	Aranka Dijkstra Leendert Verhoef
City of Amsterdam (COA)	Rudy Rooth (WP4) Lennart Zwols Frans Verspeek	Frans Verspeek
Paul Scherrer Institute (PSI)	Tom Kober Laurent	-
Amsterdam University of Applied Sciences (AUAS)	Karen Williams (representing Mark van Wees)	-
Spectral (SPE)	-	Julian
Waag (WAA)	-	Julia Jansen (representing Socrates Schouten)

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TNO (TNO)	Jeroen Brouwer AdrAIAn Slob	Jeroen Brouwer AdrAIAn Slob Eva Winters

Page Break

2.Detailed program description

Below the various program elements and their respective outcomes are described. The meeting was guided using the Powerpoint presentation in Annex A. The aim was to have a live meeting, but Carolina García joined online due to covi-19 measures making it a hybrid meeting. Frans Verspeek, part of the Amsterdam Innovation Atelier, was present and participated in the workshop as well by asking deepening questions in one of the breakout groups.

- **Welcome and small exercise:** To set the scene, the meeting started with a short introduction on the monitoring aims and -approach of T3.3. To come into the right mindset the host started by asking the open question '*Think about one of your most valuable lesson learned.'* And then plenary discussed '*How did you learn this?*'

- **Presentation of M&E Framework Innovation Ateliers:** To monitor the development of the Innovation Ateliers, task 3.3 has developed a M&E framework (see figure 1). The framework describes 6 key components that T3.3 monitors. The Reflection part of this meeting was structured using these 6 key components. To create a shared understanding and -language the framework was presented prior to the Reflection part of the meeting. The key components and their corresponding research questions that were presented are:

    - **Sustainability Mission:** What is the sustainability aim of the IA?
    - **Value Proposition:** What products or services is the IA offering to whom?
    - **Strategic Coordination:** How is the IA embedded in the local innovation (eco)system?
    - **Open Innovation Activities:** What does the IA do and what are its outputs and resulting outcomes and impact?
    - **Learning & Knowledge diffusion:** What does the IA learn from its activities and how are outputs diffused?
    - **Organizational Capacity:** How is the IA organized and what resources does it need?

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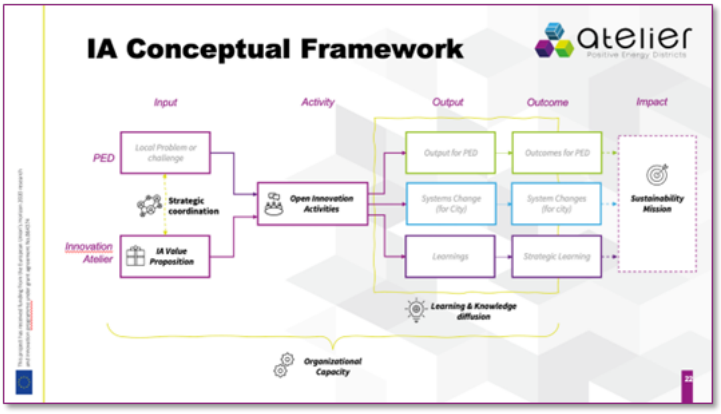

Figure 1. Slide with presented IA conceptual framework (v3) (Credits: Aranka Dijkstra)

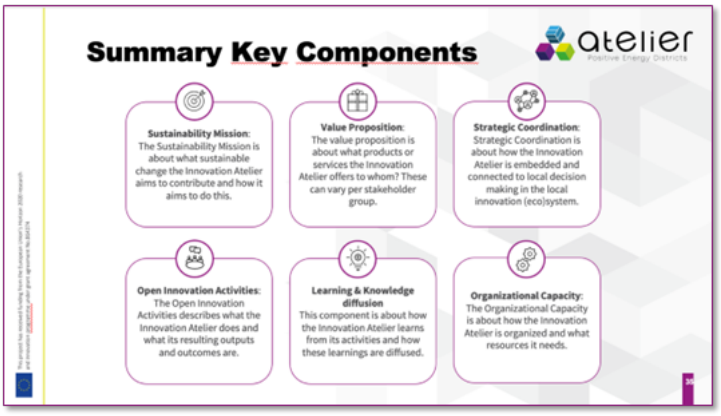

Figure 2. Presented slide with a summary of the key dimensions from the IA conceptual framework (v3) and to be discussed during the workshop (Credits: Aranka Dijkstra)

