



# Future Divercities

RE-IMAGINING  
CULTURE-LED  
REGENERATION OF  
URBAN EMPTY SPACE  
IN AN ECOLOGICAL WAY



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# D7.2 Prospective Impact Assessment through Systemic and Eco-Social Future Design in FutureDiverCities project

<b>1 Introduction.....</b>	<b>5</b>
<b>2 Background.....</b>	<b>5</b>
<b>2.1 FDC aims and objectives: A Prospective Impact Assessment Perspective .....</b>	<b>5</b>
<b>2.2 The need for PIAP driven regulations in eco-social regeneration .....</b>	<b>6</b>
<b>2.3 The Theory of Change as an Essential Tool for Creating Change in FDC-Project .....</b>	<b>7</b>
<b>3 PIAP to sustainable eco-social transition.....</b>	<b>9</b>
<b>3.1 The focus on PIAP development and need for innovation management .....</b>	<b>9</b>
<b>3.2 Summary of PIAP development and implementation in the FDC project.....</b>	<b>9</b>
<b>3.3 PIAP in short.....</b>	<b>10</b>
<b>4 The methodology of FDC impact assessment analysis .....</b>	<b>11</b>
<b>4.1 Research design: How precisely and in detail is the work executed .....</b>	<b>11</b>
4.1.1 The methodology, approach and connection to data collection .....	11
<b>4.2 Data management protocol and research ethical questions .....</b>	<b>12</b>
<b>4.3 The participatory workshops for FDC pilots .....</b>	<b>12</b>
4.3.1 The criteria for evaluation .....	12
4.3.2 Description of the Post Phase.....	14
<b>4.4 Key methods to recommendation for policy makers.....</b>	<b>15</b>
4.4.1 Impact statements of FDC artistic interventions.....	15
4.4.2 Survey for key stakeholders .....	15
4.4.3 Affinity diagramming and themes .....	16
<b>5 Results.....</b>	<b>17</b>
<b>5.1 Concrete outcomes.....</b>	<b>17</b>
5.1.1 The Prospective Impact Pro-active Tables .....	17
<b>6 How might we make the change happen? .....</b>	<b>21</b>



<b>6.1 The background for PIAP policy recommendations .....</b>	<b>21</b>
<b>6.2 The FDC concept: Mapping PIAP Continuum Concept for Change-Makers.....</b>	<b>22</b>
6.2.1 Embrace life to re-empathise .....	24
6.2.2 Remembering the future.....	24
6.2.3 Structure creates independence.....	24
6.2.4 Co-creating shared and just for all.....	25
<b>7 Reflection &amp; Conclusion .....</b>	<b>26</b>
<b>7.1 Findings and results about PIAP .....</b>	<b>26</b>
<b>7.2 Discussion of FDC impact evaluation .....</b>	<b>28</b>
<b>7.3 Contribution to current understanding in the Innovation management community.....</b>	<b>28</b>
7.3.1 Practical implications: gains from the findings .....	28
<b>8 Future plans .....</b>	<b>29</b>
<b>References.....</b>	<b>30</b>
<b>Table of Tables.....</b>	<b>32</b>
<b>Table of Figures .....</b>	<b>33</b>
<b>Table of Surveys.....</b>	<b>34</b>

## 1 Introduction

This paper, D7.2 Deliverable for EU admiration, discusses research results and analysis of *Prospective Impact Assessment Process* (PIAP) conducted in *Future DiverCities* project (FDC). FDC is a four-year project (2023–2026) funded by the Creative Europe and implemented by European organisations seeking to re-imagine culture-led regeneration of urban empty spaces. PIAP was implemented in 8 city pilots: Berlin, Zagreb, Liepaja, Kuopio, Marseille, Florence, Timișoara and Athens. Each pilot had a mechanism expected to drive change according to FDC’s Theory of Change (ToC).

This paper synthesises the findings of PIAP conducted in the pilot cases, highlighting stakeholders’ perspectives on the most impactful activities of the FDC project and their alignment with the United Nations Sustainable Development Goals (SDGs). It also presents key conclusions arising from PIAP methodology and introduces a concept for policy recommendations for change-makers.

## 2 Background

### 2.1 FDC aims and objectives: A Prospective Impact Assessment Perspective

FDC aims to influence, how urban spaces can be sustainably revitalised through culture.

The project responds to several challenges and needs:

- to strengthen the ecosystemic capacity of cultural actors and Change-makers in future cities,
- to integrate and assess eco-social considerations within cultural development strategies,
- to assess prospective impact assessment of cultural engagement and activities in urban cultural regeneration,
- to develop evidence-based policy recommendations.

To achieve FDC’s goals, engaging in dialogue and collaborating closely with the scientific community was seen essential. (FDC, 2021.) Thus, a solid collaboration is seen as an engine for change-making. We believe that PIAP, developed by Savonia University of Applied Sciences (Savonia UAS) as a part of FDC project, provides insights, future-oriented frames and evidence that support creative ecosystem members for better decision-making. Finally, the findings and insights of PIAP will be used for developing evidence-based policy recommendations to support decision-making in urban planning.

To meet the FDC's goals, PIAP offers for the process, the necessary solutions by integrating forward-looking design thinking and its methodologies that embrace participatory, informal, and holistic learning. The participatory approach of PIAP bases on

the insights of cultural operators, city inhabitants engaged in regenerative action, and local stakeholders. The development of PIAP stems from the need to perceive the impacts of a planned project as early as possible and to review the direction of the project as it progresses. (Autti & al., 2024).

PIAP and the created impact statements are key tools for informing policy recommendations, providing a structured, forward-looking evaluation of potential project outcomes. We think that, by systematically capturing and analysing anticipated impacts, PIAP supports strategic work toward holistic cultural sustainability, enables objectivity for decision-making aligned with project objectives, facilitates conceptualisation to maintain alignment with mission and vision, and fosters systemic value generation through futures thinking and foresight. PIAP aims to provide an independently executable process and tools for prospective impact assessment that can be implemented by any actor or organisation.

## 2.2 The need for PIAP driven regulations in eco-social regeneration

The New European Bauhaus states (NEB, 2023), that responding to complex challenges requires a transdisciplinary approach. It has been also verified that it is typical for our current challenges that ecological and social needs and meaning cannot be separated (Salonen & Salonen, 2023). To tackle today's wicked systemic problems, development processes require more comprehensive knowledge. Transition requires new thinking and learning out of the old. (Irwin & al., 2022.)

Observations from the first FDC (2016–2021) showed that existing impact assessment method provided insufficient information. At the start of FDC's second phase, we recognized the importance of PIAP to better achieve project objectives and apply it to projects beyond FDC.

In the UIIN paper (Autti & al., 2024), we presented our design-driven approach to impact assessment, arguing that current methods need development to reflect the complexity of operational environments and decision-making. Systemic change is required at all societal levels, and beyond impact chains (IOOI), new tools are needed to examine the nature of change and interactions comprehensively. (Vataja, 2023.) PIAP provides an understanding of the problem while considering people- and life-centred needs across possible future scenarios (cf. Salonen & al., 2023).

Cultural organisations have capacity to create shared value (cf. Joutsenvirta & Salonen, 2020, 155-193), although they are often lacking in eco-social skills of innovation and urban development. The FDC project is based on the concept of soft urbanism, addressing the city as full sensory experience and the emotional impact of the built environment. It views the city as a living organism with adaptable, flexible spaces, inviting a novel approach to research new methods. This approach is supported by the notion that societal systems are so-called soft systems whose boundaries are malleable and less clear (Vataja, 2023, 94-



98). In these kinds of complex situations, more extensive, continuous knowledge (experiential and transformative learning) and a developmental assessment are needed. For all of this, we chose to base our PIAP on *Frame Innovation* by Kees Dorst (2015). (See chapter 3.) At its heart, solving possibilities require the ability to take on new perspectives. The key element of *Frame Innovation* is its concreteness it brings to planning. It can be seen as a generally positive and problem-solving attitude and a co-sense-making process: reflection-in-action (design abstraction) and pursuing parallel lines (framing new possibilities). (Autti & al., 2024.)

