This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101004480.

AI4PublicPolicy

Project Acronym:	**AI4PublicPolicy**
Project Title:	Automated, Transparent Citizen-Centric Public Policy Making based on Trusted Artificial Intelligence
Project Number:	101004480
Topic:	**Horizon 2020 Research and Innovation Programme** **DT-GOVERNANCE-12-2019-2020** **Pilot on using the European cloud infrastructure for public administrations**
Type of Action:	**IA - Innovation action**
Start date of the Project:	**March 2021**
Duration of the Project:	**36 months**

D2.8 Plan and report on co-creation activities V1

(Version 1.0, 31/08/2021)

Deliverable:	D2.8 Plan and report on co-creation activities V1
Work Package:	WP2 Specifications and Co-Creation for AI-Based Policy Management
Due Date:	August 2021
Submission Date:	31 August 2021
Lead Beneficiary:	VIL
Version:	1.0
Status:	Final version
Author name(s):	Ada Pellumbaj (VIL), Ilias Trochidis (VIL)
Contributors:	Eduardo Silva (LIS), António Sequeira (LIS), Janneke Breeuwsma (ALBV), Dimitra Stefanatou (ALBV), Claudia Amador (UNP), All partners
Reviewer(s):	UNP	LIS
Keywords:	AI, artificial intelligence, public policy, policymaking, project, deliverable, co-creation, co-design, workshop, pilots
Nature:	☒ R – Report ☐ P – Prototype ☐ D – Demonstrator ☐ O - Other
Dissemination level:	☒ PU - Public ☐ CO - Confidential, only for members of the consortium (including the Commission) ☐ RE - Restricted to a group specified by the consortium (including the Commission Services)

The **AI4PublicPolicy** Consortium consists of:

Participant #	Participant organisation name	Short Name	Country
1 (Coordinator)	GFT ITALIA SRL	GFT	Italy
2	STICHTING EGI	EGI	Netherlands
3	INTRASOFT INTERNATIONAL SA	INTRA	Luxembourg
4	SIA SPA	SIA	Italy
5	NOVOVILLE LIMITED	NOVO	United Kingdom
6	UNPARALLEL INNOVATION LDA	UNP	Portugal
7	VILABS (CY) LTD	VIL	Cyprus
8	ARTHUR'S LEGAL BV	ALBV	Netherlands
9	UNIVERSIDAD POLITECNICA DE MADRID	UPM	Spain
10	DIMOS ATHINAION EPICHEIRISI MICHANOGRAFISIS	DAEM	Greece
11	COMUNE DI GENOVA	CDG	Italy
12	LEFKOSIA MUNICIPALITY	NIC	Cyprus
13	LISBOA E-NOVA - AGENCIA DE ENERGIA E AMBIENTE DE LISBOA	LIS	Portugal
15	REPORTBRAIN LIMITED	RB	United Kingdom
16	OBSHTINA BURGAS	BURGAS	Bulgaria
17	EKSO SRL	EKSO	Italy

Revision history			
Version	**Date**	**Modified by**	**Comments**
0.1	17/07/2021	VIL	ToC
0.2	24/07/2021	All partners	Comments sent
0.3	27/07/2021	VIL	First draft
0.4	28/07/2021	ALBV	Updated Annex 3
0.5	03/08/2021	All partners	Comments sent and revisions were made
0.6	20/08/2021	VIL	Updates on the first draft and second draft version for review
0.7	25/08/2021	UNP, LIS, DAEM, ALBV	Comments and revisions were made according to the quality management plan
1.0	31/08/2021	VIL, GFT	Final review

Table of Contents

List of Figures

List of Tables

Abbreviations

AI	Artificial Intelligence
DL	Deep Learning
EC	European Commission
EOSC	European Open Science Cloud
EU	European Union
GA	Grant Agreement
H2020	Horizon 2020 Program of the European Commission
HPC	High Performance Computing
KPI	Key Performance Indicator
ML	Machine Learning
NLP	Natural Language Processing
VPME	Virtualized Policy Management Environment
WP	Work Package

Executive summary

This document (D2.8 "Plan and report on co-creation activities V1") was developed within the framework of WP2 "Specifications and Co-Creation for AI-Based Policy Management". WP2 is devoted to producing key specifications for the project's AI-based policy making paradigm, while including the user studies and the co-creation activities. The WP2 user studies and co-creation sessions will provide requirements for integrating and operating the pilot systems, while at the same time receiving feedback from the pilot systems regarding the specifications of the AI technologies and VPME of the project.

D2.8 "Plan and report on co-creation activities V1" provides the plan for the co-creation sessions and workshops that will take place within the framework of T2.6 "Co-creation Sessions and Workshops". This task contributes towards the active involvement of the local ecosystems of the AI4PublicPolicy pilot sites (i.e., citizens and businesses in DAEM, CDG, LIS, NIC, BURGAS) in the policy creation, evaluation and optimization processes. Co-creation sessions and workshops will be organized, initially at the use cases' locations and later in the project in different locations from the use cases, to obtain input that will drive the innovation and technical activities of the project. The sessions and workshops will address functional and non-functional properties of the AI4PublicPolicy outcomes. The co-creation workshops will have follow-up sessions with the different focus groups to ensure that the obtained feedback and the up-to-date developments of the project address their emerging requirements. Additionally, the outcomes of this task will feed the sustainability and exploitation activities of the project (WP8) given the facilitated interaction with the stakeholders and the focus groups.

D2.8 "Plan and report on co-creation activities V1" is a live document that provides the initial plan for the co-creation sessions and workshops and it will be updated on M19 and M27 of the project, providing deliverables D2.9 and D2.10 respectively, that will outline the outcomes of the cocreation activities.

1   Introduction

1.1   The AI4PublicPolicy project

AI4PublicPolicy is a joint effort of policy makers and Cloud/AI experts to unveil AI's potential for automated, transparent and citizen-centric development of public policies. To this end, the project will deliver, validate, demonstrate and promote a novel Open Cloud platform (i.e., AI4PublicPolicy platform) for automated, scalable, transparent and citizen-centric policy management based on unique AI technologies. The AI4PublicPolicy platform will be an Open Virtualized Policy Management Environment (VPME) that will provide fully-fledged policy development/management functionalities based on AI technologies such as Machine Learning (ML), Deep Learning (DL), NLP and chatbots, while leveraging citizens' participation and feedback. It will support the entire policy development lifecycle, based on technologies for the extraction, simulation, evaluation and optimization of interoperable and reusable public policies, with emphasis on citizen-centric policies development and optimization through the realization of citizen-oriented feedback loops. AI4PublicPolicy will complement public policy development functionalities with the ever-important process reengineering and organization transformation activities towards ensuring the effective transition from legacy policy development models to emerging AI-based policy making.

The AI4PublicPolicy VPME will be integrated with EOSC with a dual objective. First to facilitate access to the Cloud and HPC resources of EOSC/EGI that are required to enable the project's AI tools, second to boost the sustainability and wider use of the project's developments. AI4PublicPolicy's business plan for sustaining, expanding and commercializing the AI tools and the VPME is based on the development of a community of interested and engaged stakeholders (i.e. public authorities and other policy makers) around the project's platform.

1.2   Description of WP2 "Specifications and co-creation for AI-based policy management"

The objectives of WP2 are to:

- Specify the overall architecture for the AI4PublicPolicy platform by identifying components, their functionalities and interconnection, ensuring their coherency with the requirements and global architecture.
- Identify and track end user and technical requirements provided by the use case partners and the technical contributors of AI4PublicPolicy.
- Review the standards and regulations and identify appropriate ones that need to be monitored and followed in the project.
- Analyse the policy making processes to ensure that the outcomes of the project address and enhance/improve these processes, while reducing the bottlenecks in public administration and ensuring high quality and adoption of results.
- Define the data models of the datasets to be utilized for the development, training and actual utilization of the AI models and algorithms of AI4PublicPolicy.
- Define the co-creation. Relevant activities will be regularly reported in D2.8, in-line with the description of the deliverable.

1.3   Purpose and scope

AI4PublicPolicy is developed based on a co-creation approach that will engage the local ecosystems (including citizens, businesses and local actors) in the policy development activities. Co-creation is a collective intelligence process based on collective creativity, following a user-centred, collaborative approach that aims to the production of new, innovative ideas. Co-creation employs several methods, with one of the most popular being the co-creation workshops. A co-creation workshop is conceived as a type of workshop that is primarily focused on action and where all participants collaborate and contribute to find and co-create ways to serve the objectives of the workshop.

The aim of this document is to provide a clear understanding of:

- WP2 "Specifications and co-creation for AI-based policy management" and especially T2.6 "Co-creation sessions and workshops";
- the co-creation concept and describe co-creation workshops as a methodology;
- the co-creation activities that will be undertaken within the framework of AI4PublicPolicy;
- the guidelines that need to be followed to set up and implement successful co-creation workshops;
- the optimal monitoring and evaluation process for the AI4PublicPolicy co-creation workshops.

The plan for the AI4PublicPolicy co-creation sessions and workshops (identifying also the relevant content for different focus groups) will be reported on D2.8 "Plan and report on co-creation activities V1" with the intention to maintain a live document that will be updated on M19 and M27 through D2.9 "Plan and report on co-creation activities V2" and D2.10 "Plan and report on co-creation activities V3" respectively that will outline the outcomes of the cocreation activities (T2.6). D2.8 is due on M7 of the project under the monitoring of T2.6 leader, VIL.

1.4 Structure of the deliverable

D2.8 "Plan and report on co-creation activities V1" involves five chapters that discuss and analyse in detail different thematic topics concerning the co-creation activities of AI4PublicPolicy project.

More specifically:

- The **first chapter** of the document is introductive, aiming to provide some basic information regarding the AI4PublicPolicy project, a brief description of WP2 "Specifications and Co-Creation for AI-Based Policy Management", the purpose and scope of the deliverable, its structure and relation to other WPs and tasks.
- The **second chapter** of the deliverable describes the co-creation concept, including a literature review on the co-creation concept, with special emphasis on co-creation workshops.
- The **third chapter** describes the AI4PublicPolicy pilot sites, the process for implementing co-creation activities within the framework of the project, as well as the relevant materials that have been produced so far.
- The **fourth chapter** of the document involves some guidelines on successfully setting up the co-creation workshops and analyses the methodologies, tools and channels required for this purpose.
- The **fifth chapter** elaborates on the process that needs to be followed to report the first AI4PublicPolicy cocreation workshops.

Finally, the document includes a **sixth chapter** with the conclusions of the document, as well as a section with useful **appendices** related to the document.

1.5 Relation to other WPs and tasks
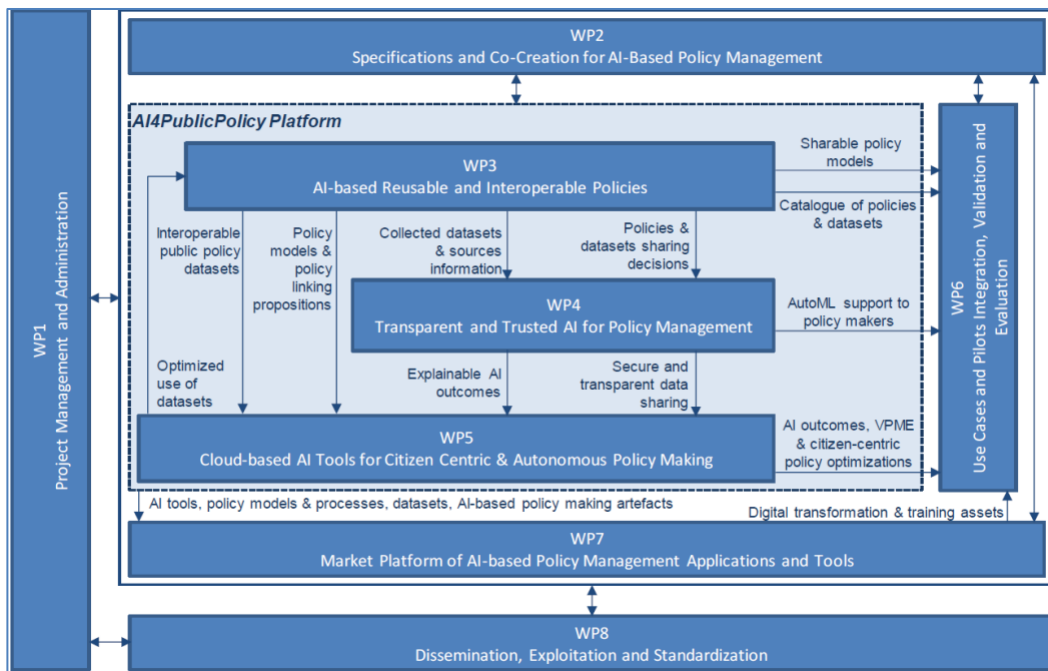
Figure 1: AI4PublicPolicy project workplan

WP2 "Specifications and co-creation for AI-based policy management" is devoted to producing key specifications for the project's AI-based policy making paradigm, while including the user studies and the co-creation activities. More specifically, this work package:

- interacts horizontally with WP1 that includes all the project management activities of AI4PublicPolicy and monitors all the work packages.
- drives all the technical development work packages of the project (i.e., WP3, WP4, WP5, WP7) through providing technical specifications and the AI4PublicPolicy platform architecture.
- has a two-way interaction with the pilot tasks of WP6; on the one hand, the WP2 user studies and co-creation session will provide requirements for integrating and operating the pilot systems, while at the same time receiving feedback from the pilot systems regarding the specifications of the AI technologies and VPME of the project.
- feeds WP8 with useful content to disseminate regarding the advances of the pilots and the outcomes of the co-creation activities of the project.