- **Reflection Part 1: What have we learned?:** To reflect on what the BIA has learned and answer the question: *"What have we learned about the different components of an Innovation Atelier?"* the following steps were followed:
  - Step 1. **Make groups**: Pair up in 2 groups and go to the online Miro board (see figure 3).
  - Step 2. **Round 1**: use 30 minutes in your group to discuss the three components:
    - *Really get to the bottom by keep asking 'Why?'.*
    - *Write your lessons learned on stickies on the Miro board using colored stickies:*
      - *Rose: What is working well related to the component?*
      - *Thorne: What is not working well related to the component?*
      - *Bud: What is something that should be (further) developed related to the component?*
    - *Come back to the plenary session.*
  - Step 3. **Reflection**: What have we learned?
    - *Present the insights from your reflection to the other group.*

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- **Step 4. Follow-up Actions**: Are there specific things (buds) we want or need to follow-up on? How?
    - *We take 20 min together to formulate follow-up actions on the Miro board using the yellow post-its.*

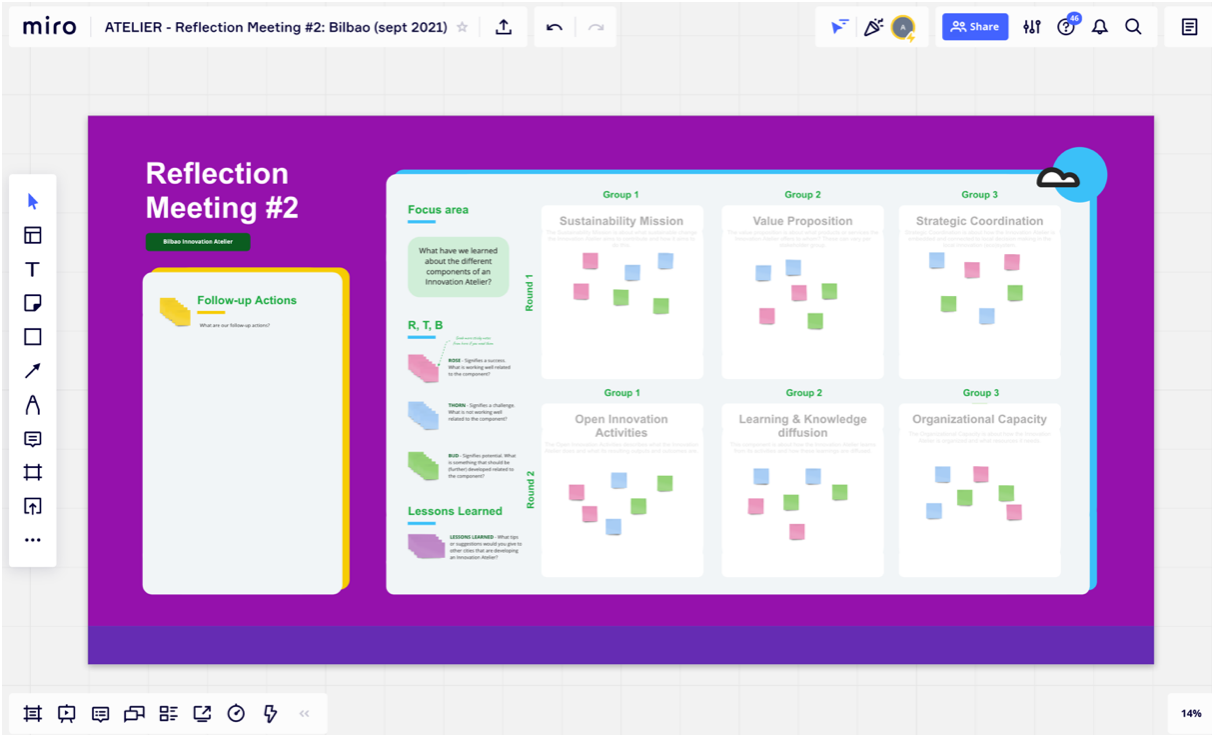

Figure 3. The MIRO board that was used for the reflection. (Credits: Aranka Dijkstra)

- **Reflection Part 2: What can others learn from us?**: In the second part of the workshop, we focused on formulating recommendations for other European cities that want to develop an Innovation Atelier. The central question in this part was therefor: *'What learnings are valuable to share with other cities?'.* Like part 1 of the workshop, participants first wrote stickies in silence which we then discussed plenary:
    - **Step 1.** Use 5 minutes in silence to write your insights and lessons learned for other cities on the Miro board using the purple stickies.
    - **Step 2. Let's reflect:**
    - *Can we summarise and conclude learnings?*
    - *Any ideas on how to share our learnings?*
    - *What would we like to learn from others?*

Page Break

3.Results

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The overall workshop resulted in the Miro board shown in figure 4 (see Annex B. for a larger version). A detailed list of the input on the stickies per dimension is listed below.

Figure 4. Final Miro board of the AIA Reflection Meeting.