Besides the theories of change, data collection, and analysis methods, Vataja (2023) also refers to a more holistic evaluation. We find that PIAP, based on design thinking can be seen as means to deliver a more comprehensive and perceptive understanding of the nature of the problems or phenomenon, of activities that support continuous development, and – at the same time – to take into consideration the different scenarios of the people- and life-centred needs in the possible futures. (cf. Salonen & al., 2023.)

### 2.3 The Theory of Change as an Essential Tool for Creating Change in FDC-Project

Theory of Change (ToC) is a participatory method for mapping how an intervention can achieve desired change in a specific context. Starting with clearly defined goals, the team works backwards to envision causal pathways, uncovering underlying assumptions that may hinder progress. Clearly specified goals enable better understanding of the pathway, assessment of feasibility, and creation of metrics to monitor project outcomes. (UNDGDOCO, year unknown, 4.)

Each pilot has a mechanism expected to drive change according to FDC’s Theory of Change. FDC’s ToCs have been iteratively re-created throughout PIAP phases. As PIAP is highly context-specific and situational, each iteration deepens understanding of the evolving project context, necessitating regular updates to ensure the ToC remains relevant. Table 1 presents the ToCs of FDC in clusters of biodiversity, commoning, and impermanence.

The FDC’s ToCs were initially developed at the start of the FDC project and further refined during the first phase of PIAP, incorporating an end-user level to clarify whom the project is expected to impact. Iterations were conducted prior to the Participatory Phase workshops, which have served as the basis for the FDC prospective impact assessment in this study.



Table 1 The Theory of Change per FDC clusters

FDC cluster	Theory of Change -sentence throughout the FDC: to_____, with_____, by_____ for_____.
Biodiversity	<p>Making it visible and creating awareness about the complexity of living ecosystems and their vulnerability. The biodiversity principle will be present in our curatorial and program activities.</p> <p>WITH Multiple stakeholders, representatives of habitats, neighbours</p> <p>TO Include Biodiversity into nature and heritage, establishing habitats as legal entities to the educational and decision-making process. Include Biodiversity in the educational and program activities</p>
Commoning	<p>Within the Future Divercities as a cluster we tackle the theme of COMMONING BY Creating methods of community building and rethinking ways of living and sharing a space</p> <p>WITH Artists, local communities, individuals</p> <p>TO Let them live their city in a more sustainable way, making it a common space for all living beings where they are making the change.</p>
Impermanence	<p>Within Future Divercities we tackle the theme of impermanence by defining the use and functioning of the space and area that is open to all communities and participative</p> <p>WITH civil society, educational institutions, creative businesses, local artists (Italian, Athenian, Timisoaran), local communities</p> <p>TO generate green urban infrastructure create art as means for improving people's lives Improve urban transformation to make life healthier</p> <p>FOR local artists &amp; inhabitants &amp; all living beings from the proximity (neighbourhood, town).</p>

Source: FDC workshop in Kuopio partners meeting 2024.



## 3 PIAP to sustainable eco-social transition

### 3.1 The focus on PIAP development and need for innovation management

The focus of this study on developing prospective impact assessment is to identify a transdisciplinary methodology to address the need for holistic and systemic eco-social impact assessment for innovation projects.

Recent research and development projects have also highlighted that prospective impact assessment is an essential component of project design and management. Moreover, the European Commission has recognised the social sciences and humanities as indispensable for understanding eco-societal needs, supporting transformations, and enhancing the eco-societal and economic impact of research and innovation. (SSH, 2026.)

### 3.2 Summary of PIAP development and implementation in the FDC project

The Savonia research team has developed an impact assessment framework capable of capturing both soft values and process dimensions of urban regeneration initiatives, emphasising eco-social impact. The FDC pilots have been used as testbeds for developing the impact assessment process. Initially PIAP was tested in Londa and Kuopio through pilot activities led by ANTI and LAMA in collaboration with the local coalitions. Since then, it has been implemented across all city pilots for mid-term evaluations conducted through physical workshops and online sessions.

PIAP mid-way development has been analysed and discussed in the UIIN conference paper to make it more suitable for online implementation, fit a smaller time frame and its results to be more meaningful. PIAP concept has been presented in the UIIN conference 2024. (Autti & al., 2024.)

In our view, reaching the vision requires looking at the plans through their potential impacts. We had a strong impression that, in a project, it must first be envisioned on a concrete level what is to be done (we call it framestorming) before it is possible to assess what kinds of impacts the project will eventually create (e.g. through Futures wheel). This simultaneous outline of impacts and plans is ideally suited to an open perspective related to design thinking.

At the core of Frame innovation is that everything must be kept open and under consideration (Dorst, 2015). Frame innovation creates space for producing enduring, sustainable solutions that benefit as many stakeholders as possible. This approach fosters a reflective way of doing and helps to envision parallel futures, or – in our terms – impact scenarios, from which the most promising can be chosen.

In Dorst's view, linking change to the needs of stakeholders reinforces change (Dorst, 2015). In turn, we saw the concreteness of the planning, contained in Frame Innovation, as

providing a better starting point for the prospective impact assessment: after creating concrete sketches of the project-related actions and outputs, it is easier to envision their impacts compared to abstract project goals. This will produce an understanding of what actions and outputs are worth implementing.

### 3.3 PIAP in short

PIAP methodology unfolds in three iterative phases (Figure 1). In the **Pre Phase**, the core team analyses the current state of the project, identifies paradoxes or conflicts, and designs a participatory workshop by defining its goals and focus. This phase consists mostly of discussion and short brainstorming sessions. The steps are: Understanding the Context, The Current Situation, Key Stakeholders, Theory of Change (ToC), Workshop Topic, Evaluation Criteria, and Facilitative Preparations.



Figure 1 The Prospective Impact Assessment Process (PIAP)

The **Participatory Phase** engages a broader project team, stakeholders, and end-users in creative workshops to explore possible futures, generate impact scenarios, and evaluate prospective impacts through framestorming and futures-oriented dialogue. The steps in this phase are: Somatic Walk, Stakeholder map, Paradoxes, Themes, Framestorming, Storytelling, Futures Wheel, and Heat Map.

In the **Post Phase**, the core team translates workshop results into concrete next steps, aligning actions with the most promising impact pathways. The steps in the Post Phase are Processing of workshop results, Possibilities and Risks, Roadmap cards of ToC, Mapping activities, Future Scenario.



## 4 The methodology of FDC impact assessment analysis

### 4.1 Research design: How precisely and in detail is the work executed

PIAP methodology is developed through an applied science approach. The process has been very organic and hands-on, and our work is based on long experience as design and arts professionals. PIAP process has been implemented in all 8 city pilots. Each pilot has its mechanism which is believed to make change according to FDC's Theory of Change.

The process has been developed on-the-fly according to the pilots' needs and the development needs of PIAP. Our development process has progressed constructively, and PIAP methodology has evolved in response to emerging insights and needs. The data collected is uneven because the way the workshops and surveys were carried out, varied from pilot to pilot. Language translations may also have influenced the results. Where possible, efforts have been made to maintain systematisation.

The final phase of PIAP, in which stakeholders evaluated the impact statements created by the pilots, has been implemented in a uniform manner across the pilots: ToC and impact statements have been harmonised and checked in advance, and uniform assessment criteria and scales were used. The analysis and synthesis of the results obtained, were carried out according to a data management plan. It should be noted that the total number of responses to the surveys carried out by the pilots remained small. Based on the collected data, we can yet draw qualitative conclusions to support the future development phases of PIAP. Based on the quantitative data collected, experimental visualisations were created and used as guidelines.

#### 4.1.1 The methodology, approach and connection to data collection

Data collections were finalised in December 2025 according to the data management plan. Data was collected in on-site and online workshops together with, and in surveys designed by us and conducted by the pilots of the FDC. The data collection has been done simultaneously with the development of PIAP methodology.