Hence, WP2 interacts with all the other WPs of the project by providing specifications, requirements and feedback on both a technical and implementational level.

2 The co-creation concept

2.1 Literature review on the co-creation concept

Co-creation is a collective intelligence process based on collective creativity, following a user-centred, collaborative approach that aims to the production of new, innovative ideas. The term has attracted a lot of attention from the scientific community and has been defined in several ways, with the most frequent definitions being the following:

- As a collective intelligence process, co-creation is based on collective creativity, i.e., creativity that is shared by two or more people, and aims at the production of new, innovative ideas (Sanders & Stappers, 2007).

- Co-creation follows a user-centred, collaborative approach where multiple stakeholders, with specialized skills and talents are actively involved in the design process of a product or service, in order to jointly create value (Lusch et al., 2007).

- Co-creation refers to collaboration with users for the purposes of innovation and has become a foundational premise of the service-dominant logic (Prahalad & Ramaswamy, 2004).

- Co-creation is a dynamic and continually changing process, as it involves interactions between the customer, the firm and significant stakeholders and these interactions change along with changes in the market (Randall et al., 2011).

This form of collective intelligence is increasingly popular in many projects and organizations, which can partly be attributed to its proactive market orientation. Market orientation is an approach that focuses on identifying and meeting the stated or hidden needs of users. Unlike past marketing strategies that concentrated on establishing selling points for existing products, market orientation works in reverse, attempting to tailor products to meet the demands of customers. Market orientation can be reactive or proactive; the former involves a company discovering, understanding, and satisfying the expressed needs of customers, whereas the latter involves discovering, understanding, and satisfying the latent needs of customers. A business should practice both forms of market orientation to attract and retain customers, but the challenge lies in identifying and satisfying the latent needs of customers, making co-creation an attractive marketing research method (Narver et al., 2004).

One of the key benefits of employing co-creation methods is the user-centricity they allow. When users are involved in the design or development of goods and services, the end value is enhanced because they can tailor the product according to their needs. Moreover, the participation of users in the co-creation process can offer a competitive advantage by turning just-in-time knowledge from users into just-in-time learning for their organisation (Terblanche, 2014).

Overall, the benefits resulting from the multiple co-creation methods are the following (Narver, et al., 2004; Terblanche, 2014; European Commission, 2014):

- Customized products/services;
- Offer competitive advantages;
- Better customer needs satisfaction;
- Higher customer satisfaction and loyalty;
- Identification of users' latent or unarticulated needs;
- Increased product quality;
- Reduced costs;
- Reduced risk of innovation efforts that do not meet customer needs;
- Reduced time to market for innovations;
- Increased sales and profits for organizations;
- Continuous improvements of products/services;
- Better decision making;
- More successful innovations;

- Direct customer input.

Therefore, through the adoption of co-creation approaches the ability of an organization to provide personalized products, services and better customization to its users considerably increases. To achieve this, co-creation employs several methods such as, co-creation workshops, action research, participatory design, empathic design, etc. AI4PublicPolicy will focus on the co-creation workshops methodology, which is discussed in detail in the following chapter (Chapter 2.2).

2.2 Co-creation workshops

AI4PublicPolicy aims to organise several co-creation workshops to engage the local ecosystems (including citizens, businesses and local actors) in the policy creation, evaluation and optimization processes. Co-creation workshops will be organized to obtain input that will drive the innovation and technical activities of the project.

A co-creation workshop is conceived as a type of workshop that is primarily focused on action and where all participants collaborate and contribute to find and co-create ways to serve the objectives of the workshop. This is done through creative knowledge sharing and constructive activities where the team is invited to negotiate and achieve a common goal. Co-creation workshops may as well aim at the evolution of existing concepts (products or services), finding a solution to an existing problem, analysing, interpreting and evaluating concepts or assisting in the decision-making process. Moreover, according to the type of sessions they include, there can be brainstorming, gamification, introductory, creativity, idea generation and evaluation co-creation workshops (Annex 6, 7, 8).

The typical aim of co-creation workshops is the creation of new approaches to products, services or business models (Butterfly Works, 2013) and to enhance organisational knowledge processes, by involving the customer in the creation of meaning and value. The co-creation workshop aims to "outsource" innovation and value creation for the customer and transforms the customer into an active partner for the creation of future value (Roser et al., 2009). Those impacted by the design are invited to work actively with designers to shape the definition and direction of the project. As shown in Figure 2, during a co-creation workshop key roles get interchanged, as the person who will eventually be served through the design process is given the position of the "expert of his/her experience" and is invited to take an active role in knowledge development, idea generation and concept development.
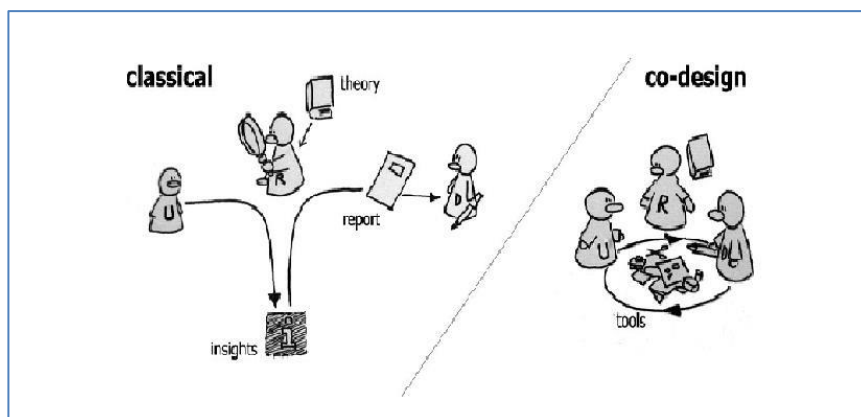
Figure 2: Classical roles of users, researchers, and designers in the design process (on the left) and how they are merging in the process of the co-creation workshops (on the right) (Sanders & Stappers, 2007)

Within this context, deployment of co-creation approaches and particularly co-creation workshops, can be expected to lead to direct and indirect/intangible benefits for both users and firms. Some of these benefits can be the greater customer satisfaction, increased attitudinal loyalty of customers towards service/product providers, increased perceived customer value and increased chances of positive word-of-mouth, i.e., C2C communication (European Commission, 2014). For service design

projects, the benefits that co-creation workshops can offer, may fall into three categories, as shown in Table 1.

Table 1: Benefits from co-creation workshops in service design projects (Steen et al., 2011)

Benefits from co-creation workshops	Benefits for the organization(s) involved	Benefits for the service's users	Benefits for the service design project
Improving idea generation	Improved creativity Improved focus on users Cooperation between disciplines		Better ideas from users Better idea generation Better knowledge about customer's needs
Improving the service		Better fit between service & users Higher service quality More differentiated & customized services	Better service definition More successful innovations
Improving longer-term effects	Successful & Improved innovations Enthusiasm for innovation Better public relations Higher customer's loyalty Higher customer's satisfaction		Better decision making Improved creative process More efficient organization of the project

Therefore, a co-creation workshop is a type of workshop focused on action, where all participants collaborate to co-create new approaches to products, services and business models and find and create ways to address the needs of the workshop. The undertaking of creativity processes that co-creation workshops use, starts with the definition of the workshop's scope, objective and goals and continues with the preparation phase, where the process model and tools for the creativity sessions will be selected, participants will be defined and invited and decisions about the rest of the co-creation workshop's important components will be made (e.g., venue, facilitator, recording methods, evaluation of co-created concepts, thematic topics of focus, documentation of workshop's results, etc.). All these topics are analysed in detail in Chapter 4 of the document.

2.3 Examples of co-creation workshops

Co-creation workshops have their roots in the Scandinavian countries, where the concept of actively involving the key stakeholders (customers, citizens, end users) in the design process, so that the resulting design is usable and meets the real needs of the beneficiaries, was initially conceived. The approach has been employed in a wide range of contexts including among others software design, urban design, product design, and public policy planning. Some successful examples of co-creation workshops are mentioned in this section, in order to offer a better perspective of their process models, tools, activities and practices. This section presents several case studies to demonstrate the key elements that led to their success.

2.3.1 Finland's Living Lab project

Finland's Living Lab project, was initiated in 2000 by a group of retired women in Finland who wanted an alternative for senior housing. The project involved the design and construction of a senior housing arrangement based on neighbourliness and self-help. The citizen group (Active Seniors Association) managed to negotiate with the city of Helsinki the assignment of a price-regulated lot that permitted more concrete planning. While professional design consultants assisted the group, the design work was largely conducted as a collaborative (or collective) work, driven by the future inhabitants of the senior housing. The group employed several co-design tools and material including concept scenario work, paper and functional prototypes, etc. Through a series of co-design workshops, the concept scenarios and ideas were translated into specific features and architectural elements. In addition, following an ideation workshop, the group came up with a design to implement a digital community calendar. Overall, the participatory approach resulted in a design that addressed the citizen group's needs and in the identification and design of several more elements (e.g., digital community calendar) (Nambisa & Nambisan, 2013).

2.3.2 Planmeca Oy

A private company that used co-creation workshops is the Finnish dental equipment company Planmeca Oy. At the beginning of 2007 and because of the increased global competition, Planmeca Oy decided that it needed new services to strengthen its 3D X-ray imaging business. Through market research and literature surveys, a possibility to create a service which was unique to X-ray imaging business was identified. A project team was established in order to further develop this new service concept. The team invited a group of professionals that consisted of users with advanced knowledge in the field, such as dentists, dental technicians, and X-ray and imaging experts, in order to co-create an innovative service. The users together with Planmeca's research team participated in a creativity workshop, where after attending brainstorming sessions and exercises with prototyped models, they co-created several innovative concepts within the area of digital X-rays. The outcome of the workshop was a new online ordering service that allowed dentists to send a 3D X-ray image of the patient directly to Planmeca Oy by using a certain imaging software. The group of users was invited to another workshop where the prototypes were tested. The tests turned out successful, and the service entered the company's product portfolio (Bisgaard & Hogenhaven, 2010)

2.3.3 Power Matching City project

A successful co-creation project that lasted from 2010 until mid-2014, was the Dutch Power Matching City (PMC) project, which included workshops that aimed to discover end users' needs and priorities and co-create innovative concepts for energy services. PMC was set-up by a consortium of complementary stakeholders: end users, energy retailers, a technology company, an ICT company and educational institutes. The project was built up in three phases. In the first workshop participants were introduced to the projects objectives and were informed about its progress. In the second phase the process became much more participatory and aimed at identifying the products and services that were of interest to participants. In a workshop setting, a card game was used to elicit the participants' worries, priorities and future perspectives on energy and energy use. The framework of the game offered participants a safe environment, where they felt free to speak honestly about their real experiences. The first session of the workshop was organized to explore and imagine the future energy supply. Metaphors (such as peak hour rates at trains) were used to grasp new concepts of matching supply and demand and working with variable rates. For each metaphor, participants were asked to reflect upon hopes, worries and solutions concerning the future energy supply. The next session of the workshop included a card game that intended to play out possible options. The cards had four categories: energy generation and storage (e.g., sharing a wind turbine), managing energy streams (e.g., smart appliances reacting to energy price), monitoring and advice (e.g., advice about energy investments), and services (e.g., leasing smart appliances). The full set of options was developed by the project team, based on the input from the previous session. Each option was attributed a price and participants had to decide in groups which options they would like to buy, given

their limited allocated budget. The outcome of the co-creation workshops was the identification of two prototypical innovative energy services (S3C Project, n.d.; Mourik, 2014).

2.3.4 InovCity project in Portugal

The InovCity in Portugal started in 2011 and organized multi-stakeholder co-creation workshops in order to bring down the differences and communication gaps between technology developers and customers. In a workshop setting, the project management of InovCity established direct contact between end users, local officials, IT-experts, communication experts and the project marketing and customer service staff. These workshops served as an informal information exchange in which end users could address concerns directly to the responsible parties. It resulted in a win-win situation that not only took end user needs into account, but also offered experts and technical staff direct access to the end user, enabling them to collect community feedback on the design and operation of technologies and interfaces (S3C Project, n.d.).