Sustainability Mission:

Stickies:

- *Rose: Sustainability goals are mentioned in the proposal, but they are there, in the project outline*
- *Thorn: The IA Amsterdam didn't articulate the mission/ vision yet....*
- *Thorn: it is hard to see how the IA's and all WPs and stakeholders relate to each other in relation to the mission*
- *Thorn: ownership of the IA partners is still lacking; needs to be developed.... We are just doing it because of the proposal/ not that we want it....*
- *Bud: Articulate the vision/mission of the IA*
- *Bud: Strengthen the mutual agreed objectives (now diversity and/or unclarity)*
- *Bud: Diversify between vision / mission of the IA versus the vision / mission of ATELIER*
- *Bud: paying more attention to relation between mission & projects / tasks / activities*
- *Recommendation: Important for FC to start with formulating their ambition, in terms of mission, vision and strategy of the local innovation atelier*

Observations:

- [...]

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Value Proposition:

Stickies:

- *Recommendation: Take the time at the start of the project to develop the value proposition and focus on the stakeholders => use this to engage participants. We learned this from the difficulties arose when engaging local citizens that didn't have project funding.*
- *Recommendation: take enough time to define the value proposition with all participants, revisit this during the project, as knowledge and experiences on what is needed and valuable change*
- *Recommendation: it is difficult to design the strategy upfront and execute exactly that in the following years, as knowledge and experience changes along the way.*
- *Thorn: Thinking about the value of the IA requires a broader thinking than just in the frame of the project. It requires a thinking beyond the project...*
- *Thorn: I have the feeling this is not defined clearly*
- *Thorn: Is the logic (and the added value) of the IA-model clear to involved stakeholder?*
- *Thorn: To whom we offer this value? Is our target group(s) clear - and do they know the existence of IA?*
- *Thorn: what does it offer to parties 'outside' ATELIER?*
- *Thorn: Finding a value postion in the demonstrators and beyond (Amsterdam) for the value of innovation ateliers, chicken and egg problem? Start early with quick wins?*
- *Thorn: hoe does this relate to communication of ATELIER?*
- *Bud: Discuss the value of the IA with teh partners of the IA. It should at least be clear to the core team....*
- *Bud: The value proposition need to be further strenghtened*
- *Bud: how? forms?*
- *Bud: what does it offer?*
- *Bud: to whom?*
- *Bud: and why the IA / us?*
- *Bud: Further disseminate the existence and added value of IA - doubts if sufficiently known*
- *Action: Discuss the value of the IA for the core team members*
- *Action an ambition mapping (active) to formulate mission more clearly and see how other ambition relte to it*
- *Action: Reevaluate together with the core team members the value proposition of the Innovation Atelier Amsterdam*
- *Action: theory of change-like exercise (from goals to dependencies and actions)*
- *Action: Create clarity using wins and tangible value add so we can engage the wider project*

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Observations:

- [...]

Strategic Coordination:

Stickies:

- Thorn: *The IA is not embedded in the decision making process*
- Thorn: *ATELIER is seen by the municipality as one of the many EU-projects; the ambition with ATELIER is unclear*
- Thorn: *projectification of ATELIER I call this*
- Thorn: *Who should initiate / moderate the strategic coordination?*
- Thorn: *The IA is not embedded on the strategic levels of the core team members....*
- Thorn: *Lack of coordination between different IA - look-a-likes*
- Thorn: *How to find a (faster) way to mobilize the entire ecosystem (outside the project) or is that actually impaossible, because of a difference in size ATELIER is very small compared to Amsterdam?*
- Thorn: *the IA is not connected to (democratic) energy transition networks*
- Bud: *hoe komen we uit het project?*
- Bud: *could it be possible to connect it to existing 'Innovatie Ateliers' around PEDs / energy transition?*
- Bud: *Discuss the link of the IA to the strategic level in the core team: how to do this++ better; how to make a real good connection to the ambitions of the city with Buiksloterham?*
- Recommendation: *Secure commitment at sufficient high level within key stakeholders to avoid that representatives in the core-team are supported by their organisation*
- Recommendation: *Develop and strategy, and communication process and steps => assign responsibilities and role with the IA.*
- Recommendation: *Ensure that communication between WP's and the IA*
- Action: *The project needs a sponsor at high level in the municipality; to embedd it strategically*
- Action: *(re)define the stakeholders - connect to existing networks*
- Action: *organise commitment within the municipality*
- Action: *Reevaluate the partners we have now in the IA: do we have the right partners?*
- Action: *Better connect the WP 3 activities (agenda, open innovation activities) with the WP 4 progress discussion*
- Action: *Need a strategy to engage citizens*

Observations:

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- [...]