In addition, impact statements created in the Participatory Phase have been evaluated using a stakeholder survey. Subsequently and aside the surveys, these statements were analysed with affinity diagramming, which led to a synthesis and conceptualized policy recommendations for change-makers. The most negative and positive evaluations were drawn from the results of the surveys, to create a comparative table along with other analysis. We conducted a structured interview for each pilot at the end of their survey and from these interviews a list of critical actions for the FDC were created to be added to the table just mentioned.

## 4.2 Data management protocol and research ethical questions

A Data Management Plan (DMP) has been prepared in accordance with academic research standards using the DMPTuuli-service. The plan outlines the procedures for data collection, storage, sharing, and long-term preservation related to this deliverable.

The data collected from the workshops is not completely anonymous, because we met the participants during the workshops. The data collected in the Post Phase survey is anonymous and informed consent has been verified.

The research team has worked together with, but aside from, the pilots who were the main collectors of the data. With some parts of the project and some pilots, the data collection was done more in coordination team Savonia. Other pilots worked more independently. This may show in the results.

Machine learning has been used on this paper only for translation and to fix linguistic errors and make the text more fluent. No data has been ideated, transcribed or synthesised using AI.

## 4.3 The participatory workshops for FDC pilots

### 4.3.1 The criteria for evaluation

In autumn 2024, an annual meeting of the FDC project took place in Kuopio. During the meeting, we organized a workshop to develop valuation criteria (Table 2) that could be applied either at the cluster level or across all pilot projects. These criteria were needed for the heat-map evaluation, which was used for prioritizing the impacts identified during the Futures Wheel activity in the Participatory Phase. The workshop resulted in four criteria—two fixed criteria for all pilots, and two that could not be fused into one and had to remain as separate alternatives. These criteria were used for the rest of the participatory workshops, except for one. Each criterion has a name, a short description about its meaning and definitions of maximum positive and negative to facilitate its use with the heat map method during the participatory workshops.



Table 2 Evaluation criteria

	<i>The cultural identity (for all pilots)</i>	<i>The compassionate agency (for all pilots)</i>	<i>The Quality of life (alternative 1/2)</i>	<i>The Well-being of nature (alternative 2/2)</i>
Description	The creation of a shared cultural identity (heritage) and continuity of activities (legacy)	The adoption of self-driven agency and responsibility	The improvement of quality of life of local inhabitants	The improvement of state and status of nature
	Local co-creation events and actions that bonds together and creates a more meaningful life. People continue using the space & organising events beyond the project lifetime.	Activism that strengthens resilience. Improves autonomy and Improves experience-based well-being	Urban transformation that makes life healthier and more ecological, improves Biodiversity and planetary Security.	Urban transformation that makes life more ecological, and improves Biodiversity and planetary Security, and increases the value of nature in people's minds.
Positive maximum	Empowers the sense of pride of one's own neighbourhood, e.g. bonds together.	Activates people to make life meaningful to others	Improves the physical quality of life, e.g. by decreasing pollution and increasing the feeling of safety.	Improves the state and status of nature, e.g. by decreasing pollution, nature is nurtured and valued, and original species become more abundant
Negative maximum	Fragments the community, e.g. disrupts the feeling of belonging.  Nothing happens; the space comes back to being vacant	Drives people to pursue their own interests.	Worsens the physical quality of life, e.g. by increasing pollution and increasing the feeling of threat.	Worsens the state and status of nature, e.g. by increasing pollution, nature is exploited and destroyed, and original species disappear.

Source: Pre-online workshops with FDC pilots 2025.

### 4.3.2 Description of the Post Phase

The Post Phase process commenced with online Post Phase Workshops facilitated by Savonia UAS for each city pilot. Subsequently, each pilot proceeded independently to develop Impact Statements for a stakeholder survey. Following the survey implementation, the process continued with online follow-up discussions between the Savonia FDC team and the pilots. The Post Phase conducted for FDC pilots (Figure 2) differed from the final PIAP Post Phase to accommodate the creation of policy recommendations defined in the FDC-project plan (FDC, 2021).

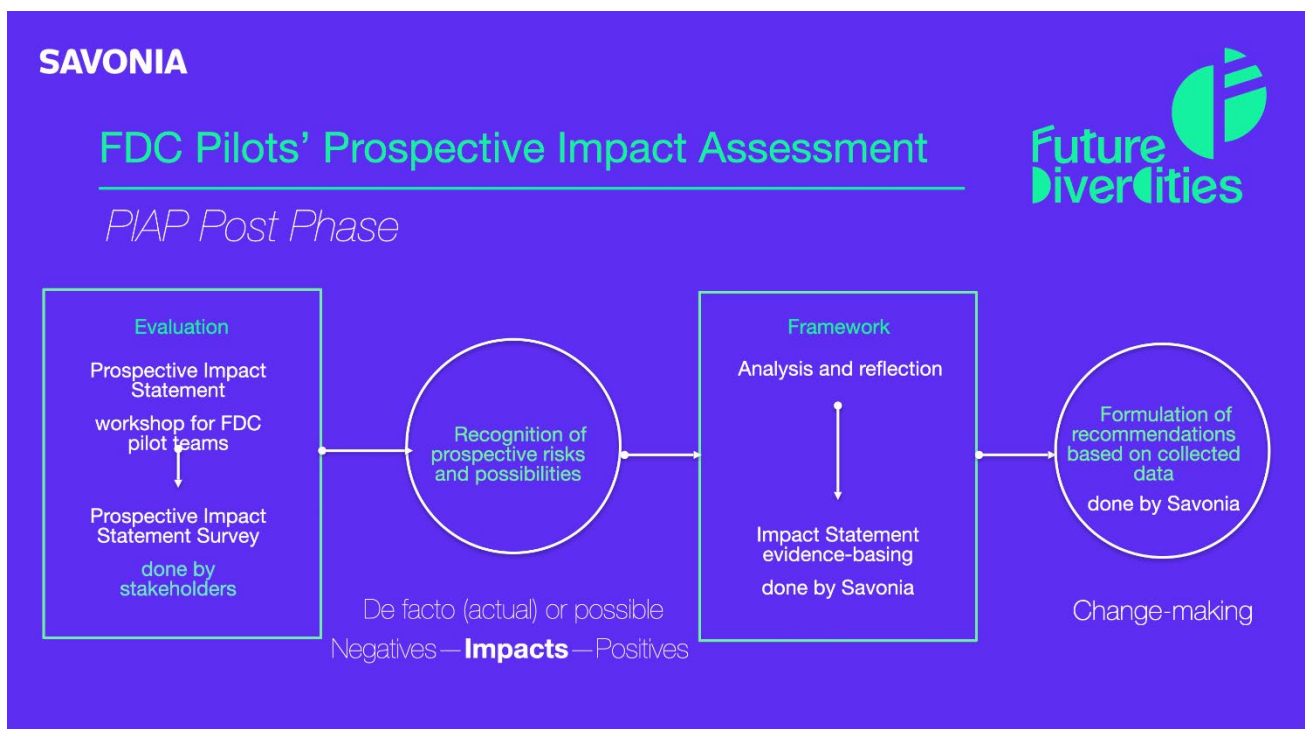


Figure 2 A visualisation of the FDC project prospective evaluation process.

The Post Phase activities produced the following data:

- Impact Statements developed by each pilot for stakeholder evaluation
- The stakeholder impact surveys
- Visualisations of survey results, including probability and significance assessments
- Memos from the online follow-up meetings for each pilot

This approach ensured that stakeholder evaluations focused on the most critical elements of the impact process and that the selected items were systematically validated through established participatory assessment tools.

## 4.4 Key methods to recommendation for policy makers

The main steps for finding the recommendations for policy makers leaned on the Post Phase of PIAP.

### 4.4.1 Impact statements of FDC artistic interventions

After the participatory workshops, the pilots produced impact statements based on the identified potential impacts. The aim was to gather a broader public's view of the relevance of the impacts. Each pilot produced approximately 10 statements, most of which described positive effects of actions and outputs, but some of the statements were also aimed at charting attitudes towards potential negative impacts. Most of the created impact statements describe an impact prospected on an implemented action or output (69 / 80), others describe impacts of potential actions and outputs that had been visioned during the workshops but not implemented (11 / 80).