2.3.5 "Assessment of sustainable consumption in Latvia" research project

The research project "Assessment of sustainable consumption in Latvia" started in 2011 and was carried out within the EU 7th framework and aimed to strengthen cooperation between scientific institutions and NGOs for achieving new contribution to research, concerning sustainable consumption. In order to assess the main driving forces behind consumption patterns in Latvia, their environmental pressures and the policy responses to them, a series of three co-creation workshops were held, including experts from NGOs and scientific institutions working on sustainable consumption issues. During the first workshop, participants created cognitive maps of their shared understanding of important driving forces that affect consumption patterns of food, housing and mobility. The second workshop was built on the results of the first one and focused on policy instruments, identified from the participants in order to deal with drivers of sustainable and unsustainable consumption. In the last workshop, participants categorized these main instruments based the different role of each stakeholder (government, business, households, mediators). The workshop also made recommendations for each of the stakeholder groups regarding sustainable consumption governance (Schrader et al., 2013).

2.3.6 CIRCO Business Design Track

In 2015, the Dutch company Circle Economy, organized a co-creation project, by the name CIRCO Business Design Track, where companies and multiple stakeholders joined forces to explore new opportunities for products, services and business models that fit within a circular economy. The structure that they followed consisted of three phases (Initiate, Ideate, Implement) and each phase included one workshop. During the first workshop participants were introduced to the concept of circular economy, and to how they can apply circular design to create desirable products and services. Equipped with this knowledge the participants worked together to explore how the different circular design strategies can be deployed. At the end of the workshop each participant would be able to select the most promising design strategies. These strategies would be used as a starting point for the following workshop. The ideation's phase goal was the development of concepts relative to the circular design strategies and business models. The opportunities that were identified during the previous workshop were investigated in this phase. In a number of interactive sessions, knowledge, skills and creativity were combined to translate the insights that were gained earlier into circular products and services as well as business models that have circular potential. This resulted in a range of possible adaptations that could be developed into viable concepts within a short term, opening the door for more circular services in the future. Finally, the Implementation phase, investigated the feasibility and requirements for potential implementation of the concepts that were developed in the previous stages. The final workshop started by identifying the best concept(s) created during the ideation workshop, based on its circular impact and technical and commercial feasibility. A roadmap was then created, containing practical subsequent steps on the road to implementing these concepts (Circle Economy, 2015).

3 Co-creation workshops in AI4PublicPolicy

AI4PublicPolicy integrates, validates and evaluates pilot systems for policy development in real-life use cases. The project's pilots will be developed based on a co-creation methodology through the organization of co-creation sessions and workshops to obtain input that will drive the innovation and technical activities of the project. These co-creation workshops help the project establish effective and direct communication mechanisms with different focus groups to obtain feedback and keep them up to date with the developments of the project. More than thirty (30) co-creation workshops will be organised throughout the 36-month duration of the project, with the involvement of potentially more than 130 participants in total.

3.1 AI4PublicPolicy pilots

In AI4PublicPolicy five (5) different policy making scenarios (i.e., infrastructure maintenance policies, citizens' and business' support policies, revenue/fiscal policies, urban mobility policies, energy management policies and urban planning policies with emphasis on safety, transport and sustainability, etc.) will be considered across five (5) different local/regional governments of the consortium at various EU member states (i.e., Italy, Greece, Portugal, Cyprus, Czech Republic). The pilots will be developed based on a co-creation methodology that will emphasize stakeholders' involvement (including citizens and policy makers' participation) in the policy development and optimization process. Table 2 provides an overview of the project's pilots, including their themes and their linking to other pilots.

Table 2: AI4PublicPolicy pilots

Pilot Leaders	Theme - Policies Involved	Linked Pilot(s)
DAEM (Greece) - Athens	Policies for Infrastructures Maintenance and Repair; Policies for Parking Space Management and Urban Mobility	CDG (Italy) & NIC (Cyprus)
CFG (Italy) - Genoa	Policies for Citizens and Business Services Optimization	DAEM (Greece)
NIC (Cyprus) - Nicosia	Policies for Holistic Urban Mobility and Accessibility	DAEM (Greece)
LIS (Portugal) - Lisbon	Energy Management and Optimization Policies	BURGAS (Bulgaria)
BURGAS (Bulgaria) - Burgas	Data-Driven Water Infrastructure Planning and Maintenance Policies	LIS (Portugal)

3.2 AI4PublicPolicy co-creation workshops

As previously mentioned, the AI4PublicPolicy pilots will be developed based on a co-creation methodology through the organization of co-creation sessions and workshops to obtain input that will drive the innovation and technical activities of the project. These co-creation workshops help the project establish effective and direct communication mechanisms with different focus groups to obtain feedback and keep them up to date with the developments of the project.

The deployments of the co-creation workshops will be streamlined with the project's development phases as follows:

- **Phase 1 (M1-M9):** In the beginning of the project, policy makers, employees/workers in the public authorities and other stakeholders will be interviewed to get a thorough understanding of the current status of production processes, as well as the challenges and potentials of introducing AI systems. AI4PublicPolicy's development ideas (including mock-ups) will be

presented to policy making stakeholders (including citizens) to get their initial feedback about them, along with concrete suggestions for expanding and fine-tuning them (co-creation concept). A common interview template will be utilised to get comparable results from each site. As a minimum two (>=2) workshops involving more than twenty (>=20) stakeholders will be organized at each pilot site (DAEM, CDG, NIC, LIS, BURGAS).

- **Phase 2 (M10-M24):** During the design and development activities, the solutions will be regularly illustrated to the workers and other stakeholders in the form of prototypes' demonstrators. Feedback will be gathered using a common questionnaire template that will study user experience, user acceptance, usability, security, safety and ethics, as well as foreseen impacts on productivity. Feedback can be gathered individually or in focus groups as part of a co-creation concept. The feedback from policy makers, workers in the public authorities, citizens and other stakeholders will guide the design activities. The focus of the design will be both the new secure and safe AI solutions and the new work practices that the technical solutions facilitate. Furthermore, workshops for soliciting feedback on the operation of the first version of the pilot systems will be organized in each one of the pilot sites. Overall, in this phase, at least two (2) workshops involving more than twenty (>=20) stakeholders will be organized at each pilot site.

- **Phase 3 (M24-M36):** In this phase the focus will be mainly in the pilot operations in actual policy making environments (i.e., public authorities, administration). AI4PublicPolicy's solutions will be integrated to IT systems of the public authorities and feedback from workers, citizens and other stakeholders will be solicited. A common questionnaire template will be utilised, which will comprise pilot specific impact indicators. The latter indicators will cover both technical and business aspects, in addition to indicators of citizen experience, citizen acceptance, usability, security and ethics. Overall, in this phase, at least two (2) workshops involving more than twenty-five (>=25) stakeholders/workers will be organized at each pilot site.

Hence, more than thirty (30) co-creation workshops will be organised throughout the 36-month duration of the project, leading to a significant amount of stakeholders directly engaged with the project.

3.3 First AI4PublicPolicy co-creation workshop in DAEM

The first AI4PublicPolicy co-creation workshop organized by DAEM took place on July 13th, 2021, at DAEM premises at Serafeio Complex in Athens. The objective of the co-creation workshop was to review, update and extend the user stories for the "Predictive Citizen-Centric Transport/Parking Policies Development" use case, through the participation of key stakeholders. DAEM was supported during the workshop by NOVO, partner in AI4PublicPolicy and technical provider of the existing parking management application that is operating in Athens.

The workshop was attended by ten (10) people, comprising of DAEM's project team, NOVO, City of Athens officials and citizens. Due to a last-minute emergency, representatives of the DAEM Parking Control Department could not attend the workshop.

The workshop was very interesting in terms of discussions held and overall outcomes. All participants agreed that the proposed application will be very useful both from the citizens' and the Municipality's perspective. New ideas emerged that will enhance the existing use case, or that will provide "food for thought" for future services to be developed. There was active participation by all people present, and they all enjoyed the workshop and the co-creation experience, as was evident from the Workshop Evaluation Questionnaire results. A second co-creation workshop focusing on DAEM's second use case will follow.

More information and details regarding the first AI4PublicPolicy co-creation workshop organised by DAEM partner will be provided in D2.9 "Plan and report on cocreation activities V2", which is the

second in a series of three deliverables and will outline the outcomes of the co-creation activities within AI4PublicPolicy.

3.4 Activities implemented so far

For the optimal implementation of the AI4PublicPolicy co-creation workshops, i.e., the active involvement of the local ecosystems, the obtainment of necessary input about functional and non-functional properties of the project's results and the sustainability of the project, VIL as the T2.6 "Co-creation Sessions and Workshops" leader prepared a set of relevant materials, which will be presented in this section. The preparation of follow-up activities with the different focus groups was also foreseen to ensure that the obtained feedback and the up-to-date developments of the project address the emerging requirements.

More specifically, VIL prepared the following set of materials to be used in the AI4PublicPolicy co-creation workshops:

- The "**AI4PublicPolicy Co-Creation Workshops Handbook**": This handbook was shared with the pilot partners of the consortium, i.e., DAEM, CDG, NIC, LIS and BURGAS, in order to provide useful guidelines regarding how to optimally set up and implement co-creation workshops. These guidelines are also presented in the next section (Chapter 4) in detail.
- A **template for planning the AI4PublicPolicy co-creation workshops** (see "Annex 1: Template for planning the AI4PublicPolicy workshops"): This template includes several questions to be answered by the pilot partners, in order to help them define several important aspects regarding the implementation of the workshop, such as:
    - The scope and objectives of the co-creation workshop;
    - The time plan;
    - The venue;
    - The moderator and the rest of the on-site team;
    - The participants;
    - The structure;
    - The co-creation methods;
    - The evaluation and prioritization criteria;
    - The background material;
    - The connection with the 2nd workshop.
- A **consent form** (see Annex 3: Consent forms): The consent form needs to be signed by the participants before their participation in the AI4PublicPolicy co-creation activities. This form includes, among other, information regarding the project, the purpose of the co-creation workshops, the participants' selection, the procedure to be followed during the workshop, the processing of (personal) data and the related confidentiality, the participants' right to refuse or withdraw from the process, as well as who they can contact regarding any concerns.
- A **template for reporting the AI4PublicPolicy co-creation workshops** (see "Annex 4: Template for reporting the AI4PublicPolicy workshops"): This template is filled by the pilot partner who organises the workshop after the end of the process, in order to report:
    - The workshop's agenda;
    - The workshop's participants;
    - Describe the workshop's sessions, discussions and outcomes and the user stories generated;
    - Give an assessment of the co-creation workshop and conclusions;
    - Provide annexes with photos from the workshop, the consent forms and any other background materials/documents that were used for the purpose of implementing the workshop.
- An **assessment questionnaire for the co-creation** (see "Annex 5: Co-creation workshop's assessment questionnaire"): The assessment questionnaire is filled by the participants after the end of the workshops in order to provide feedback and evaluate the process. The feedback will be used by the pilot partners for suggestions and improvements on the upcoming workshops. More specifically, the participants are asked to provide an overall

evaluation of the workshop (excellent, very satisfied, good, satisfied, fair, quite satisfied, insufficient, not satisfied) and a detailed evaluation regarding :

- The pre-event organisation;
- The objectives of the workshop;
- The quality of the presentations;
- The moderator and of the rest of the team;
- The structure and overall design of the workshop;
- The level of interaction among participants;
- The quality of the emerged user stories;
- The logistical aspects (only for face-to-face workshops);
- The on-site organisation and support;
- The venue's facilities;
- Any other comments they would like to additionally provide.

The following section (Chapter 4) elaborates on all of the abovementioned aspects of the workshops and provides guidelines for their optimal implementation.

4 Guidelines on setting up the co-creation workshops

There is a set of open issues that need to be considered prior to the organisation of the AI4PublicPolicy co-creation workshops. Setting up the workshops requires close collaboration among consortium partners, especially those that will organise the workshops in the respective pilot sites. This section reflects on these open issues/key questions and is meant to assist the workshop organising partners on the planning and implementation of the AI4PublicPolicy co-creation workshops.

Overall, the elements presented below are considered essential for the planning and design of co-creation workshops, highlighting the existing complementarities that are evidenced by a strong iterative process. The iteration means that information gathered, and decisions taken in later stages can cause effects on previous decisions, that may need to be revised and/or reworked considering the new circumstances. In this sense, the goal is to support local partners in perceiving and exploring existing opportunities, and ensure they benefit from having access to guidance and materials able to improve speed, confidence, and value along the design and implementation of the workshops.

4.1 Scope & objectives

The co-creation workshops are a step towards the solution of an identified problem. In AI4PublicPolicy, co-creation workshops will drive the implementation of the project's policy development technologies and tools, as well as the integration and evaluation of the pilot systems and deployments. Even though the overall scope of the co-creation workshops is common, each workshop has different objectives tailored to suit each pilot's specificities. Therefore, AI4PublicPolicy's co-creation workshops can be homogeneous in their structure and based on common questionnaire templates to ensure comparability of the results across all phases, but they can also have different scopes and objectives, considering the peculiarities and unique features of each local site, its context, targeted themes and/or policies involved, as well as any particular interest of the workshop organising partners.

Throughout the different project phases, each pilot site will host several co-creation workshops, whose correlation must be defined as complementary or autonomous. For example, some issues that will not have been properly covered in one workshop may be addressed in another. Moreover, the results of one workshop could feed another for further investigation. Still, workshops could be approached as completely autonomous events with no interconnection between them.