Open Innovation Activities:

Stickies:

- *Rose: workshops: good topics good audience*
- *Rose: workshops make us more aware of the issues and learnings, and allows us to share these with the other participating city*
- *Bud: IA: Process is not always clear*
- *Bud: workshops sometimes we lack clear goals and follow up/ implementation*
- *Bud: make the IA more efficient and effective: by organizing smaller groups/ experts. If we do so we have to make sure that the insights from these smaller groups are communicated back to the larger community*
- *Thorn: Connection with the PED and the issues is not sufficiently in place new activities to integrate these WP might be needed*
- *Recommendation: explore different types of activities - to make the IA more valuable - to reach different types of potential partners*
- *Action: Increase presence, participation, and expsoure, for instance try-out to establish a physical location for the IA (foot on the ground) and have regularly presence and develop a longer term program of meetups / topics; open up for externmals*
- *Action: think of other activities that can contribute to involve new stakeholders and disseminate results*

Observations:

- [...]

Learning & Knowledge diffusion:

Stickies:

- *Bud: There are lessons learned, but how to capture them and share these*
- *Bud: outcomes of the innovation atelier meetings are not reported back to the participants in the workshop*
- *Bud: The participating citiec have similair challenged: the knowledge developed in the PED and shared in the IA should be shared.*
- *Rose: IA brings out many issues such as on valuable innovation pathways*
- *Rose: The participants together have the capacity to develop new insights needed to address the challenges in the PED*
- *Recommendation: develop a strategy on how and with whom the lessons learned are shared - to become more visible - show the added value - have another opportunity to reflect ont the learnings*

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- *Recommendation: Think of recording the knowledge and lessons learned for other projects and cities*
- *Recommendation: Be sufficiently flexible: make sure that there is room for real impact from the learnings: so learnings can impact the project and lead to change*
- *Action: discuss how the outcomes of the IA land in the project or in f.e. city planning*
- *Action: develop a reporting/ dissemination strategy:*
- *Action: Focused workshops and communications to the wider project team + clear next steps communication*

Observations:

- […]

Organizational Capacity:

Stickies:

- *Bud: core team needs to take responsibility for reporting the outcomes*
- *Thorn: Not enough organizational support now lennart is absent; temporary issue*
- *Thorn: lacking commitment from the city in the IA*
- *Thorn: citizens are not participating in the IA*
- *Recommendation: Select carefully the partners and stakeholders of the local eco-system, consider the committment of these partners with the realisation of the PED project*
- *Recommendation: Think about how to fund this: reserve funding for this*
- *Action: better division of responsibilities betwen te core team parners*
- *Action: Create clarity on responsibilities within IA - who is driving what*
- *Action: map out the IA process so we are all approach it in the same way in both PEDS and Fellow cities*
- *Action: Redesign the roles and organsations structure of the Innovation Ateleir, to reflect the committment of partners in the realization of the PED*

Observations:

- […]

4. Reflection / Conclusion

- …

General LLs from AIA participants:

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It is a pity that there is not so much to learn from the IA Amsterdam (at the moment). More in general the contrast between Bilbao and Amsterdam is interesting. So on a project level we can make some interesting lessons learned from this...

Important to compare the different lessons learned from AMST and BILB and analyse the reasons behind the differences

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Annex V - Report on monitoring results BIA 2021

1.Introduction

This report describes the outcomes of the second Reflection Meeting of the Bilbao Innovation Atelier. The aim of the annual Reflection Meeting initiated from task 3.3 is to a) look back and reflect on what the Bilbao Innovation Atelier (BIA) has learned about developing and operating the BIA, b) to abstract learnings and c) define *lessons learned* about the development and implementation of IA's that can be shared with other cities.

The meeting took place in the Municipal building of the city of Bilbao and was hosted by Aranka Dijkstra (T3.3). In the first half of the meeting Aranka Dijkstra presented the IA Conceptual Framework for monitoring the Innovation Ateliers developed within task 3.3. During the second part of the meeting, the BIA core team reflected on the 6 key dimensions from the IA Conceptual Framework (v3). The exact program of the meeting was as follows:

- 15:30 | Welcome and small exercise
- 15:45 | Presentation of M&E Framework Innovation Ateliers
- 16:00 | Reflection Part 1: What have we learned?
- 16:40 | Reflection Part 2: What can others learn from us?
- 17:10 | Next steps
- 17:30 | End

Participants were:

Partner	Reflection Meeting #1 (2020)	Reflection Meeting #2 (2021)
AMS Institute (AMS) (host)	Aranka Dijkstra Leendert Verhoef	Aranka Dijkstra (AMS)
City of Bilbao (COB)	Jordán Guardo	Jon Gonzalez Mancisidor
(CEPV)	Begoña Molinete	Begoña Molinete
Tecnalia (TEC)	Carolina García	Carolina García
(DBS)	Laura Baselga	Laura Baselga
Deusto (DEU)	Cristina Martin	Cristina Martin
(EVE)	Jose Ramón Lopez	-
City of Amsterdam (COA)	-	Frans Verspeek
TNO (TNO)	Jeroen Brouwer AdrAIAn Slob	-

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Page Break

2.Detailed program description

Below the various program elements and their respective outcomes are described. The meeting was guided using the Powerpoint presentation in Annex A. The aim was to have a live meeting, but Carolina García joined online due to covi-19 measures making it a hybrid meeting. Frans Verspeek, part of the Amsterdam Innovation Atelier, was present and participated in the workshop as well by asking deepening questions in one of the breakout groups.