From the perspective of prospective impact assessment, it is not relevant whether the actions have already been implemented or might be realised in the future, because the assessment focuses on the impact of future actions, and the purpose is to support decision making and project steering. What is essential for the assessment is that each impact statement describes a sufficiently concrete action, which makes the evaluation of the impacts easier. If the content of the action is too abstract, evaluating the impact is likely more challenging.

### 4.4.2 Survey for key stakeholders

We helped pilots create online and – for some – offline surveys (Impact assessment questionnaires, 2025) in which each impact statement was evaluated. The goal of the survey was to collect understanding how the stakeholders saw the possible and implemented actions and outputs when viewed through their prospected impacts. The approach was to collect as many responses from pilots' stakeholders as possible to ensure the reliability of the results, and thus, this emulated the EU Double Materiality Analysis approach. The surveys were conducted anonymously and at the beginning of each survey, the respondents' informed consent were verified. In the surveys, the respondents assessed the impact statements for significance and probability on the LIKERT-scale, ranging from 0 (insignificant / impossible) to 5 (certain / very significant). After the survey, we held structured discussions with each partner pilot about the success of the survey. In practice, it turned out that the representatives of the stakeholders were not particularly interested in answering the survey and the samples were unfortunately small. From the eight pilot sites, only 127 responses were gathered in total. The results from the survey were used in *The Prospective Impact Pro-active Tables* (see 5.1.1).

When the survey data from all pilots is viewed together (Figure 3), it seems that the evaluations of the impact statements follow a pattern: When individual evaluations are averaged per Impact statement on city level, most evaluations show a near equality between Significance and Probability, while Probability assessments tend to be slightly

lower. Based on Daniel Kahneman’s notion, that assessing probability is difficult and tends to be replaced by easier assessments (Kahneman, 2011), the assumption here is, that the responders have used the significance evaluation as a base for the probability evaluation. Which, besides the low sample size, further reduces the testimonial value of the survey.

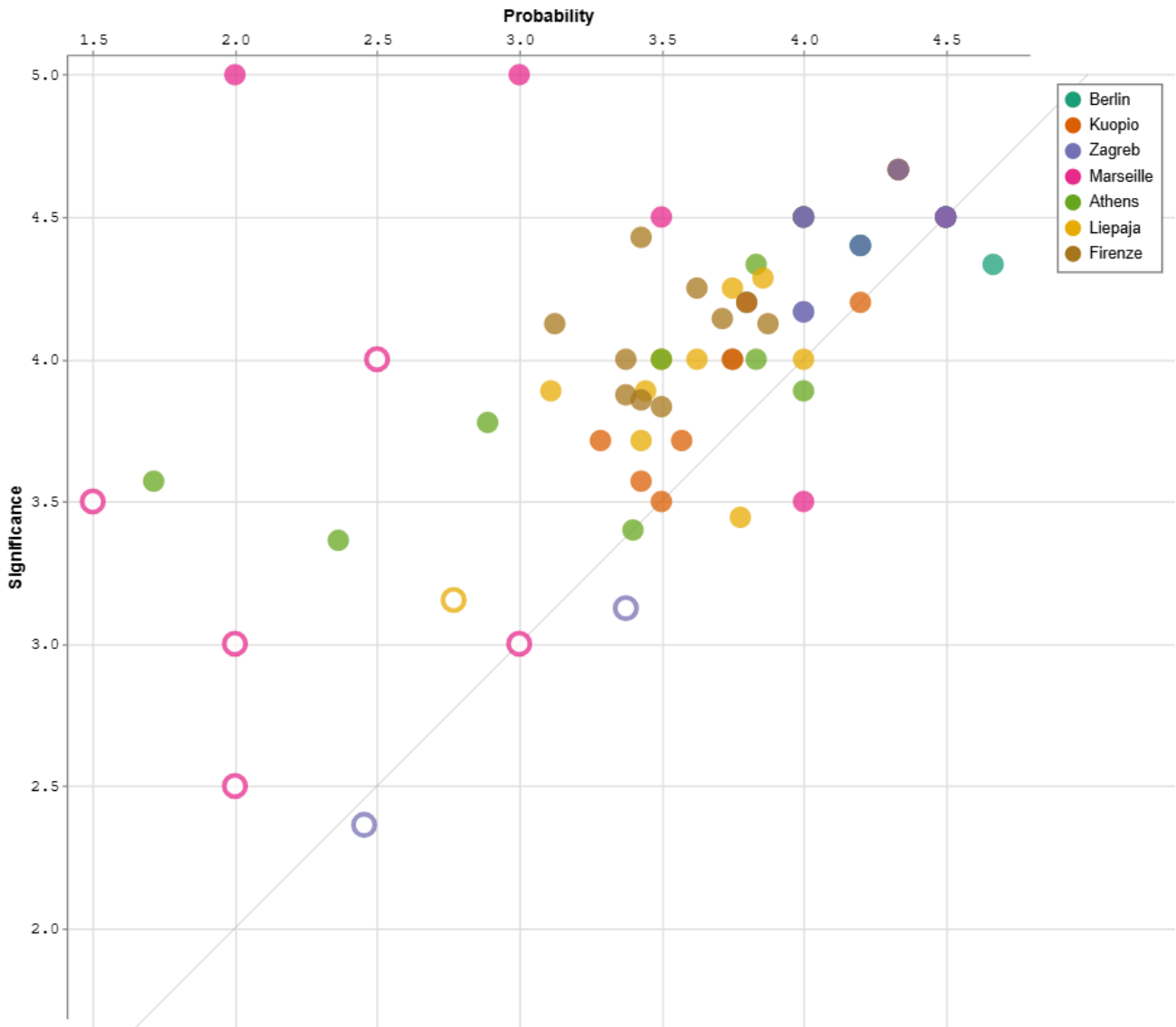


Figure 3 The results from the impact statement survey show a slight tendency between Significance and Probability assessments as the assessments seem to follow a diagonal line.

#### 4.4.3 Affinity diagramming and themes

The impact statements used in the surveys (Impact assessment questionnaires, 2025) were analysed using Affinity Diagramming. This allowed us to see themes repeating across all pilots. Each Savonia team member did their own clustering (3 altogether), which allowed us to recognise different kinds of themes and find affirmation for themes we shared.

## 5 Results

### 5.1 Concrete outcomes

Concrete outcome for this work is an impact assessment framework capturing both soft and process dimensions with an eco-social focus. The framework consists of two parts:

1. FDC 2026 PIAP (tables 3–5 below) synthesises the findings of the prospective impact assessment conducted in the pilot cases, highlighting stakeholders' perspectives on the most impactful activities of the FDC project and their alignment with the SDGs.
2. This first version of PIAP Continuum Concept for change-makers (see more in Chapter 6.2) A transitional framework for decision-making and project management, integrating PIAP and systemic perspectives into project steering. It presents a concept with policy recommendations for change-makers arising from key conclusions from PIAP in FDC project.

#### 5.1.1 The Prospective Impact Pro-active Tables

Tables 3-5 summarise the most important actions and outputs (part implemented and part envisioned) described by impact statements. For this, the impact statement -survey results were used for finding the impact statements with strongest positive and negative overall evaluations for each pilot. In Table 4, Marseille has two negative impacts because these had the same overall score.

The findings were laid in a table where the statements were considered in regards with what risks and possibilities each statement brought, what values they helped to deliver, which SDGs they were linked to, and what cluster themes they represented. In addition, the *N/P* column indicates whether an impact statement describes a positive or a negative impact. The SDGs help enrich the identification of risks and opportunities derived from the impact statements, and these both in turn support the financial planning of a project. Using an approach inspired by double materiality analysis, contributes to emulating with EU practices, which may contribute to funding. How the pilot teams choose to build on these insights is up to them.