Indicatively, some potential general objectives for the early stages of the AI4PublicPolicy co-creation process could be to:

- Obtain input that will drive the innovation and technical activities of the project e.g., design mock-ups of the AI4PublicPolicy platform that will be utilised by technical partners when collecting and analysing user requirements.
- Review and validate the AI4PublicPolicy use case scenarios.
- Review the overall architecture of the AI4PublicPolicy platform.
- Analyse the policy-making processes to ensure that the outcomes of the project address and enhance/improve these processes while reducing the bottlenecks in public administration and ensuring high quality and adoption of results.

4.2 Adapted thematic topics of focus

AI4PublicPolicy's co-creation workshops will have different focal points from each other. The differences in their thematic topics of focus are based on each pilot site's general context (parking space management, urban mobility, energy management and optimisation policies, etc.), the expertise and interests of the hosting partners and on the need to investigate the applicability of solutions that fall in a specific technological category (AI, machine learning, etc.). Therefore, we should consider the possibility of adapting the co-creation workshops and their themes on the abovementioned aspects.

The outcome of this distinction is that AI4PublicPolicy could adapt the objectives of each workshop to the actual needs of each location. This would potentially help in attracting motivated local users to participate in the workshops, as the objectives of the workshops will be closely connected to their interests, eventually enhancing the quality of the co-creation outcomes.

4.3 Workshop participants

AI4PublicPolicy should invest in a thorough process when selecting and inviting the participants of the workshops. Figure 3 demonstrates the main stages of this process.
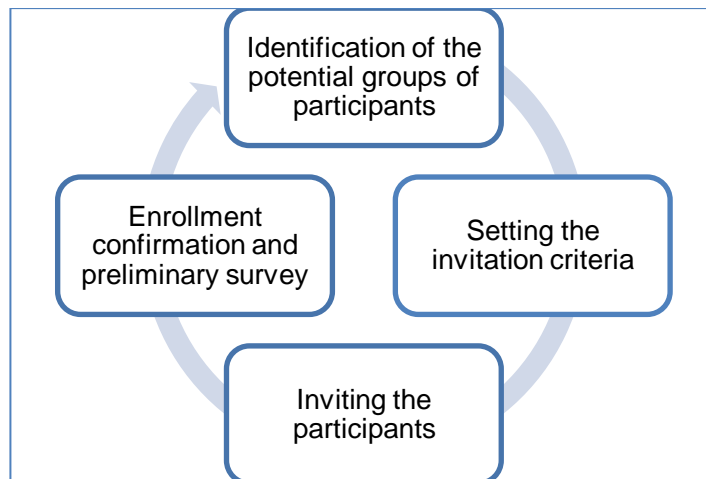
Figure 3: Main stages for selecting and inviting participants

4.3.1 Potential groups of participants

AI4PublicPolicy's co-creation workshops should include a variety of personas, thus, ensuring the heterogeneity of their participants' mixture. Policy makers, local actors, citizens, social entrepreneurs and businesses will have to be considered for participating in the co-creation workshops in order to take into account their insights.

However, it may not be possible to cover all of these groups in each workshop, so depending on the objectives of each workshop, the appropriate mixture of participants should be selected. Table 3 summarises the participants that could be involved in AI4PublicPolicy's co-creation workshops.

Table 3: Potential groups of participants

Groups of Participants	
1	Policy makers
2	Citizens & Community Groups
3	Socially excluded groups (e.g., minorities, elderly, etc.)
4	Public Authorities
5	Experts in the field of AI and Machine Learning
6	Private Entities (energy utilities, transport companies, etc.)
7	Other stakeholders (social entrepreneurs etc.)

4.3.2 Invitation criteria

Some criteria that we could consider when defining the participants are the following:

- **The motivation and attitude towards the subject matter:** Ideally, the people who attend the workshops should be interested in doing so. Achieving a match between the needs of those taking part and the workshops' objectives determines the level of participants' interest and their desire to get involved in the workshop. Thus, AI4PublicPolicy's priority must be to

select participants based on their intrinsic motivation. Involving participants that benefit from the co-created user stories could be very effective, as their interest in the subject matter itself could be a strong incentive that would ensure their engagement in AI4PublicPolicy's co-creation processes.

- **The existing experience and connection of the participant to the subject matter:** To achieve the objectives of the workshop, everyone should have some level of experience in and connection to the subject of the workshops.
- **Gender and age:** We recommend a gender and age balance in the co-creation workshops because when this occurs, the impact is usually greater.
- **Cultural background and work experience:** It would be useful to include participants from different regions, cultures or ethnic backgrounds, as this gives the opportunity to every group to participate, including minorities and socially excluded groups.
- **Number of participants:** The right number of participants depends on the dynamics and material used in each workshop. However, quantity does not mean quality, as the larger the group, the less time available for each person to participate and contribute. Deciding on the number of participants affects the cost and effectiveness of the workshop. According to the GA, we should have more than 20 participants in each workshop. However, if appropriately justified, we can have fewer participants (between 7 to 20 could be considered as appropriate).
- **Participants of workshops in the same location:** We could consider inviting some participants to more than one workshops. This could be affected by the complementarity or autonomy of the objectives and focus of the different workshops.

The importance of successful participant selection cannot be underestimated as the quality of the workshops' results greatly depends on their input.

4.3.3   Inviting the participants

Based on the aforementioned criteria, we should identify the people that will be asked to participate in the co-creation workshops. After potential participants have been identified, the invitations could be sent via email. The invitations should involve a request to reply to the email or fill a registration form via a direct link attached to the email. It is advisable to send invitations to a larger number of people than the desired number of participants, as it is expected that not all of them will be available.

People whose participation is essential could also be contacted by phone. The invitations should be sent out well in advance so that people book their calendars for the workshop. In addition to essential information on the workshop, the invitation should provide an overview of the AI4PublicPolicy project and clearly state the objectives of the workshop.

Some background material could also be sent before each workshop in order to act as food for thought for the creativity sessions. Specifically, a summary of the projects' findings could be included as thought-provoking material. This information will generate a common basis for the subject of the workshops. The workshops' methodology and tools could also be included in this background material. However, there is the possibility that focusing on the method might stray participants' attention away from other substantial information.

Except for the people who will be invited, we should probably develop a reserve list of participants accompanied with all the necessary documents (actual letter of invitation, background material, contact information, etc.) for their invitation. The reserve list will be needed in case the people who were initially invited fail to confirm their attendance in time.

4.3.4   Enrolment, confirmation & preliminary survey

We should specify a deadline for enrolment, which, ideally, should be six weeks before the workshops, in order to offer enough time for additional invitations to be sent in case of limited participation. Final confirmation could then be made through telephone contacts and by sending a preliminary survey to the participants who have enrolled, aiming to explore the participants' level of knowledge on the workshop's subject as well as their needs and expectations from the workshop.

At this stage, it is also essential to share the consent forms with the participants, so that they have enough time to read them and fill them in accordingly before they voluntary participate in the workshop. The consent form to be filled in for the AI4PublicPolicy workshops can be found in "Annex 3: Consent forms". Logistic information can also be sent to participants.

It would be good to contact the participants one week before the workshop to confirm information about the venue (whether it will online or not), the start time, the duration, etc. case of limited participation, we should further exploit the network of key contacts that the workshop organising partners have at their respective local communities.

4.4 Co-creation workshop format

Once the objectives of the workshops are defined, the challenge is to make them viable by choosing and implementing the most appropriate co-creation structure, methods and tools. These will be selected, taking into consideration the workshops' needs and unique features.

4.4.1 Process model/structure

The first step is to define the structure of the workshop, with the most usual structure being a three-phase structure. The structure can be tailored to the specific workshop objectives and activities. The proposed co-creation workshop's structure for AI4PublicPolicy is illustrated in Figure 4.
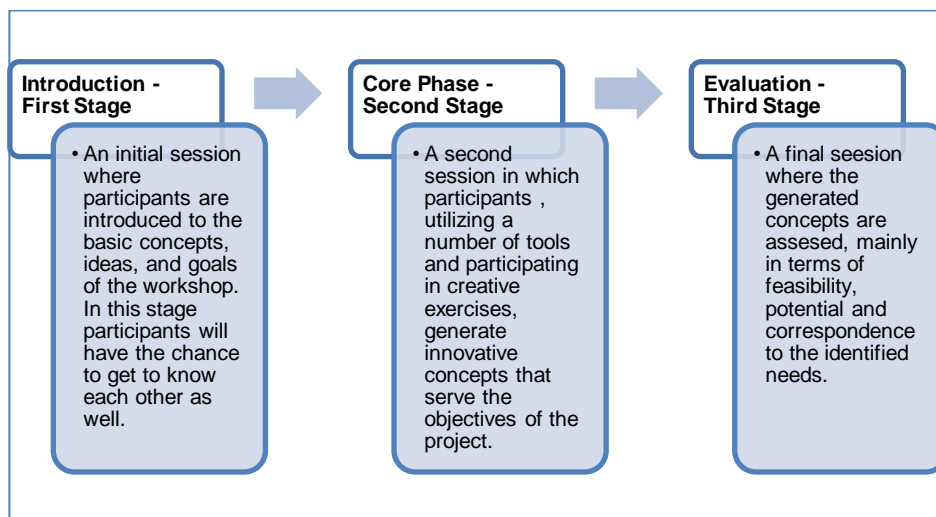
Introduction - First Stage	Core Phase - Second Stage	Evaluation - Third Stage
• An initial session where participants are introduced to the basic concepts, ideas, and goals of the workshop. In this stage participants will have the chance to get to know each other as well.	• A second session in which participants , utilizing a number of tools and participating in creative exercises, generate innovative concepts that serve the objectives of the project.	• A final seesion where the generated concepts are assesed, mainly in terms of feasibility, potential and correspondence to the identified needs.

Figure 4: The proposed co-creation workshop's structure

At the opening of the workshop and before engaging in the co-creation process, the subject matter has to be clearly presented to the participants. Short presentations can be made from members of the hosting organisation as well as from other consortium members or external experts in the field. These will provide an overview of the objectives of AI4PublicPolicy and of the workshop. Presenting the objectives will allow the participants to settle themselves into the workshop from the beginning. During this stage, there should also be some time for questions. In addition, it is strongly recommendable to mention, at the opening, that either in case of a physical workshop that photos will be taken during the workshop and in case of an online workshop that the workshop will be recorded and screenshots will be taken. Notwithstanding the signed consent form before participation, the workshop host needs to ask if the participants agree with that in order to be clear and transparent.

After the initial presentations, the main sessions of the co-creation workshops will be carried out. The workshops should end with a short final discussion where each participant or the groups that were formed gets to share what his/her key findings during the day were. This discussion serves two purposes: it gives the moderator an overall picture of what was discussed during the day and an opportunity to clarify issues that might have been unclear. Discussion is also a good closure for a

day of intense workshop activities. It is a good idea to make an audio recording of this discussion (in case it is not an online workshop). Audio recording is often a big help when writing a report on the results of the co-creation workshop. As a final activity that will bring the participants together a group photo can be taken (a screenshot if it is online).

4.4.2 Methods & tools for co-creation workshops

One major open issue is the methodology of the workshops, which has to be defined in collaboration with the AI4PublicPolicy partners, along with the respective tools and material to be used in this co-creation process. Co-creation workshops include methodologies that aim to develop an environment in which users and stakeholders collaborate and innovate. These methodologies can be adapted to the specific objectives of AI4PublicPolicy's workshops as well as to the local contexts of the sites where they will be applied. Overall, the choice of the workshops' methods is subject to finding a balance among the following criteria:

- The objectives of the workshop.
- The thematic topic of focus of the workshop and its content.
- The type of information we want to obtain: quality versus quantity.
- The size of the group of participants. There are tools that are useful for smaller groups but can lose their impact and effectiveness in larger groups.
- The stage of the workshop's process – whether it is introduced in the initial stage, the second stage or the final stage of the workshop.
- The time available for the method and for the entire workshop as well
- The venue of the workshop.
- The level of knowledge, understanding and training that the participants need for using the method.
- The availability of resources and materials required to implement each method.

The applied methods are usually aided from structured proceedings and visual techniques which can help participants communicate and rationalize ideas.

Following the aforementioned three-stage structure, we have identified several potential methods and tools that serve the objectives of each stage. It has to be underlined that it would be better if the methods and tools utilized in the framework of AI4PublicPolicy co-creation workshops were selected in collaboration not only with the hosting partners but also with the moderator of the process, in case that an external moderator is contracted.

Figure 5 demonstrates this set of proposed alternatives for each of the three stages of the workshop. A more detailed description of these tools will be provided to all partners in a separate document.