- **Welcome and small exercise:** To set the scene, the meeting started with a short introduction on the monitoring aims and -approach of T3.3. To come into the right mindset the host started by asking the open question '*Think about one of your most valuable lesson learned and share this with the group.'*.

- **Presentation of M&E Framework Innovation Ateliers:** To monitor the development of the Innovation Ateliers, task 3.3 has developed a M&E framework (see figure 1). The framework describes 6 key components that T3.3 monitors. The Reflection part of this meeting was structured using these 6 key components. To create a shared understanding and -language the framework was presented prior to the Reflection part of the meeting. The key components and their corresponding research questions that were presented are:

    - **Sustainability Mission:** What is the sustainability aim of the IA?
    - **Value Proposition:** What products or services is the IA offering to whom?
    - **Strategic Coordination:** How is the IA embedded in the local innovation (eco)system?
    - **Open Innovation Activities:** What does the IA do and what are its outputs and resulting outcomes and impact?
    - **Learning & Knowledge diffusion:** What does the IA learn from its activities and how are outputs diffused?
    - **Organizational Capacity:** How is the IA organized and what resources does it need?

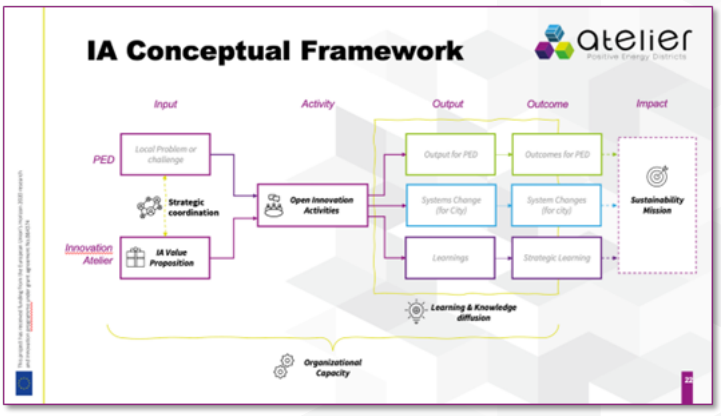

Figure 1. Slide with presented IA conceptual framework (v3) (Credits: Aranka Dijkstra)

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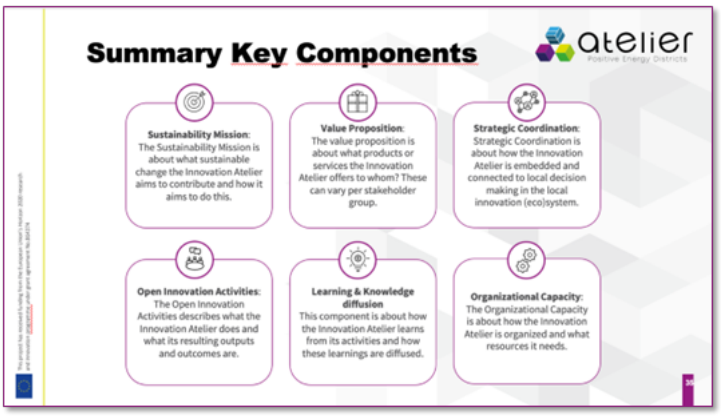

Figure 2. Presented slide with a summary of the key dimensions from the IA conceptual framework (v3) and to be discussed during the workshop (Credits: Aranka Dijkstra)

- **Reflection Part 1: What have we learned?:** To reflect on what the BIA has learned and answer the question: *"What have we learned about the different components of an Innovation Atelier?"* the following steps were followed:
  - Step 1. **Make groups**: Pair up in groups 1, 2 and 3 and go to the online Miro board (see figure 3).
  - Step 2. **Round 1**: use 10 minutes to discuss the first set of components:
    - *Really get to the bottom by keep asking 'Why?'.*
    - *Write your lessons learned on stickies on the Miro board using colored stickies:*
      - *Rose: What is working well related to the component?*
      - *Thorne: What is not working well related to the component?*
      - *Bud: What is something that should be (further) developed related to the component?*
  - Step 3. **Round 2**: use 10 minutes to discuss the second set of components.
  - Step 4. **Reflection**: What have we learned? Use 5 minutes in silence to check out what the other groups wrote.
    - *What do you see?*
    - *Use stickies to add or highlight things.*
  - Step 5. **Follow-up Actions**: Are there specific things (buds) we want or need to follow-up on? How? Let's formulate follow-up actions on the Miro board.