Table 3 Prospective Impact Pro-active Table with the strongest positive and negative impact statements for Cluster Biodiversity

Pilot	Impact Statement	N/P	Risks (rebound)	Possibilities	Connected SDGs
KONTEJNER / Zagreb	Due to complex ownership relations, increased interest in exploring the space encounters resistance from responsible institutions/bodies, making it difficult to act freely within the wider spatial context.	Neg.	Complex ownership relationships challenge and slow down operations and decision-making.	Cooperation with the community and educational organisations promotes future work and engages young people to the future work.	Goal 4: Quality education Promote target: 4.7: global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development (SDG4)
	Involving local artists and the student population in activities of researching and mapping KONTEJNER and the wider Vjesnik complex contributes to interest in this spatial context and KONTEJNER's artistic program (example: the Sensitive Mapping of Vjesnik workshop).	Pos.	Nature tourism and, the increased invasion in nature enhances the wear and tear of nature.	Collaboration with educational organizations brings long-term impact.	Goal 8: Decent work and economic growth Promote targets: 8.3 policies for entrepreneurship, creativity and innovation 8.6 youth education 8.9 beneficial and sustainable tourism (SDG8)
Liepaja	Karosta Nature Service Point – an exhibition in the city centre – is a threat to local nature, causing an excessive influx of tourists and vacationers into the open-air area (prospected action)	Neg.	Risks may not have been considered in the development of operations.	Actions create a more positive reputation for the region.	Goal 16: Peace, justice and strong institutions Target: 16.3 promote the rule of law at the national and international levels and ensure equal access to justice for all (including nature). (SDG16)
	Artist residencies in Karosta, which result in works and performances about the Karosta environment, contribute to the recognition of the neighbourhood. (implemented action)	Pos.	The rights and carrying capacity of nature (non-human actors) are incompatible with human rights / interests, e.g. economic perspectives.	New operating models and cooperation between different actors are created. Emotional experiences created by art evoke empathy and caring and create shared value.	
PAL / Berlin	Through talks, exhibitions, and performances, the project showed why it's important to support legal rights for natural habitats—and inspired citymakers, artists, students, scholars, residents, and the public to think about caring for the environment in the long term.	Pos.	Actions may be perceived as a threat and may give rise to a counterreaction.	Raising issues (discussions, exhibitions, performances) increases awareness and pushes towards action.	Goal 15: Life on land Target: 15.9 integrate ecosystem and biodiversity values into national and local planning (SDG15)

Source: PIAP Post Phase: Best practices based on survey – Synthesis of the evaluation (Impact assessment questionnaires, 2025).



Table 4 Prospective Impact Pro-active Table with the strongest positive and negative impact statements for Cluster Commoning

<i>Pilot</i>	<i>Impact Statement</i>	<i>N/P</i>	<i>Risks (rebound)</i>	<i>Possibilities</i>	<i>Connected SDGs</i>
ANTI / Kuopio	Kuopio Cultural Machine Workshop has been rented as an event space for various cultural actors and individuals. This has demonstrated the need for similar event and cultural spaces in Kuopio.	Pos.			Goal 11: Sustainable cities and communities, targets: 11.3 enhance inclusive and sustainable urbanisation and capacity for participatory 11.4 protect local cultural and naturel heritage 11.7 provide access to safe and inclusive green and public spaces 11.8 support strong regional development planning (SDG11)
LA FRICHE, CHRONIQUES / Marseille	As the garden grows in popularity, conflicts arise between associations, residents, and the school over access and decision-making.	Neg.	Activities, which are targeted to a specific audience exclude others and weaken the sense of community in the area.	Regular and facilitated activities promote the formation of community.	Goal 12: Responsible consumption and production Target: 12.2 promote universal understanding and awareness for sustainable development and lifestyles in harmony with nature. (SDG12)
	Some groups feel excluded from activities, which creates social tensions and weakens the sense of belonging to the neighbourhood.	Neg.	Too much activity causes disruption, which strains the community.	Culture and art spaces like pilot projects are used and much-needed meeting places.	
	Regular gatherings in the garden have fostered intergenerational exchanges, allowing older residents and children to share stories, knowledge, and caregiving practices.	Pos.	Increased popularity of a location increases the risk of conflicts between interest groups.	Regular meetings support intergenerational activities.	

Source: PIAP Post Phase: Best practices based on survey – Synthesis of the evaluation (Impact assessment questionnaires, 2025).



Table 5 Prospective Impact Pro-active Table with the strongest positive and negative impact statements for Cluster Impermanence

Pilot	Impact Statement	N/P	Risks (rebound)	Possibilities	Connected SDGs
PLAI / Timisoara	<p>Without constant management and a clear activity selection mechanism, the space risks becoming cluttered and content incoherent. Uncontrolled use and lack of a maintenance and organization strategy can negatively affect the experience of participants and the community. Over time, this can weaken the educational and cultural value of the initiative, lead to degradation of the space, and reduce the impact and sustainability of the project in the long term.</p> <p>By creating a space well thought out in form and organization, the connection between people, community and nature is facilitated. The space is harmoniously integrated into the landscape and constructed from local and reusable materials, providing community members with a place of reference that supports a sense of belonging. Thus, the collective identity and cultural and affective ties within the community are strengthened, with a lasting impact over time.</p>	Neg.		<p>Low-threshold events (e.g., flea markets) increase broader interest in activities.</p> <p>Sufficient structures generate independence.</p> <p>Activities guide towards eco-socially sustainable construction.</p> <p>A concrete cultural space promotes the accessibility of informal learning and education.</p> <p>Joint activities foster active participation among participants.</p>	<p>Goal 10: Reduced inequalities Target: 10.2 promote universal social, economic and political inclusion for all. (SDG10)</p> <p>Goal 16: Peace, justice and strong institutions Target: 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels. (SDG16)</p> <p>Goal 17: Partnerships for the goals, targets: 17.g enhance the global partnerships for sustainable development complemented by multi-stakeholder partnerships that mobilise and share knowledge, expertise 17.h encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships. (SGD17)</p>
PLEX / Athens	By opening a PLEX Café with places to rest, gather and work, we attract diverse audiences, engage them in the project and create a new meeting point in the neighbourhood. (prospected action)	Pos.	Poor operational management reduces the quality of content, the amount of activity, and people's engagement with the activity.	<p>Activities cause disturbances in the area.</p> <p>Possible negative impacts of the activity may not be recognised.</p> <p>Shared experiences create a sense of inclusion and commitment to the community and common goals.</p>	
LAMA / Florence	A dimora has reinforced the sense of belonging between participants and community members through shared experiences, rituals or collaborative events, deepening personal and collective ties.	Pos.		<p>Joint activities raise appreciation for different actors and for nature.</p>	

Source: PIAP Post Phase: Best practices based on survey – Synthesis of the evaluation (Impact assessment questionnaires, 2025).



## 6 How might we make the change happen?

### 6.1 The background for PIAP policy recommendations

Building eco-social capacity and change-making agency requires a pedagogical foundation grounded in explicit theoretical frameworks. PIAP Pedagogical Framework for Change-makers (Figure 4 and Table 6.) is built on an integrated approach that intertwines Planetary Social Pedagogy (Salonen & al., 2023) and Transition Design (Irwin & al., 2022). This pedagogical orientation emerged during the development of PIAP and the UIIN article (Autti & al., 2024) and was subsequently articulated as a conceptual foundation for PIAP's policy recommendations (tables 7–10). This integrated framework was introduced to FDC partners in autumn 2025 and has since served as the basis for operational models and policy recommendations within the project.

The development of PIAP draws on multiple theoretical perspectives related to design thinking, grounded in a holistic understanding of human cognition and decision-making. Central to this approach is the recognition of perception, experiential knowledge, and embodiment as integral to thinking and action. In line with research on embodied cognition, which emphasises that cognition is not confined to the brain alone (Kahneman, 2011), PIAP acknowledges the role of emotions and bodily experience in sense-making and engagement with the surrounding world. This perspective aligns with epistemic learning as described by Salonen & al. (2023), where experiential processes enable the emergence of affective, intuitive, imaginative, and embodied forms of knowledge.