Introduction - First Stage
- Standard personal introductions
- Pair introductions - interviews
- The ball of string
- People bingo

Core Phase - Second Stage
- Brainstorming
- World Cafe
- Lego serious play
- Role-playing
- Conceptual Mapping
- Case Studies
- Open Space Technology
- 66 Phillips
- Problem Trees
- Storytelling

Evaluation - Third Stage
- Two dimension axis
- Predefined number of stickers or dots
- 2-4-8 Consensus
- 6 thinking hats
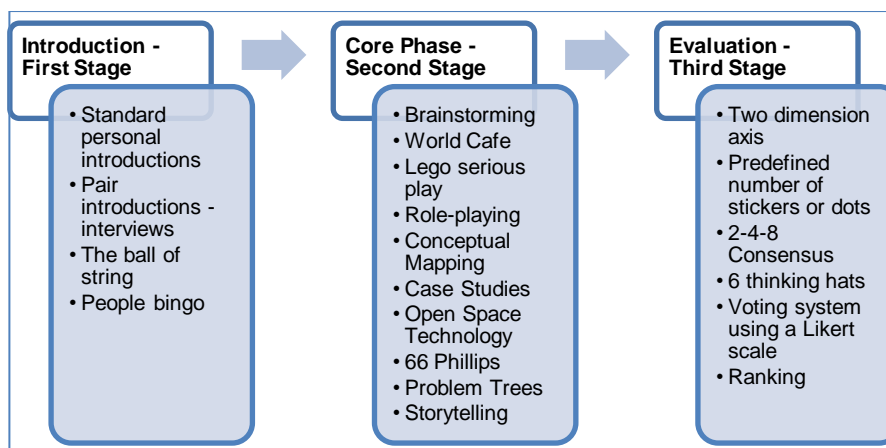- Voting system using a Likert scale
- Ranking

Figure 5: Set of proposed alternatives for the three stages of the workshop

It is recommended that after the introduction in the workshop's schedule, activities, and goals, an "ice-breaker" exercise follows in order to introduce participants to each other. Co-creation workshops

can suffer if participants feel like they did not have the time to build a connection with the rest of the group. Such an exercise is intended to help the group begin the process of forming themselves into a team. "Ice-breakers" are commonly presented as a game to warm up the group by helping the members to get to know each other. We should be clear on what information each participant needs to know (e.g., name, profession, experience in the field, reasons for attending, aspirations from participation, etc.).

The second stage constitutes the core co-creativity session of the workshop and it is the phase in which the desired outcomes will be developed. A selection of tool(s) that stimulate creative thinking and encourage participation must be made. At the beginning of this stage, the moderators should start by giving a description of the applied methods and tools that will be used during the workshop, making sure that all participants have understood how these work and what is expected from them.

In the last stage of the workshop a prioritization must be made in order to identify the most promising key points of the workshop. During the evaluation stage of the co-creation workshop, the generated user stories will be checked and evaluated with regards to some predefined criteria. We should also allow some time to reach a consensus on the final ranking of the user stories and discuss why some of them were ranked in a low position.

4.4.3 Timetable of the methods & tools

We must allow adequate time for the applied co-creation tools to be performed properly because only then will the methods offer the desired results. This demands careful planning concerning the total duration of the workshop, as we must allow enough time for our co-creation tools and still set a duration for the workshop that will not act as a deterrent for participation. It is also important to keep within the predefined time limits that have been set for the tools as this will not only ensure that everything will be addressed adequately but it will also prevent any unforeseen delays in the duration of the workshop. Additionally, when setting the timetable for each activity we should try to avoid participants' fatigue. The sessions should be spread equally with breaks between them.

4.4.4 Materials needed for co-creation workshops

For the co-creation workshops that will be held physically several materials will be needed, depending on the method(s) that we will use. These materials may include equipment for visual presentations, display boards, flipcharts, kraft paper sheets for covering the display boards, post-it notes, stiff paper or cards in several colours, pens, pins, different coloured labels, glue, sticky tape, scissors, stapler, etc.

We have to keep in mind that visualization is the basis for many of the co-creation methods and tools and that it could further stimulate participants' creativity. Thus, it is important that the layout and combination of visual elements are sufficient and the most appropriate for AI4PublicPolicy co-creation workshops.

4.4.5 Recording methods & languages

The co-creation workshops that will be held physically should be recorded throughout their duration. Effective recording will make the participants feel confident that all user stories generated are being documented, but it will also help when it comes to examining and working on the outputs afterwards. Some common recording methods for co-creation workshops are the following:

- **Voice and video recording.**
- **Taking notes when people are speaking.**
- **Photographing any outputs.**
- **Graphic Recorder.** The whole process can be captured by a graphic recorder who draws the group's ideas on flipcharts or a wall mural using text and graphics to illustrate the patterns of the conversation.
- **Post of insights.** Participants can place large notepapers on which a single key insight is written, on a display board, wall, etc., so that everyone can review the ideas during a break.

- **Idea clusters.** Group insights transferred to affinity clusters so that related ideas are visible and available for planning the group's next steps.

Concerning the language in which the workshops will be conducted, we propose that each workshop is carried out in the language of the country that it is being organized. However, an English-speaking translator could be based on site and special arrangements (e.g., material of the workshop translated in other language) could be made if such a demand is made, prior to the workshop, from the participants.

4.5 Moderators

The moderators will be responsible for the application of the methods and tools that will be used to facilitate the co-creation process. They will oversee the process and the dynamics of the workshop. Their special role is to motivate and ensure that each person takes part, to balance the various personalities in the group and to respect the different contributions. Overall, the moderator should have the following responsibilities in the AI4PublicPolicy co-creation workshops:

- Ensure that the chosen methods support the focal thread, the objectives, the participants and the logistics (e.g., whether the actual venue provides the necessary space and facilities for the method to be applied) of the workshop.
- During the workshop, the moderator will explain the methods that will be applied, monitors compliance with the rules, listen carefully, stimulate the discussion, and ensure that it flows and that all participants have equal chances in being part of the process.
- The moderator will not advise on the subject matter or impose his opinions. Instead, she/he will make sure that the workshop adheres to its focus and principles.
- Detect potential conflicts during the workshop and resolve them.
- Be aware of the time devoted to each activity and keep them within time limits.

Attributes of a moderator	
A moderator is…	**A moderator is not…**
Inspiring	A lecturer
Supportive	Superior
Positive	Timid
Challenging	The person with all the answers
A good listener	Rigid
Informal	Judgmental
Approachable	Boring
Energetic	Prejudiced
Resourceful	Perfect
Creative	
Committed	
Flexible	

Table 4: Attributes of a moderator

The advantage of using strong moderators is that their presence can ensure a well-structured workshop and a focus on a common goal. Moreover, it can provide an efficient way to reach the objectives of the workshop by making the most out of the applied methods and tools. In general, a strong moderator will maximize the groups' productivity, energize the participants and increase team cohesiveness.

4.6 Venue

When selecting a venue for the co-creation workshops that will be held physically we should take into account the methods that will be applied and the materials that are going to be needed. These may require the workshops' physical space to have certain features and provide certain facilities. The number of participants that will be invited must also be taken into consideration.

The actual atmosphere of the venue and of the workshop, influences participation in the activities. The working environment of the room determines whether those taking part feel at ease, attentive and alert.

Overall, the ideal venue for the co-creation workshop should have the following features:

- Appropriate technical infrastructure;
- Sufficient space to hold the number of participants as well as for the selected methods to be performed optimally;
- Have appropriate lighting and adequate air circulation and temperature;
- Have comfortable and flexible seating and light tables so that the set-up can be adjusted according to the workshop's needs;
- Have enough wall space or freestanding surfaces for hanging posters so they can be seen by all participants;
- Be quiet and safe;
- Be easily accessible.

Overall, we must dedicate time and attention to secure a suitable venue. It is difficult to find a venue that fits all the abovementioned criteria for each workshop. Therefore, we must consider several alternative options and balance the cost with the advantages that each alternative venue offers. Moreover, the search of a suitable venue for the workshops must start well in advance in order to be finalized several months before the actual date of the workshop.

4.7 Holding co-creation workshops online

In times of crisis (e.g., COVID-19 pandemic), when social distancing is required, workshops may take place online, through digital tools that provide a safe and effective alternative. Remote workshops are slowly but steadily gaining popularity for their practicality, since they allow the interaction of a group of participants led by a moderator, using digital platforms and tools in separate physical spaces.

4.7.1 Co-Creation workshops recommended online digital tools

When carrying out online co-creation workshops, the online digital tools that will be utilised play a significant role in the overall success of the workshop. There are several categories of digital tools, such as:

- **Cloud storage and document sharing** solutions through a cloud allow sharing documents with others and work on them simultaneously (e.g., Dropbox, OneDrive, Google Drive, etc.).
- **Video conferencing** platforms allow connecting with co-participants, as well as screensharing. Some of the provided solutions are Zoom, Skype, Google Meet, etc.
- **Online whiteboard tools** offer a space where you can collaborate, share ideas, brainstorm, and engage in problem solving with people through a visual platform that creates the feeling of working in person. Miro, Mural and Stormboard are among the most popular online whiteboard tools.
- **Online communication tools** that work asynchronously or allow groups to work together over longer periods are an essential part of the online workshop toolbox. Such tools are Slack, and Microsoft Teams.
- **Collaboration tools** for task management serve as complex project management suites, while keeping tasks in order. Among the most popular ones are Trello, Todoist and Asana.

- **Note taking apps and organising information** are crucial for organising, finding, and sharing note. Indicatively, Evernote, Microsoft OneNote, Google Drive combined with Google Docs, and Notion are useful to have all notes in the same place, while using powerful search and sharing features.
- **Meeting planner and agenda planning** facilitate a group session that spans more than a couple of hours and incorporates different workshop activities, theory blocks, team building games and energizer activities. In this case, SessionLab and Google Sheets can help share the workshop plans with other participants and work on them simultaneously.
- **Engagement tools and meeting facilitation software** can make workshops more interactive, and engaging, allowing participants to interact with each other easily, like for instance to poll and visualize the results easily. Stormz, MeetButter, Axis, Mentimeter and Sli.do are among the tools that can allow these sorts of interactions.
- **Online design tools:** When designing workshops, being able to work on visual assets collaboratively can be a huge benefit. Canva is a great tool that makes creating beautiful designs easily, as well as Figma, Invision and Bonus.
- **Survey tools for needs assessment or evaluation** and feedback from participants can be accessed through platforms, such as Google Forms, EU Survey, Typeform, and SurveyMonkey.

4.7.2 Challenges with Virtual Online Workshops

The most frequent challenges to encounter when organising virtual co-creation workshops are:

- **Activating people and creating a relaxed and trustful environment in a digital workshop** can be challenging, but equally as important as in physical workshops. Traditional check-ins, posing short questions that are easy to answer from a personal perspective, and having the same rules for every participant can contribute towards creating that environment.
- **Choosing the right tools** over which we have control and understanding is very essential. The combination we tend to favour is any video conferencing tool along with a digital facilitation platform. Overall, mixing different methods is a good idea.
- **Getting people's attention** is hard during online workshops, since people tend to have a shorter attention span when it comes to working in a digital environment. It is also much harder to tell how the energy in the group is. For this reason, it is better to have a plan based on smaller interventions mixed with shorter synchronous video calls.

4.8 Dates and duration of the co-creation workshops

The duration of AI4PublicPolicy's co-creation workshops will be, mainly, determined by their objectives. Another aspect that affects the length of the workshops is participants' available time. With these issues in mind along with the workshop's structure and applied co-creation methods, AI4PublicPolicy partners should set the appropriate duration of the workshops.

When it comes to selecting the dates of the workshop, we should avoid clashes with public holidays or other activities that might be of interest for the participants. It would also be better if we did not plan our workshops closely to public holidays as well. AI4PublicPolicy's co-creation workshops are going to be planned between M1 and M27 of the project, with the first workshops taking place between M5-M9 of the project (August - November 2021). The exact timing of the workshops has not yet been defined, except for DAEM's first co-creation workshop that was held on 13 July 2021.

4.9 Workshop follow-up activities

Follow-up activities are a key part of the workshops. Once each AI4PublicPolicy co-creation workshop has finished, a technical report will be drafted about how the workshop was run and its results. Specifically, this report will include all necessary information such as a list of the participants and relevant information about them, the members of the consortium that participated in the process and their role in it, the methodology and material used, a description of all the different sessions and a list with all the co-created user stores along with their description. This report will be rolled out

among the members of the consortium as well as to all the workshop's participants. Something that could also prove helpful would be the categorization of each co-created concept, according to the participants' group that developed it. Doing this, can lead to a better identification of the needs of specific target groups.

A good way to improve the quality of the information collected during the workshops and to ensure that the report reflects the ideas of the participants, is to make a short survey for the participants regarding any ambiguous points. These points may be the result of unclear handwriting or unclearly presented, yet interesting, ideas.

In addition to the report, an evaluation of the workshops could be made shortly after their completion. A qualitative and quantitative assessment of how the workshop went could take place, probably through emailed questionnaires sent to the workshop's participants. This participants' feedback can give us the chance to reflect on the things that we should do differently and improve in the upcoming workshops. The elements of the workshop that could be evaluated are the following:

- The structure and design of the workshop;
- The methods, the tools and materials used;
- The style of the moderators and the rest of the team;
- Meeting the predefined workshop's objectives;
- Meeting their own objectives;
- The level of interaction among participants;
- The level of enjoyment;
- Logistical aspects (venue, proximity to areas of interest, food, refreshments, etc.).