Due to the number of participants present, the participants were divided into two groups instead of three. Each group had about 15 minutes (instead of 10 min) to reflect on three (instead of two) components and identify the '*roses, thorns and buds*'. The results are described in paragraph 2. Due to limited time step 5 was skipped.

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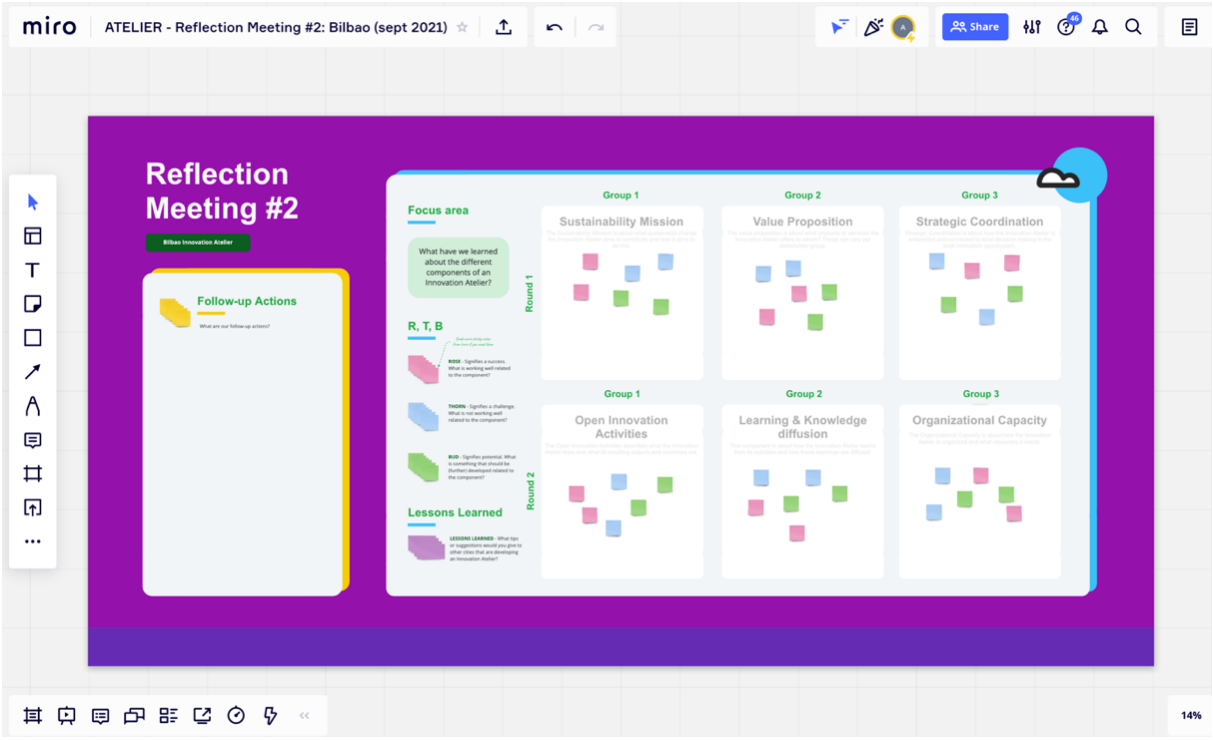

Figure 3. The MIRO board that was used for the reflection. (Credits: Aranka Dijkstra)

- **Reflection Part 2: What can others learn from us?**: In the second part of the workshop, we focused on formulating recommendations for other European cities that want to develop an Innovation Atelier. The central question in this part was therefor: *'What learnings are valuable to share with other cities?'.* Like part 1 of the workshop, participants first wrote stickies in silence which we then discussed plenary:
    - **Step 1.** Use 5 minutes in silence to write your insights and lessons learned for other cities on the Miro board using the purple stickies.
    - **Step 2. Let's reflect:**
    - *Can we summarise and conclude learnings?*
    - *Any ideas on how to share our learnings?*
    - *What would we like to learn from others?*

Page Break

3.Results

The overall workshop resulted in the Miro board shown in figure 4 (see Annex B. for a larger version). A detailed list of the input on the stickies per dimension is listed below.

Figure 4. Final Miro board oft he BIA Reflection Meeting (see Annex B for a larger version).

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Sustainability Mission:

Stickies:

- *Rose: We have an initial proposal from the CEPV. They can facilitate the transition from the project to become a self-sustainable entity.*
- *Bud: The initial proposal needs further development: funding sources and the overall business model.*

Observations:

- The participants misunderstood this key component; they thought it had to do with the sustainability of the Innovation Atelier as an entity after the ATELIER project. In the IA conceptual framework, however, it represents the sustainable impact (change) the IA aims to achieve.
- Developing the long-term strategy of the BIA is not a priority at this point.