Drawing on Dorst's (2015) *Frame Innovation* and – deriving from it – PIAP also, could drive the ability to see, think and do differently. We find that creative and radical design thinking is experiential learning by nature. In this kind of learning, an open and curious attitude as well as divergence, convergence and chaos vary in a dynamic process. Transition Design similarly foregrounds changes in mindset and worldview as prerequisites for more holistic design actions and futures-oriented thinking (Irwin & al., 2022). This epistemic openness is likewise embedded in Frame Innovation and transformation-oriented pedagogical approaches.

Furthermore, Salonen & al. (2023) advance similar arguments in their Planetary Social Pedagogy Framework, emphasising that sustainable transformation requires a deep, holistic, and systemic understanding, alongside a fundamental shift in human thinking. Such transformation entails learning to “see differently” through experiential and embodied forms of knowledge. (Cf. Joutsenvirta & Salonen, 2020, 186-193.) FDC Concepts for Change-Making stems with Laininen's (2018) view of transformative learning process through which the core values of eco-social education could be seen: systemic worldview, responsibility, sufficiency, interpersonality, connectedness to nature, and future orientation.

The FDC policy recommendations are divided into four approaches (table 4):

- World Relationship – Posture and Mindset
- Co-creative Skills – New Ways of Working
- Agency – Theories of Change
- Future Orientation – Visions for Transformation

The table 4 summarises our withdrawals from the background study for eco-societal pedagogies and lists key mechanisms and features for change-making.

(Irwin & al. 2022, Salonen & al. 2023.)

Table 6 Pedagogical framework for PIAP Continuum Concept.

<i>Pedagogic approach</i>	<i>Transition design approach</i>	<i>Key features for change-making</i>	<i>PIAP Continuum Concept (figure 4)</i>
World Relationship	Posture and Mindset	Recognition of perception Experiential knowledge & embodiment Openness and respect for whole Deep connection to nature	Embrace life to re-empathise
Co-creative Skills	New Ways of Working	Collective orientation Systems thinking Participatory processes	Co-creating shared and just for all
Agency	Theories of Change	Planetary orientation Transdisciplinary approach Transformational activism Capacity for renewal	Structure creates independence
Future Orientation	Visions of Transformation	Anticipating orientation Imaginative, openness & affective Co-created visions Shared pathways for change	Remembering the future

Source: Adapted from Transition Design (Irwin & al. 2022) & Planetary Social Pedagogy (Salonen & al. 2023).

## 6.2 The FDC concept: Mapping PIAP Continuum Concept for Change-Makers

Recommendations for policy- and Change-makers presented in this paper arise entirely from PIAP process conducted in the FDC pilots and from the impact statements generated in that process (figures 1 and 2).

After affinity diagramming and theming each FDC impact statement first individually, we collaboratively developed arising themes by constructing interpretative reasoning chains. The aim was to identify what was essential, how themes related to one another, and which elements exerted mutual influence. At this stage, key terms and guiding questions were

articulated alongside the themes. These core findings were then integrated into the Pedagogical Framework for PIAP Continuum Concept (Table 4) and positioned within its four sectors according to their most relevancy compared to the approaches.

The work continued with a deeper analysis of the synthesised findings, which led to the formulation of four PIAP Continuum concepts as policy recommendation themes:

- Embrace life to re-empathise
- Co-creating shared and just for all
- Structure creates independence
- Remembering the future

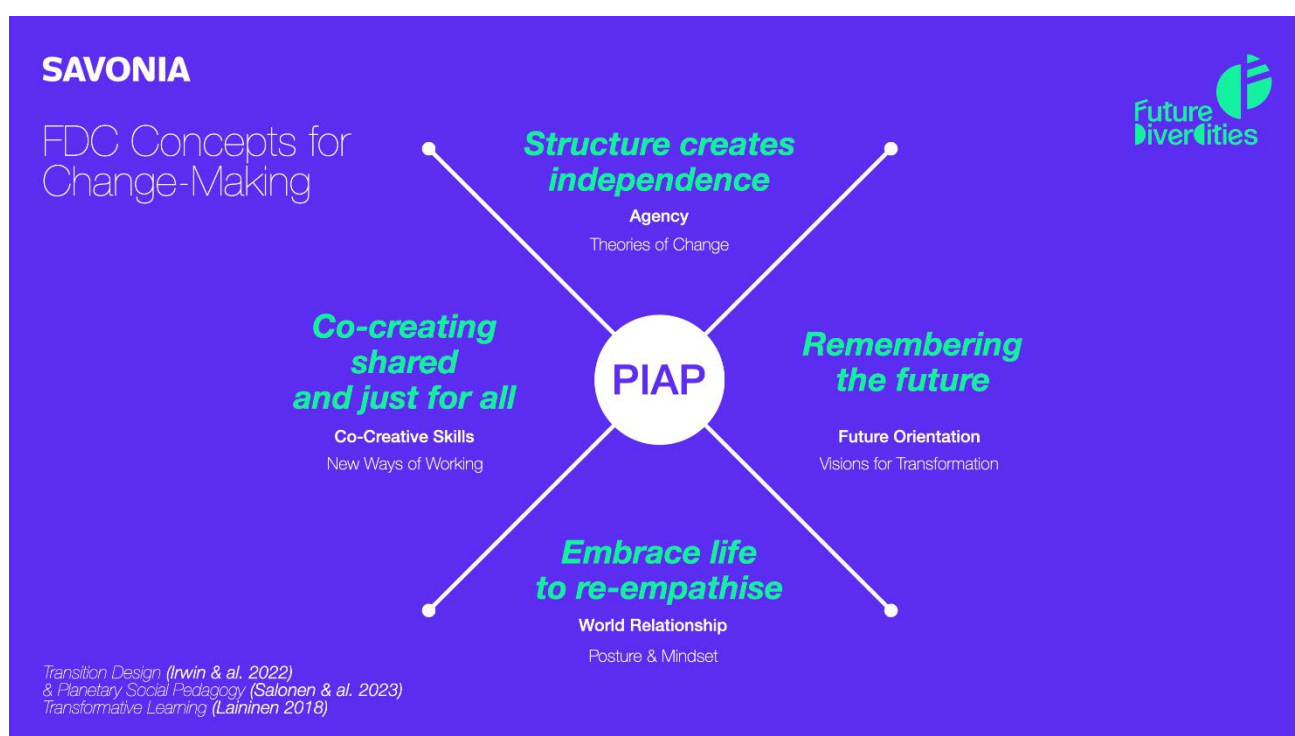


Figure 4 PIAP Pedagogical Framework for Change-Makers. Adapted from Transition Design Framework (Irwin & al. 2022) and A Theory of Planetary Social Pedagogy (Salonen & al. 2023).

As an interesting finding, we observed that our affinity diagramming results for the first version of the FDC policy recommendations aligns with Laininen’s (2018) framework of internalised competences for eco-societal lifelong learning, and this theory was compared with our PIAP Continuum Concept.

Tables 7–10 present a summary of the key ideas for each concept and collect the findings for the concepting process. Descriptions outline the target values each concept will deliver. Key features list factors that should be considered when designing policies and guiding actions. Guiding questions are designed to orient development and decision-making processes by encouraging reflection that steers actions toward eco-social and holistic sustainability.

### 6.2.1 Embrace life to re-empathise

This concept fosters shared, embodied experiences and experiential learning, strengthening holistic community empathy, making abstract phenomena tangible, and generating new perspectives to guide reflective action for the planet (Laininen, 2018, 29).

Table 7 PIAP Continuum: Embrace life to re-empathise

Concept	Description	Key features	Guiding questions
Embrace life to re-empathise	Sharing experientiality as a driver for change “re-scripts” perception of the world	Internalise the systemics of life-sustaining factors	How could a holistic, situational, and empathetic way of relating to the world be cultivated?
	Embracing holistic communal empathy toward one’s own sphere of life	Foster nature empathy and sociality through experiential engagement and care practices between humans and other living beings	How could the legal rights of nature, both living and non-living, be ensured?
	Making abstract phenomena tangible through embodied, co-located experience	Embrace interdisciplinarity and the productive disruption introduced by external actors	How could fostering experiential capacity of art and the creative sectors be supported and strengthened as a key driver for change?