Hence, for the evaluation and follow-up activities of the workshop, an assessment questionnaire was created to be filled by the participants after the end of the workshop, addressing all of the abovementioned evaluation points. The full questionnaire can be found in "Annex 5: Co-creation workshop's assessment questionnaire".

5 Reporting on the first AI4Publicpolicy co-creation workshops

5.1 Online dissemination activities report

The AI4PublicPolicy Dissemination Activities Report is an online tool used by all consortium partners to report and keep track of the dissemination and communication activities that have been implemented throughout the project. The dissemination reporting tool is available online and can be accessed through the following link:
https://ec.europa.eu/eusurvey/runner/AI4PublicPolicyDisseminationActivitiesReport.

All AI4PublicPolicy consortium partners need to report any dissemination and communication activity they implement to the online reporting tool. The types of dissemination activities that AI4PublicPolicy partners could potentially engage with are:

- Organisation of a Workshop or a Networking event
- Participation to a Workshop
- Participation to a Conference
- Participation to an Event other than a Conference or a Workshop (Networking events, Exhibitions, Symposia, Webinars etc.)
- Participation in activities organized jointly with other H2020 projects (Synergies)
- Training Session
- Press release
- Newsletter
- Scientific and peer reviewed publication (article and/or papers and/or presentation)
- Non-scientific and non-peer-reviewed publication (popularised publication) (Blog entries)
- Media Publications (News pieces, articles etc.)
- Poster
- Flyer
- Social Media
- Website
- Video/Film
- Other

The dissemination reporting is an internal process among consortium partners that the WP8 leader will use in order to:

- Feed the project website with information about the reported activities;
- Share the reported information through the project's social media (Facebook, Twitter, LinkedIn);
- Analyse the information to extract statistics and conclusions that will publish on a frequent basis to the consortium in order to monitor the progress and take any mitigating actions if needed.

The co-creation sessions and workshops of the project are a very essential part of the AI4PublicPolicy dissemination and communication strategy and critical for the overall project success. Thus, it is of high necessity that all project partners that engage with co-creation activities proceed with the full documentation of the workshops (as described in Section 4.4.5) and report the workshop on the online reporting tool (see Figure 6).

Figure 6: AI4PublicPolicy dissemination activities report

5.2 Template for reporting the AI4PublicPolicy co-creation workshops

When a co-creation workshop has been completed the organising pilot partner should proceed with filling the template for reporting the AI4PublicPolicy workshops. The whole template can be found in "Annex 4: Template for reporting the AI4PublicPolicy workshops".

The information required to fill in the template are the following:

- **Introduction**: A part that will state the time and place of the workshop's implementation, its objectives and a brief summary of its structure, proceedings and overall success in achieving its goals. One photo can be included.
- **The workshop's agenda**: Presentation of the workshop's agenda with a brief description of its main parts.
- **The workshop's participants**: Description of the participant groups, participant profile, invitation criteria and a full list of participants along with relevant information (name, contact details, stakeholder group, etc.).
- **Description of workshop's sessions, discussions, outcomes**: A detailed description of the overall structure of each workshop phase including:
  - A description of the on-site team (moderator and the rest of the on-site team along with their roles)
  - A description of the process that was followed / of the structure of the workshop
- In addition, a detailed description of each session should be included (introduction, main co-creation phase, evaluation phase, a possible final wrap up session)
  - the people in charge of each session, exercise, presentation, etc.;
  - the methods used and how they were used;
  - the main remarks of each session;
  - the main outcomes of each session.
- **User stories generated**: A brief description of the user stories along with their evaluation.
- Co-creation workshop's assessment: Here you should include the results from the evaluation of the workshop's main aspects. This evaluation will be made through the assessment questionnaires which can be found in "Annex 5: Co-creation workshop's assessment questionnaire".
- **Conclusions**: Conclusions and possible next steps (e.g., organisation of the second workshop, utilization of the co-created concepts within your organisation, etc.)
- **Annexes:**
  - Photos of the workshops;
  - Consent forms (see "Annex 3: Consent forms");
  - any other background material / document that should be included.

The reporting template can either be directly submitted through the online dissemination activities reporting tool (see Section 5.1) or sent via email to the T2.6 leader, VIL.

6   Conclusions

AI4PublicPolicy is implemented using a co-creation methodology and a participatory design approach that involves all relevant stakeholders. This document, D2.8 "Plan and report on co-creation activities V1", presented the detailed plan for setting up the AI4PublicPolicy co-creation sessions and workshops. The intention of the consortium is to maintain this report as a live document that will be updated on M19 and M27 of the project according to the advances and progress of the AI4PublicPolicy co-creation workshops, leading to the creation of deliverables D2.9 "Plan and report on co-creation activities V2" and D2.10 "Plan and report on co-creation activities V3" respectively. The following deliverables will outline the outcomes of the co-creation activities organised within the framework of T2.6 "Co-creation Sessions and Workshops".

7 References

Arvidsson, F., Ihlström, C. & Lundberg, J. (2002), Vision of future news – Consensus or conflict?, Proceedings of the 25th Information Systems Research Seminar in Scandinavia, Bautahoj, Denmark, August 10-13, 2002

Bertini, P. & Plumpley, E. (2014). Co-Creation: Designing With the User, For the User, 02/12/2014, http://www.uxbooth.com/articles/co-creation-designing-with-the-user-for-theuser/

Bisgaard, T. & Hogenhaven, C. (2010), Creating new concepts, products and services with user driven innovation, Nordic Innovation Centre

Butterfly Works (2013). Co-creation Method for a better world – White Paper, Butterfly Works, http://www.butterflyworks.org/mmbase/attachments/25662/CoCreationMethod_White_paper_08-01-2013.pdf

Circle Economy, (2015), CIRCO Business Design Track, http://www.circleeconomy.com/event/circo-business-design-track-workshop-3-implement-2/

Cruickshank, L., Coupe, G. & Hennesy, D. (2013), Co-design: Fundamental Issues and guidelines for designers. Beyond the castle case Study, Swedish Design Research Journal, 2(13).

Daye, D. (2014). New Product Co-Creation Workshop, 23/09/2014, http://www.brandingstrategyinsider.com/2014/09/new-product-co-creationworkshop.html#.VXbWe0aN3qV

European Commission (2014), Design for Innovation. Co-creation design as a new way of value creation-Case study 14, Directorate-General for Enterprise and Industry, Directorate B "Sustainable Growth and EU 2020", Unit B3 "Innovation Policy for Growth". http://ec.europa.eu/growth/industry/innovation/business-innovation-observatory/files/casestudies/14-dfi-co-creation-design-as-a-way-of-value-creation_en.pdf

Hill, R. (n.d.), Planning a Workshop: Organizing and Running a Successful Event, http://www.mindtools.com/pages/article/PlanningAWorkshop.htm

Kensing, F. & Madsen, K.H. (1991). Generating visions: Future workshops and metaphorical design. In J. Greenbaum & M. Kyng (eds.), Design at work: Cooperative Design of Computer Systems. Lawrence Erlbaum, Hillsdale NJ, 155-168.

Kensing, F. (1987). Generation of visions in systems development. In Docherty, P., Fuchs Kittowski, K., Kolm, P., & Mathiasen, L. (eds.), Systems design for human and productivity – Participation and beyond. Amsterdam: North-Holland, 285-301.

Kristensson, P., Matthing, J. & Johansson, N. (2008), Key strategies for the successful involvement of customers in the co-creation of new technology-based services, International Journal of Service Industry Management, 19(4),474-491

Lusch, R.F., Vargo, S.L. and O"Brien, M. (2007), Competing through service: insights from service-dominant logic, Journal of Retailing, 83(1), 5-18.

Moon, D. (2012), 7 Tips to Running a Successful Co-creation Workshop, 28/06/2012

Mourik, R. (2014), Showcasing the Power matching City project on user engagement - Power matching city: power to the people?, IEA

Nambisa, S. & Nambisan, P. (2013), Engaging Citizens in Co-Creation in Public Services: Lessons Learned and Best Practices: Collaboration Across Boundaries Series, IBM Center for the Business of Government.

Naranjo-Bock, C. (2012), Creativity-based Research: The Process of Co-Designing with Users, 24/05/2012, https://uxmag.com/articles/creativity-based-research-the-process-of-codesigning-with-users

Narver, J.C., Slater, S.F. and MacLachlan, D.L. (2004), Responsive and proactive market orientation and new-product success, Journal of Product Innovation Management, 21(5),334-347.

Newman, J. (2001). Participatory Workshops: Facilitating a Participatory Workshop. http://www.lupinworks.com/roche/workshops/2-techniques.php

Prahalad, C. K., & Ramaswamy, V., (2004). "Co-creation experiences: The next practice in value creation". Journal of interactive marketing, 18(3), 5-14.

Randall, W.S., Gravier, M.J. & Prybutok, V.R. (2011), Connection, trust, and commitment: Dimensions of co-creation, Journal of Strategic Marketing, 19(1), 3–24

Romero, D. & Molina, A. (2009), Value co-creation and co-innovation: Linking networked organisations and customer communities, Leveraging Knowledge for Innovation in Collaborative Networks: IFIP Advances in Information and Communication Technology, Vol. 307, 401-412

Roser, T., Valdivieso-Cruz, E., Humphreys, P. & Samson, A. (2009). Co-creation: New pathways to value: An overview, LSE Enterprise & Promise Corporation

S3C Project (n.d.), Smartgrid Engagement Toolkit. Guideline: Co-creation, http://www.smartgrid-engagementtoolkit.eu/fileadmin/s3ctoolkit/user/guidelines/S3C_Guideline_Co-creation.pdf

Sanders, E. & Stappers, P. (2007). Co-creation and the new landscapes of design, CoDesign, 4(1), 5-18.

Schrader, U., Fricke, V., Doyle, D. & Thoresen, V.W. (2013), Enabling Responsible Living, Sprienger, London

Slocum, N. (2003), *Participatory Methods Toolkit: A practitioner's manual*, viWTA, King Baudouin Foundatin & UNU/CRIS, Belgian Advertising

Steen, M., Manschot, M., & De Koning, N. (2011). Benefits of co-design in service design projects, International Journal of Design, 5(2), 53-60.

Terblanche, N. (2014), Some theoretical perspectives of co-creation and coproduction of value by customers, Acta Commercil,14(2) The Digital Gate, The airport innovation challenge, http://thedigitalgate.gr/

Vavoula, G. & Sharples, M. (2007), Future Technology Workshop: A Collaborative Method for the Design of New Learning Technologies and Activities, International Journal of Computer Supported Collaborative Learning, 2(4).

Annexes

Annex 1: Template for planning the AI4PublicPolicy workshops

Project Acronym:	**AI4PublicPolicy**
Project Title:	Automated, Transparent Citizen-Centric Public Policy Making based on Trusted Artificial Intelligence
Project Number:	101004480
Topic:	**Horizon 2020 Research and Innovation Programme** **DT-GOVERNANCE-12-2019-2020** **Pilot on using the European cloud infrastructure for public administrations**
Type of Action:	**IA - Innovation action**
Start date of the Project:	**March 2021**
Duration of the Project:	**36 months**

Template to be filled for planning the AI4PublicPolicy workshops

(Version 1.0, 28/05/2021)

Detailed plan for the first co-creation workshop

Detailed plan for the 1st co-creation workshop
Partner:
Scope and objectives of the co-creation workshop
Please define the scope and objective(s) of the workshop and reason your decision   You should always keep in mind that the first workshops' overall scope is to review, update and extend the user stories. Do you agree with that? Can you better describe this objective?   For defining your objectives, you can consider: • Your user (policy makers, citizens) needs   • The local specificities   • Your own interests and priorities   Can you formulate your objectives as the questions that you are going to ask?
Time plan
Please define the date of implementation for the workshop   For defining the date of implementation, please consider the following: • AI4PublicPolicy first two co-creation workshops will be implemented between M4 (June 2021) and M9 (November 2021) of the project.   • "D2.6 Plan and report on co-creation activities V1" is due on 31 August 2021. The planning should be ready by that time and every pilot could have run at least one workshop.
Venue
Please define the type of venue that you are going to use   Things to consider: • Will the first workshops be online?   • If not, will you use conventional meeting rooms that will provide the necessary space and infrastructure to ensure the optimal conduct of the workshop?
Moderator and rest of on-site team
Please define whether you are going to use an external or an internal moderator   Things to consider for defining the moderator: • We suggest that you use an experienced moderator to run the workshops, as this can ensure their optimal conduction.   • It is suggested that the moderator is engaged early in the planning process and especially during the selection of the co-creation method(s).   **Please define the rest of the on-site team**   Things to consider for defining the rest of the on-site team: • Define any extra roles you need for conducting the workshop (assistant, secretary, support staff to take care of catering and other organizational issues, etc.).
Participants
Please define your target number of participants   • How many participants will you involve in the process (from 7 to 25 should be ok)?   **Please define the groups that you are going to include in the workshop**   Possible target groups: • Policy makers   • Citizens and Citizen groups   • Socially excluded groups (e.g. minorities, elderly etc.)   • Experts in the field of AI and Machine Learning

- Other stakeholders (Social entrepreneurs, businesses etc.)
- Other?