Value Proposition:

Stickies:

- *Rose: The BIA is supporting GSHP development by TELUR.*
- *Rose: The BIA is providing citizens the possibility of getting involved in the Energy Transition process of the city.*
- *Thorn: The pandemic situation has limited the quality of the results.*
- *Bud: The citizens need to be even more engaged in BIAs. We have only got to know the actual residents of ZZ (many more are arriving soon).*
- *Bud: We need further orientation to achieve products or services closer to market: mobility, energy communities, interaction tools, batteries, etc.*

Observations:

- Engaging citizens is still a challenge for the Innovation Ateliers.

Strategic Coordination:

Stickies:

- *Rose: The BIA core team counts with important decision-making entities: COB, EVE, CEPV, TECNALIA, UDEUSTO.*
- *Rose: We have a good ecosystem of Basque Smart CIties around.*
- *Bud: To improve the coordination with other entities (private and public) as well as trans-regional communication.*
- *Recommendation: Political cycle and projects execution should be better cordinated.*

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- *Recommendation: To include good and representative selection of entities in the core team of Innovation ATELIERs.*

Observations:

- The BIA seems to have the important regional stakeholders involved.

Open Innovation Activities:

Stickies:

- *Rose: Workshops for City Vision process are being really interesting.*
- *Rose: Two workshops both related to new financing instruments.*
- *Rose: The municipality is quite interested in having more information about financing.*
- *Bud: There are positive outputs but it is too early to evaluate outcomes. The follow-up is key for having real outcomes and impacts!!!*
- *Recommendation: To organise very participative and attractive Innovation ATELIERs.*

Observations:

- The workshops organized by the BIA were well attended and received by municipal persons. This might have been so because their SWOT workshop was combined with their IA Kickoff event giving it a certain interpretation of importance and a wide range amongst the municipality.

Learning & Knowledge diffusion:

Stickies:

- *Rose: Meeting different (traditional) stakeholders creating new knowledge with them.*
- *Rose: The people who participated (around 40 people) in the SWOT diagnosis workshop were really excited and want to be part of the whole process for City Vision.*
- *Thorn: We need to reach non-traditional stakeholders. E.g. citizens.*
- *Bud: The involvement of citizens should be higher and more intense.*
- *Recommendation: To involve Citizens at an early stage in the project.*

Observations:

- There is a need to also involve and learn from citizens.

Organizational Capacity:

Stickies:

- *Thorn: Municipal teams don´t have time for open inovation in their day a day work.*

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- *Bud: There is innovation regarding the SCPG inside the Bilbao municipality, but we still have work to to conect it with the BIA.*
- *Bud: To address net workshop on financial tools we need more experts on-board.*
- *Recommendation: Keep the track and monitor the Innovation ATELIERS (Ex: monthly meetings)*
- *Recommendation: For a better expectations management, municipal human and financial resources should be enough*

Observations:

- Similar to the Amsterdam Innovation Atelier, involving municipal teams is a challenge due to their limited time.
- The BIA indicates they need more expertise regarding financial xxx. Maybe the ATELIER partner Civiesco (Italy) can help out here?

4.Reflection / Conclusion

- Participants (again) highlighted that the reflection session was valuable despite their expectations it would not lead to new information or insights.