Source: Conceptualisation. (Cf. Laininen, 2018, 29)

### 6.2.2 Remembering the future

The concept emphasizes envisioning and collectively shaping a hopeful future for both the community and society. It fosters care, inclusion, and the principle of leaving no one behind, making the future tangible in the present and bringing future-oriented belief and hope into current action.

Table 8 PIAP Continuum: Remembering the future

Concept	Description	Key features	Guiding questions
Remembering the future	Bringing us the bright future	Explore authenticity in production of transformative future scenarios to guide decisions	How could the capacity and the opportunities of future generations be enhanced to shape their futures?
	Seeing and feeling the future in the present, e.g. through local heritage	Create a shared narrative ensuring continuity in collaboration with community, art and education	How could resilience and future-making capacity be supported by strengthening traditions and local heritage?
	Fostering care and inclusion, ensuring no one is left behind	Foster future-oriented agency by overcoming constraints and internalising a proactive, forward-looking mindset	How could a sense of belonging to the community and the collective transformative future be fostered for all?

Source: Conceptualisation. (Cf. Laininen, 2018, 29)

### 6.2.3 Structure creates independence

The concept emphasizes fostering autonomy and agency at both individual and community levels. It highlights the role of the artist and creative sector as responsible and empowered actors, and underscores the importance of supporting one’s own agency, socially resilient decision-making, and participatory engagement.

Table 9 PIAP Continuum: Structure creates independence

Concept	Description	Key features	Guiding questions
Structure creates independence	<p>Highlighting the artists' role as responsible and empowered actors in testing new ideas and generating meaning</p> <p>Emphasising the support for individual agency and independence of created interventions</p> <p>Promoting socially resilient decision-making and participatory engagement</p> <p>Encouraging systemic value creation beyond financial or reputational considerations</p>	<p>Create structures that enable independence and proactive engagement for both individuals and the community</p> <p>Ensure that actions deliver meaningful benefits to all stakeholders: the community, local authorities, and society</p> <p>Support continuity and regularity of autonomous activity, both socially and financially</p> <p>Internalise responsibility and the exercise of influencing in contributing to societal change</p>	<p>How could community and art pedagogy be employed to support and facilitate sustainable activity within both communities and organizations?</p> <p>How could traditional organisations be supported to adopt freer-form activism and pursue ambitious impact in fostering a sustainable society?</p> <p>How could different actors effectively support intra-community organization and development?</p>

Source: Conceptualisation. (Cf. Laininen, 2018, 29)

#### 6.2.4 Co-creating shared and just for all

This concept advances participatory art as an essential collective process for creating shared meanings. It positions art and creative industry as a social business grounded in inclusive, multi-perspective, and interdependent models of action that foster new connections and shared and just for all. Participatory art is a shared process, and empathy for all living and non-living is born as a bodily experience. This process is done together, facilitated by the artist, and the action itself produces shared meanings and values. (Cf. Dewey, 1934, 12, 39, 71-73, 126-127)

Table 10 PIAP Continuum: Co-creating shared and just for all

Concept	Description	Key features	Guiding questions
Co-creating shared and just for all	<p>Positioning participatory art as an essential collective process</p> <p>Emphasizing interdependent models of action towards responsibility and shared value creation</p> <p>Framing art and creative industry as a social business opportunity</p>	<p>Internalise understanding of what is needed more—and less—for a common good</p> <p>Foster dialogue and multi-perspective collaboration, integrating responsible communication and storytelling, that also strengthen social and emotional skills</p> <p>Develop and experiment new concepts and models through creative methods</p>	<p>How could moderate and eco-socially sustainable consumption be ensured across all activities?</p> <p>How could social business models be strengthened as drivers for resilience and prosperity?</p> <p>How could the capacity to integrate emotions and shared experiences into sustainable decision-making be developed?</p>

Source: Conceptualisation. (Cf. Laininen, 2018, 29)

## 7 Reflection & Conclusion

### 7.1 Findings and results about PIAP

We developed an impact assessment framework capable of capturing both soft and process dimensions emphasising eco-social impact. Our development work presents a process that brings iterative, prospective impact assessment to innovation management. Our process is based on design thinking and frame innovation (Dorst, 2015), and its approach is holistic and systemic, co-creative and participatory. Within our process, there are new tools and approaches.

Compared to previous implementations and perhaps other methods, PIAP brings many benefits to innovation management: an inclusive approach, a visual presentation of the process and results (Figure 5) and the visualization and processing of complex situations through visual, creative and analytical thinking.

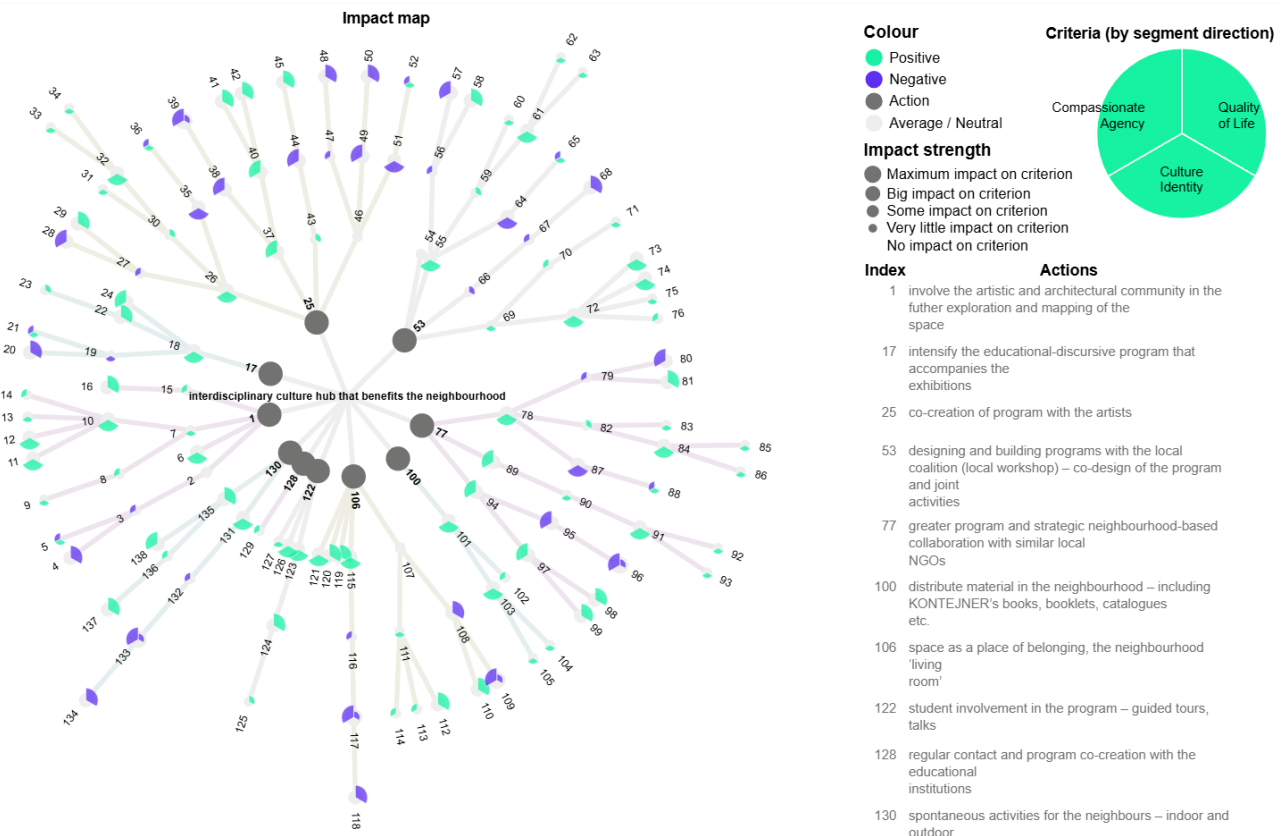


Figure 5 An example of impact visualisation

The post-survey discussions with Pilots raised positive notions, where PIAP was experienced as an “evolutive” and “adaptive” tool in the development process. On the other hand, it needed some learning of new things and understanding it to implement it well. The challenges were adopting different methods of the process, involving stakeholders and adapting timewise the process to fit each pilot.