You should include groups of people that will ensure the heterogeneity and commitment of the participants' mixture.

Please define your participants' profile

Recommendations for defining participants' profile:
- Selection of people with interest in the subject matter (intrinsic motivation)
- Working experience background
- High level of expertise with the subject matter
- The representative's actual role in the organisation
- Age and gender balance
- Other?

It is suggested that you include people with profiles that ensure the heterogeneity and commitment of the participants' mixture.

Please define the invitation and promotion process

Recommendations for setting up the invitation process / Things to consider:
- How are you going to invite participants? (Personal invitations via email, invitations directly to potential participants, invitations at an organizational level where you will state the number and profile of the desired participants, etc.)
- How long before the workshop will you send the invitations?
- Will you make a reserve list of participants that you will use in case of limited participation?
- What deadline will you set for the confirmation of participation?

Recommendations for the promotional activities:
- Are you planning to publicize the event in relevant places and networks?
- Will you use your organisation's promotion channels? Other?

Structure

Please define the structure that you will follow for the workshop

Will you use the following three phase structure? Will you make any adaptations?
- Introduction (introduction to the project and presentation of the objectives of the workshop; first introduction of participants to each other)
- Core co-creativity phase (the core workshop's phase where the user stories are presented and further developed by utilizing one or more co-creation concepts)
- Evaluation / prioritization of concepts (an initial evaluation / prioritization of the user stories by following a method such as dot voting)

Co-creation methods

Please define the co-creation method(s) that you plan to use during the core co-creativity session

- Brainstorming sessions, World Café, Lego Serious Play, Conceptual Mapping, Problem Tree, storytelling, case studies, etc.
- It is suggested that the co-creation method(s) is selected in collaboration with the moderator of the workshop, or that you select a moderator experienced with the method that you are going to use.

Evaluation & Prioritization criteria

Please define the assessment criteria that you will use to evaluate the user stories

Recommendations about possible assessment criteria:
- Feasibility
- Correspondence with user needs
- Other?

The user stories could be assessed in total or they could be evaluated / prioritized according to each criteria separately. (User stories that greatly correspond to the needs of the pilots (policy makers), most feasible ideas, ideas that have the most potential for increasing the effectiveness of public authorities, etc.)

Background material
Please define the background material that you might need for the workshops
Will you need a presentation of the project? Will you need to distribute flyers? Do you need a poster? Other?
Things to consider: • Will you send information regarding the project's and the workshop's objectives along with the invitation?

Connection with the 2nd workshop
Please define the connection of the workshop with the 2nd workshop
Things to consider   • Are the results of the 1st workshop going to feed in the 2nd? How (e.g., further investigation of user stories, etc.)?

Annex 2: Plan for the first co-creation workshop in Athens (DAEM)

Project Acronym:	**AI4PublicPolicy**
Project Title:	Automated, Transparent Citizen-Centric Public Policy Making based on Trusted Artificial Intelligence
Project Number:	101004480
Topic:	**Horizon 2020 Research and Innovation Programme** **DT-GOVERNANCE-12-2019-2020** **Pilot on using the European cloud infrastructure for public administrations**
Type of Action:	**IA - Innovation action**
Start date of the Project:	**March 2021**
Duration of the Project:	**36 months**

Template to be filled for planning the AI4PublicPolicy workshops

(Version 1.0, 28/05/2021)

Detailed plan for the first co-creation workshop

Detailed plan for the 1ˢᵗ co-creation workshop
Partner: DAEM (for the city of Athens)
Scope and objectives of the co-creation workshop
Please define the scope and objective(s) of the workshop and reason your decision You should always keep in mind that the first workshops' overall scope is to review, update and extend the user stories. Do you agree with that? Can you better describe this objective? For defining your objectives, you can consider: • Your user (policy makers, citizens) needs • The local specificities • Your own interests and priorities Can you formulate your objectives as the questions that you are going to ask?   The objective of the first co-creation workshop is to review, update and extend the user stories for the Predictive Citizen-Centric Transport/Parking Policies Development Use Case, through the involvement of key stakeholders involved in this Use Case.
Time plan
Please define the date of implementation for the workshop For defining the date of implementation, please consider the following: • AI4PublicPolicy first two co-creation workshops will be implemented between M4 (June 2021) and M9 (November 2021) of the project. • "D2.6 Plan and report on co-creation activities V1" is due on 31 August 2021. The planning should be ready by that time and every pilot could have run at least one workshop.   Proposed dates for the workshop: **6-9 July 2021** The workshop will have a duration of one day within the timeframe mentioned above.
Venue
Please define the type of venue that you are going to use Things to consider: • Will the first workshops be online? • If not, will you use conventional meeting rooms that will provide the necessary space and infrastructure to ensure the optimal conduct of the workshop?   Due to COVID-19 restrictions, an online workshop is considered. The final decision online VS physical is still pending. In case of a physical meeting, DAEM will provide the venue in their premises in Athens at Serafeio Complex.
Moderator and rest of on-site team
Please define whether you are going to use an external or an internal moderator Things to consider for defining the moderator: • We suggest that you use an experienced moderator to run the workshops, as this can ensure their optimal conduction. • It is suggested that the moderator is engaged early in the planning process and especially during the selection of the co-creation method(s).

The moderator will be Ms Elena Avatangelou, member of the DAEM team, already involved in the AI4PP project. Ms Avatangelou is an experienced facilitator, most appropriate for this role.

Please define the rest of the on-site team

Things to consider for defining the rest of the on-site team:
- Define any extra roles you need for conducting the workshop (assistant, secretary, support staff to take care of catering and other organizational issues, etc.).

Other team members from DAEM are Ms Dimitra Tsakanika and Ms Ilia Christantoni as the main responsible for the EU Projects of DAEM. The whole team mentioned from DAEM is experienced in the organization and moderation of workshops and other events.

Participants

Please define your target number of participants

- How many participants will you involve in the process (from 7 to 25 should be ok)?

We plan to involve 10-12 participants in the workshop.

Please define the groups that you are going to include in the workshop

Possible target groups:
- Policy makers
- Citizens and Citizen groups
- Socially excluded groups (e.g. minorities, elderly etc.)
- Experts in the field of AI and Machine Learning
- Other stakeholders (Social entrepreneurs, businesses etc.)
- Other?
You should include groups of people that will ensure the heterogeneity and commitment of the participants' mixture.

We plan to include stakeholders from the following groups:

- Municipality of Athens officials (2 persons)
- Municipal Police, responsible for monitoring parking processes (2 persons)
- DAEM employees, involved in the existing parking application management (2 persons)
- NOVOVILLE representatives, involved in the existing parking application development (2 persons)
- Citizens (2-4 persons)

The specific people for each category are still to be defined.

Please define your participants' profile

Recommendations for defining participants' profile:
- Selection of people with interest in the subject matter (intrinsic motivation)
- Working experience background
- High level of expertise with the subject matter
- The representative's actual role in the organisation
- Age and gender balance
- Other?
It is suggested that you include people with profiles that ensure the heterogeneity and commitment of the participants' mixture.

We plan to select participants based on their experience and involvement in the parking policies already in operation in Athens.

Citizens will be selected considering age and gender balance (i.e. 2 men, 2 women, 2 under 40 years old, 2 above 40 years old).

Please define the invitation and promotion process

Recommendations for setting up the invitation process / Things to consider:
- How are you going to invite participants? (Personal invitations via email, invitations directly to potential participants, invitations at an organizational level where you will state the number and profile of the desired participants, etc.)
- How long before the workshop will you send the invitations?
- Will you make a reserve list of participants that you will use in case of limited participation?
- What deadline will you set for the confirmation of participation?

After potential participants have been identified, they will be contacted directly via email and phone. The majority of participants are existing collaborators or members of DAEM, so it is expected to be a straightforward process to involve them in the workshop.

Participants will be contacted three weeks before the actual event, the ensure their availability on the specific dates. Their participation should be confirmed at least two weeks before the event, to allow time for reserve stakeholders to be invited if necessary.

DAEM as the main link for services provision to citizens of Athens maintains a network with citizens' groups that are active in the city. Indicative persons will be selected according to the criteria described above and their availability.

Recommendations for the promotional activities:
- Are you planning to publicize the event in relevant places and networks?
- Will you use your organisation's promotion channels? Other?

The event will be publicized in DAEM's website and social media accounts, and in Municipality of Athens premises.

For the event the existing leaflet provided by AI4PP dissemination partner will be used in case it will be held physically. According to time availability, additional material will be prepared e.g. poster or requested from the project. An e-mail invitation will be sent to potential participants.

Structure

Please define the structure that you will follow for the workshop

Will you use the following three phase structure? Will you make any adaptations?
- Introduction (introduction to the project and presentation of the objectives of the workshop; first introduction of participants to each other)
- Core co-creativity phase (the core workshop's phase where the user stories are presented and further developed by utilizing one or more co-creation concepts)
- Evaluation / prioritization of concepts (an initial evaluation / prioritization of the user stories by following a method such as dot voting)

We plan on following the proposed three-phase workshop structure. More specifically:

1. Introduction
   - Introduction to the project and goals of the workshop (15 min)
   - Introduction of participants to each other (30 min)
2. Co-creation
   - Presentation of existing user stories (30 min)
   - Implementation of co-creation activities – Participants will be split in two groups for this purpose (2-3 hours)
3. Evaluation
   - Presentation of the co-creation activities (30 min)
   - Evaluation and finalization of User Stories (30 min)
   - Meeting closure (10 min)

Total estimated workshop duration, incl. breaks: 6 hours

Co-creation methods

Please define the co-creation method(s) that you plan to use during the core co-creativity session

- Brainstorming sessions, World Café, Lego Serious Play, Conceptual Mapping, Problem Tree, storytelling, case studies, etc.
- It is suggested that the co-creation method(s) is selected in collaboration with the moderator of the workshop, or that you select a moderator experienced with the method that you are going to use.

The following co-creation methods will be used:

- Customer Journey Map development and identification of pain points. One team will focus on the citizen journey, while the other will focus on the city employee journey.
- Silent-solo brainstorming
- 10-by-10 brainstorming

Given the short duration of the workshop and the participants' profile and experience in co-creation workshops, we plan on using simple yet engaging brainstorming methods that do not require much time to be implemented.

Evaluation & Prioritization criteria

Please define the assessment criteria that you will use to evaluate the user stories

Recommendations about possible assessment criteria:
- Feasibility
- Correspondence with user needs
- Other?

The user stories could be assessed in total or they could be evaluated / prioritized according to each criteria separately. (User stories that greatly correspond to the needs of the pilots (policy makers), most feasible ideas, ideas that have the most potential for increasing the effectiveness of public authorities, etc.)

User stories will be evaluated initially using the dot-voting method. After all user stories are ranked, they will be evaluated based on priority on a two-dimensional axis in terms of Feasibility and Impact. This will result in a prioritization of user stories to be implemented within the project.

Background material

Please define the background material that you might need for the workshops

Will you need a presentation of the project? Will you need to distribute flyers? Do you need a poster? Other?

Things to consider:
- Will you send information regarding the project's and the workshop's objectives along with the invitation?

As background material we will use:

- a presentation of the project
- a live demo of the existing application for parking management
- a presentation of the existing user stories

We will not share detailed information prior to the meeting.

A project brochure would be useful for the invitation process, which is already available both as a file and printed by DAEM.

Connection with the 2nd workshop

Please define the connection of the workshop with the 2nd workshop

Things to consider

- Are the results of the 1st workshop going to feed in the 2nd? How (e.g., further investigation of user stories, etc.)?

During the 2nd workshop DAEM's second Use Case scenario on Maintenance Process Optimization will be discussed with relevant stakeholders.

Annex 3: Consent forms

AI4PublicPolicy Co-creation Workshop Consent Form

Pilot name:

Workshop number:

Information sheet

Introduction

Please read the information below carefully before you decide to take part in the AI4PublicPolicy co-creation workshop. This consent form provides you information regarding the Project, the related co-creation workshops and your participation in the workshop. Please feel free to ask any additional questions you might have. If you decide to proceed and participate, you will be asked to sign this consent form.

About the Project

AI4PublicPolicy is a Project consisting of policymakers and Cloud/AI experts to unveil AI's potential for automated, transparent and citizen-centric development of public policies. The AI4PublicPolicy co-creation workshops are conducted as part of the AI4PublicPolicy project that is funded by the European Union's Horizon 2020 Research & Innovation programme under Grant Agreement No. 101004480 (hereinafter to be referred to as: 'Project'), with the coordination of ViLabs Ltd. as partner of the AI4PublicPolicy Consortium and under the responsibility of XXX as partner of the AI4PublicPolicy Consortium. For further information about the Project, please visit the website at: https://ai4publicpolicy.eu.

Purpose of the co-creation workshops

In AI4PublicPolicy, co-creation workshops are a step towards the solution of an identified problem within the Project. The co-creation workshops are organised by the pilot partners part of the Project to drive the implementation of the Project's policy development technologies and tools.