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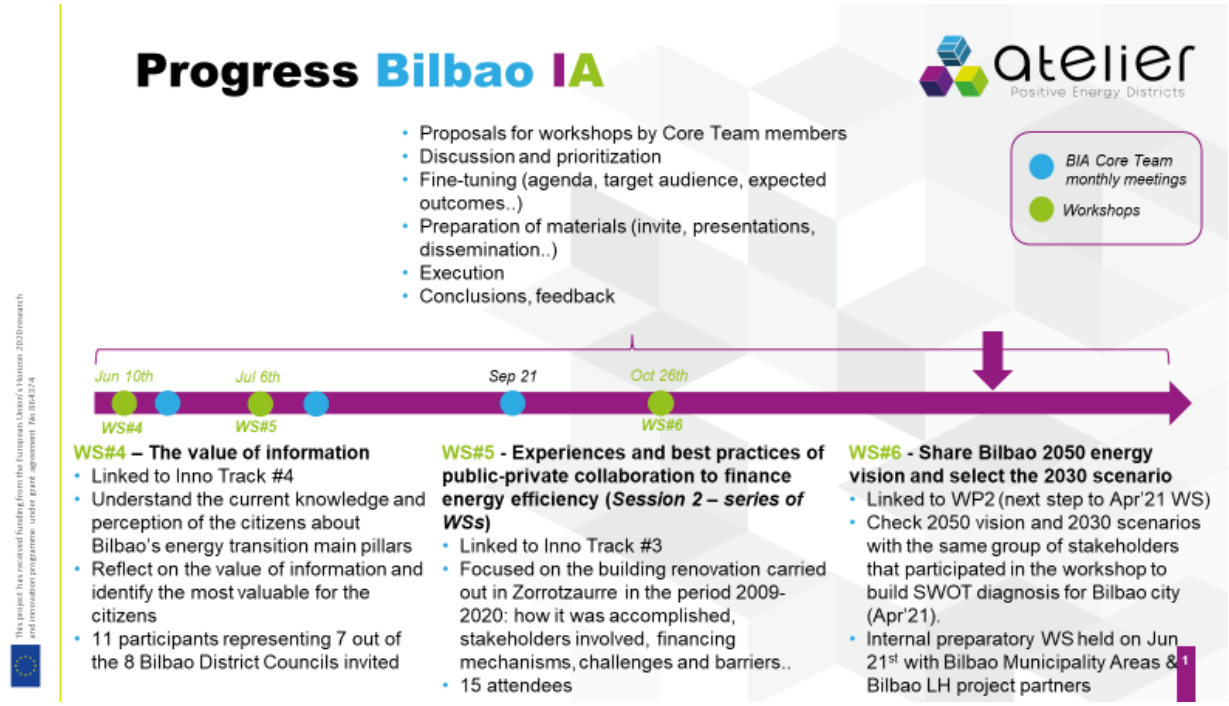
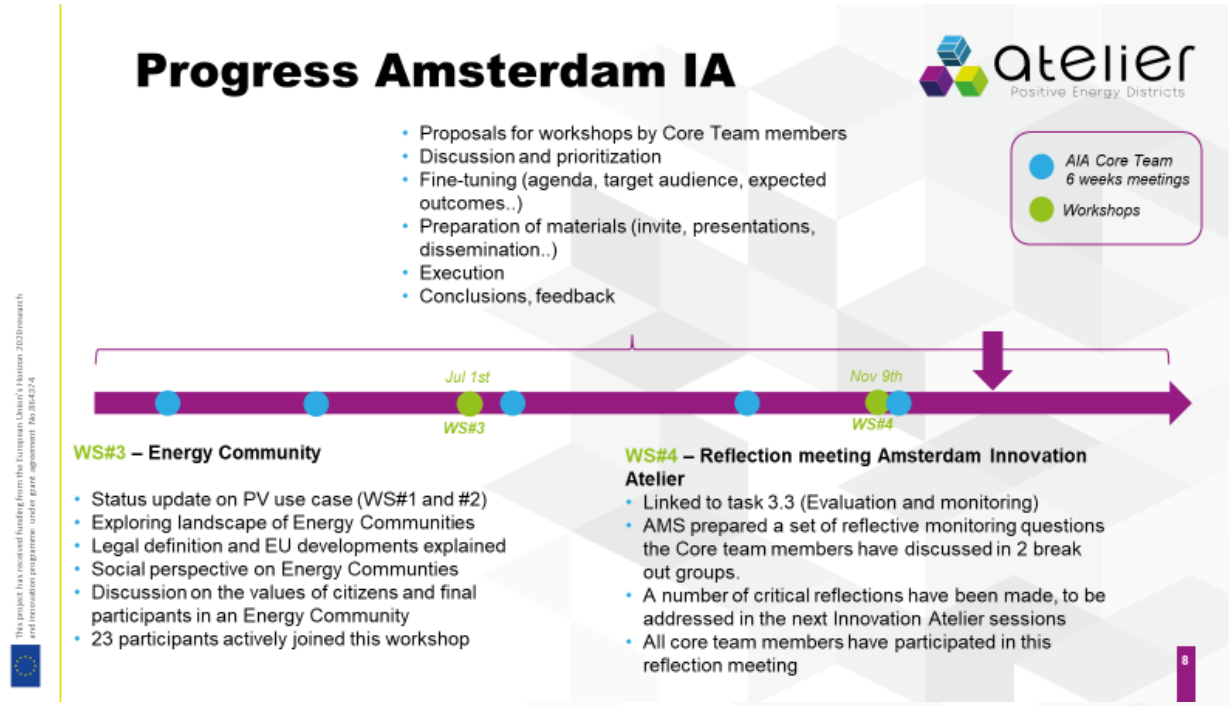
Annex VI - Progress reporting of Lighthouse cities

Progress reporting of Lighthouse cities Amsterdam and Bilbao on the activities and workshops organised, nicely represented in a similar timeline framing. Capturing the topics, details and major outcomes of sessions organised. For illustration purposed only.





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