Our original idea was that PIAP should have been implemented several times in each pilot during the project. Then the identified impacts could have guided practical choices and actions. Post Phase discussions with partners showed that it would have been a good idea to have the results of the surveys earlier (e.g. ANTI). In practice, each pilot was full of work, and the process could only be carried out once per pilot. On the other hand, based on Post Phase feedback discussions, PIAP helped partners identify impacts and challenged them to consider the effects of concepts from a variety of perspectives.

THE PROSPECTIVE IMPACT  
ASSESSMENT PROCESS (PIAP)  
ROADMAP CARD

Your Project:



Theme / ToC's Criteria(s):

Evaluation Criteria(s) Description:

Impact Statement:	Description of the impact / risk or possibility:	The shift: goals & actions	Measurements:	SDG Indicators:
Risks	What are the risks associated with the planned actions and their impacts? Why? Consider rebound-effect.	What steps should be taken to manage the risks? What is the target value?	How will the target value be measured?	What Sustainable Development Goals indicate the achievement of set goals? How and why?
Possibilities	What opportunities can be seen in relation to the planned actions and their impacts? Why?	What steps should be taken to turn opportunities into action? What target value is delivered?	How will the target value be measured?	What Sustainable Development Goals indicate the achievement of set goals? How and why?

Figure 6 PIAP Post-phase roadmap card could be used for the processing of results of participatory co-creation workshops in the internal development work of organisations.

Our work to evaluate FDC was solely qualitative, based on co-created impact statements and at the same time focused on the development of PIAP. We have focused on qualitative evidence-basing (Figure 2), which demonstrates PIAP's ability to facilitate change-making from the perspective of planetary pedagogy. To follow-on, it can be thought that the table provides the pilots a starting point to find the meaningful metrics to measure the impacts they are delivering (Figure 5).

This planning of metrics can help projects both in their writing phase and also in proving results at the project's end, by demonstrating more appropriate metrics of success. The metrics would also support the development of PIAP as they would allow for comparisons between anticipated and observed effects.

The Post Phase of PIAP provides tools for re-developing interventions for a project's future steps. The roadmap card (Figure 5) collects realisations and gives possibilities to re-frame the ToCs and one's project evaluation criteria. A roadmap can be produced for every

relevant impact statement, and they together can be seen as a future scenario for the next coming action worth implementing. The card asks:

- What are the risks associated with the planned actions and their impacts? Rebound effects need also to be considered. Rebound is a situation where planned intervention turns to cause more harm than positive benefits (SITRA).
- What opportunities can be seen in relation to the planned actions and their impacts?
- What steps should be taken to turn opportunities into action or to manage the risks?
- What target value is delivered?
- How will the target value be measured?

## 7.2 Discussion of FDC impact evaluation

The Impact statement survey was planned to be part of PIAP originally, but as it proved to provide little results compared to the efforts, we've replaced the survey with other agile evaluation methods for guiding a project's or an organisation's strategic planning. For the FDC project, the survey and the work around it served also the purpose of creating policy recommendations. Our view of the prospective assessment in the FDC project was that the evaluation of impact statements should be conducted with the involvement of stakeholders. This way, the process emulates the EU's double materiality analysis and could support responsible communication. This approach also provides a broader perspective beyond the project team itself, extending towards their end-users. (EU commission, 2022.)

## 7.3 Contribution to current understanding in the Innovation management community

Presenting iterative PIAP for innovation management: based on frame innovation (Dorst, 2015), supported by new tools, combining imaginative foresight with analytical reflection. Clear goal-setting and iterative evaluation can be essential, thus PIAP addresses underlying assumptions while enabling the creation of meaningful metrics to monitor progress and guide projects toward transformative outcomes.

In conclusion, the FDC and PIAP, both could be seen as ideal initiatives and case studies applying and combining Planetary Social Pedagogy (Salonen & al. 2023) and The Transition Design Framework (Irwin & al. 2022).

### 7.3.1 Practical implications: gains from the findings

The key benefiter of PIAP are R&D teams, developers (e.g. cultural organisations), and policy makers. PIAP supports the transition to epistemic, systemic understanding, and helps to uncover surprising interdependencies. Key benefits to gain are:



- Strategic work—towards holistic cultural sustainability
- Setting objectives for right choices and decisions (wisdom-based)
- Conceptualisation—aligning mission and vision
- Systemic value—futures thinking and foresight
- Co-creation—a broader understanding of inclusion
- Resilience—developing one’s own change-making agency
- Meeting eco-social credibility

## 8 Future plans

In this work, the first version of the FDC policy recommendation concept was created. In the next step, the recommendations (tables 7-10) should be tested by target groups, who might make use of them in their own development work. This means actors and key stakeholders outside of the FDC project. Based on the understanding gained from testing, the necessary improvements could be made and published as part of the to be finished PIAP Continuum Guide for Change-Makers.

The development of the first version of *PIAP Continuum Guide for Change-makers* continues in spring 2026. The comprehensive PIAP Guide together with the framework will be processed further including also PIAP and its tools. The whole guide will be presented for FDC project consortium meeting in April 2026, Marseille, France.

There has arisen a need to study several fields more deeply to develop PIAP further: *How could we further develop the aspects of PIAP to strengthen its validity and theoretical foundation* (e.g., planetary social pedagogy, transition design)?

PIAP is available for everyone to explore and utilize to develop their own systems thinking skills and change-making agency. A side outcome of our development work is an open university course: Prospective Impact Assessment in Sustainable Project Work (Master) 5 ECTS available online starting January 2026. We hope the course will itself give us insight how PIAP should be developed further.

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***“People need art to re-imagine a new world.”***

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- Selma Vihunen, movie director (Joutsenvirta & Salonen, 2020, 187)

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## Table of Tables

Table 1 The Theory of Change per FDC clusters.....	8
Table 2 Evaluation criteria .....	13
Table 3 Prospective Impact Pro-active Table with the strongest positive and negative impact statements for Cluster Biodiversity.....	18
Table 4 Prospective Impact Pro-active Table with the strongest positive and negative impact statements for Cluster Commoning.....	19
Table Prospective Impact Pro-active Table with the strongest positive and negative impact statements for Cluster Impermanence .....	20
Table Pedagogical framework for PIAP Continuum Concept.....	22
Table PIAP Continuum: Embrace life to re-empathise .....	24
Table 8 PIAP Continuum: Remembering the future.....	24
Table 9 PIAP Continuum: Structure creates independence .....	25
Table 10 PIAP Continuum: Co-creating shared and just for all.....	25



## Table of Figures

Figure 1 The Prospective Impact Assessment Process (PIAP).....	10
Figure 2 A visualisation of the FDC project prospective evaluation process. ....	14
Figure 3 The results from the impact statement survey show a slight tendency between Significance and Probability assessments as the assessments seem to follow a diagonal line. ....	16
Figure 4 PIAP Pedagogical Framework for Change-Makers. Adapted from Transition Design Framework (Irwin & al. 2022) and A Theory of Planetary Social Pedagogy (Salonen & al. 2023).....	23
Figure 5 An example of impact visualisation.....	26
Figure 6 PIAP Post-phase roadmap card could be used for the processing of results of participatory co-creation workshops in the internal development work of organisations.....	27



## Table of Surveys

FDC pilot carried out an impact assessment survey during the Post Phase. These are referenced in the text as Impact assessment questionnaires, 2025.

- Impact assessment questionnaire: ANTI / Kuopio, 2025.
- Impact assessment questionnaire: CHRONIQUES & LA FRICHE / Marseille, 2025.
- Impact assessment questionnaire: KONTEJNER / Zagreb, 2025.
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