The focus of the co-creation workshop is to brainstorm and gather feedback from the end-users in order to define user stories or requirements for the AI4PublicPolicy platform. The user stories will be used by the AI4PublicPolicy Consortium to elicit, collect, and analyse requirements regarding safe, secure, and citizen-centred AI applications in policy development environments. You may ask the organising pilot partner for any further information about this co-creation workshop.

Participation

You have been approached to participate in this co-creation workshop because you are either a policy maker, a local actor, a citizen, a social entrepreneur or a business and interested in the Project results. Your participation is completely voluntary and you may change your mind at any moment, without any consequence or prejudice for you.

There are no personal benefits provided for your participation in this co-creation workshop. The intent of your participation is to help us to learn more about the end-user needs and perspective. No risks are foreseen for participation.

Procedure/Description of the workshop

If you decide to participate, you will be asked to join the workshop either physically (to an appropriate meeting room) or virtually through an online platform. In case of a physical workshop, the organizers will take some photos and might video record the workshop after you provided your consent. In case of a virtual workshop, the organizers will take some screenshots and the online session will be recorded.

Before the co-creation workshop you will be provided with a set of guidelines by the organizers on how you can contribute to the co-creation workshop. At any point, you may contact the organising pilot partner in charge to inquire any additional information, pose questions or withdraw your participation.

Data and Confidentiality

We will collect and process the following personal data from you: (i) your name and surname, (ii) your e-mail address, (iii) your organisation's name, and (iv) your role in the organisation, in order to

contact you about the workshop, the Project and its related results. Your data will be stored and processed in accordance with the General Data Protection Regulation (GDPR).

Photos or screenshots that will be taken during the co-creation workshops will be used as dissemination materials for the Project and will be published on the Project's website or social media channels.

The recordings of the online co-creation workshops will be encrypted and stored on a cloud-based platform accessible only by the Project partners for the duration of the Project and thereafter deleted.

The reports of the co-creation workshops will be used to aggregate results for the Project and will be shared only internally among the AI4PublicPolicy Project consortium. All the collected information will be anonymized or pseudonymised in the workshop reports and the related public project deliverables, and any personal data will be treated as confidential by the AI4PublicPolicy consortium.

Right to Refuse or Withdraw

You may withdraw from participating in the co-creation workshops and the processing of your personal data at any time, without the need of justification. You can simply contact the person that invited you and inform him/her about this decision.

Who to Contact

Should you have any concern or complaint, contact us at info@ai4publicpolicy.eu. We will attend to your enquiry as soon as possible and at least within a time period not exceeding one month.

Participant's statement of Informed Consent

Please tick the box(es) if you agree with the following statement(s):	
I have read and understood the foregoing information sheet (dated __/__/___) and have had the opportunity to ask questions about the co-creation workshop.	☐
I understand that my participation is voluntary and give voluntarily consent to be a participant in this workshop and to process my personal data in line with GDPR.	☐
I agree that my contribution will be used as part of the AI4PublicPolicy Project.	☐
I give consent to the AI4PublicPolicy consortium to publish, republish, or otherwise transmit still and moving images and audio for the purposes of: • Publicity and promotional materials of the Project; • Presentation and exhibition materials; • Website, social media channels and digital communications materials of AI4PublicPolicy Project. The images that have not been used will be deleted after 2 years, and the audio fragments after the end of the Project.	☐
I know I have the right to withdraw my consent, without the need to provide any justification for it.	☐

First and last name of Participant _____

Signature of Participant _____

Date _____

Annex 4: Template for reporting the AI4PublicPolicy workshops

Project Acronym:	**AI4PublicPolicy**
Project Title:	Automated, Transparent Citizen-Centric Public Policy Making based on Trusted Artificial Intelligence
Project Number:	101004480
Topic:	**Horizon 2020 Research and Innovation Programme** **DT-GOVERNANCE-12-2019-2020** **Pilot on using the European cloud infrastructure for public administrations**
Type of Action:	**IA - Innovation action**
Start date of the Project:	**March 2021**
Duration of the Project:	**36 months**

Template to be filled for reporting the AI4PublicPolicy workshops

(Version 1.0, 28/05/2021)

Introduction

A part that will state the time and place of the workshop's implementation, its objectives and a brief summary of its structure, proceedings and overall success in achieving its goals. You can include one photo (screenshot or group photo).

The workshop's agenda

Presentation of the workshop's agenda with a brief description of its main parts.

The workshop's participants

Description of the participant groups, participant profile, invitation criteria and a full list of participants along with relevant information (name, contact details, stakeholder group, etc.).

Description of workshop's sessions, discussions, outcomes

A detailed description of **the overall structure of each workshop** phase including:

- A description of the on-site team (moderator and the rest of the on-site team along with their roles)
- A description of the process that was followed / of the structure of the workshop

In addition, a detailed description of each session should be included (introduction, main co-creation phase, evaluation phase, a possible final wrap up session)

- the people in charge of each session, exercise, presentation, etc.
- the methods used and how they were used
- the main remarks of each session
- the main outcomes of each session.

User stories generated

A brief description of the user stories along with their evaluation.

Co-creation workshop's assessment

Here you should include the results from the evaluation of the workshop's main aspects. This evaluation will be made through the assessment questionnaires that you will distribute at the end of each workshop. The questionnaires will be prepared by VILABS and will be sent to you.

Conclusions

Conclusions and possible next steps (e.g. organisation of the second workshop, utilization of the co-created concepts within your organisation, etc.)

Annexes

- Photos of the workshops
- Consent forms (will be prepared by VILABS and distributed to you)
- any other background material / document that should be included

Annex 5: Co-creation workshop's assessment questionnaire

Co-creation workshops assessment questionnaire

(Version 1.0, 01/07/2021)

I. Overall evaluation	Please mark your answer			
	Excellent **Very satisfied**	**Good** **Satisfied**	**Fair** **Quite satisfied**	**Insufficient** **Not satisfied**
How satisfied are you with the workshop?				
II. Detailed evaluation	**Please mark your answer**			
	Excellent **Very satisfied**	**Good** **Satisfied**	**Fair** **Quite satisfied**	**Insufficient** **Not satisfied**
Pre event organisation				
Did you receive the invitation in good time?				
Did the invitation offer a clear picture of what the workshop is about?				
Objectives				
Were the objectives of the workshop clear?				
Did the workshop meet its objectives?				
How well did the workshop correspond to your expectations?				
How would you rate the following?				
Quality of presentations				
Quality of moderation and of the rest of the team				
Structure and overall design of the workshop				
Level of interaction among participants				
Quality of the emerged user stories				
Logistical aspects (only for face-to-face workshops)				
On-site organisation and support				
Venue's facilities				
Did the venue offer an environment that supports creativity?				
III. Comments				
1. What did you most appreciate during the workshop?				
2. What did you least appreciate during the workshop? How can we improve?				
3. Additional comments				

Annex 6: Methods and tools for the introduction phase

Presumably after the short introduction in the workshop's schedule, activities, and goals, an ice-breaker will follow that will be used in order to introduce participants to each other. In fact, co-creation workshops can suffer if participants feel they have not had time to build a rapport with the rest of the group. Such an exercise is intended to help a group to begin the process of forming themselves into a team. Icebreakers are commonly presented as a game to "warm up" the group by helping the members to get to know each other. Some "ice-breakers" for the introduction are presented here.

1. <u>**Standard personal introductions**</u> (30 seconds to 1 minute per person)

Each person gives their name, where they are from and one other fact about themselves. This third fact could be freely chosen by each individual or the moderator could suggest a theme (e.g., what kind of food they like, why they are at the meeting, something good that happened in the last week).

A display board can be prepared with information that participants will need to know; for example, name, age, where they are from, marital status, occupation, hobbies, dreams, favorite book, favorite music, etc. Each participant will write down their details in the grid on entering the room. Afterwards, each participant reads out his/her personal details to the rest of the room. This display board remains visible throughout the whole workshop.

The purpose of this ice-breaker is to start the workshop and for everybody to get to know one another. With defined criteria you can ensure that everyone gives and receives the same basic information.

Materials needed
Display board, flipchart and marker pens.

2. <u>**Pair introductions / Interviews**</u> (Interviews 4 minutes; 30 seconds to 1 minute for each presentation; 20-30 participants)

Ask people to pair up with people they do not know or know less well. One person interviews the other for 2 minutes, then roles are swapped. Questions can include the reasons why the person is there and what they are hoping to learn or achieve during the event. When the whole group reforms the pairs introduce each other, giving as much detail as they can remember. The moderator could also suggest specific themes to be included in the interview.

The rationale behind this is to "stir" the group and make sure there is adequate interconnectedness between the researchers in different projects. Furthermore, as opposed to the individual introductions, this provides a stronger (more personal) connection and deeper understanding between the participants.

Materials needed

Paper sheets and pens for taking down notes.

3. <u>**The ball of string**</u> (10-25 participants; 30-40 minutes):

This is an exercise that helps participants to introduce themselves and learn the names of the other members of the group. It also displays the interconnections that are built within a co-creation workshop.

Participants form a circle. The moderator takes a ball of string or wool, holds onto the end of string and says his or her name and without letting go of the string, throws the ball to another person in the circle. The person who catches the ball says his or her name, holds onto the string and then throws the ball to another participant. This sequence is repeated until everybody in the circle is holding onto part of the string and a web has been formed. Once the web is formed, there can be a period of reflection to consider the implications of the collective task. The person who ended up with the ball of string passes it back to the person who threw it calling that person's name and so on so that the web is unraveled and the ball of string ends up complete again in the hands of the moderator.

Materials needed

A ball of string or wool.

4. **People bingo** (10-20 minutes; 20-40 participants)

A flexible and gentle icebreaker. The moderator has written down a list of questions that he/she likes each person in the group to find answers to from other people in the group. The question can be specific to the session or generic, e.g. "How are you feeling today?". It is useful for everyone to have questions on a sheet of paper to carry around and fill in answers as they get them. Each person should only ask one question to one person then find somebody else to introduce themselves to and ask another question. When they have found answers to all their questions they shout bingo and have finished. Ten questions get people well mixed and a lot of information shared.

Materials needed

Paper sheets, pens.

Annex 7: Methods and tools for the core creativity session

Hereby, we present some methods and tools for the core co-creativity sessions that are commonly used in co-creation workshops.

1. <u>Brainstorming</u> (15-45 minutes; 5-25 participants)

A tool for sparking creative thinking and helping to quickly gather a large number of ideas. Begin by stating the issue to be brainstormed. Ask people to call out all their ideas as fast as possible – without censoring them. All ideas are welcome as they can help people to be inspired by each other.

Its purpose is to quickly gain relevant and varied information in the group as a whole or in smaller groups. The aim is to gather all the ideas together. Generally, it is used when collective ideas regarding the perceptions and reactions of the participants are required about a particular subject.

When you start a brainstorming session clearly state the objectives of the session to all participants. Allow everyone time to write down some ideas (silent brainstorming) before beginning the process. Allow each person to express an idea or thought and ensure that a scribe or recorder is capturing the information on a flipchart. The discussion on each idea should be minimized, but try to encourage others to build on stated ideas. When using the technique of brainstorming set a time limit, have participants offer ideas when it's their turn, any idea is acceptable, have participants say "pass" if they don't have an idea, and never criticize, question, or even praise other's ideas.

How is it used?

- ✓ The theme is decided upon and presented and the main question is written up so that it is on view throughout the exercise.
- ✓ The rules of the game are explained.
  - All ideas are accepted, no matter how silly or irrational they might seem.
  - No criticism is allowed of any idea put forward.
  - Each person can put forward as many ideas as they wish, the more the better.
- ✓ A timescale is set for the brainstorming session.
- ✓ One or two people are given the task of noting the ideas down on a flipchart or board – in clear writing that is big enough to be legible – so they will be visible to the group as a whole. There are no restrictions on any contribution, so participants can be creative and produce unusual and innovative ideas.
- ✓ When the time limit is up, ideas are analysed and conclusions made.
- ✓ The display board can be used as a resource to initiate the use of other planning tools.

According to a variation of the brainstorming, each participant is given a pen and cards. As soon as they have put forward their idea, they write it down on a card and fix it onto the display board themselves. Subsequently, small groups can be formed that choose a few ideas from all those on the board and discuss how these proposals can be put into practice.

Recommendations

- ✓ Participants need to feel free to express their opinions, thus requiring an open, informal and positive atmosphere. All participants must comply with the rules of the game and avoid any type of action that inhibits the spontaneity of the group members.
- ✓ To avoid more than one person talking at the same time, the facilitator can have participants take turns to make their contribution; this reduces the risk of losing valuable ideas or opinions and allows shy members of the group to participate.
- ✓ Participants will need time to warm up and become enthusiastic in expressing new and unusual ideas.

✓ If the flow of ideas begins to dry up, it is important to carry on. Usually, it is from this point that really new and innovative ideas are produced.

Materials needed

Flip chart, pens and cards.

2. **World Café** (Multiple consecutive sessions of 20-30 minutes each - From few hours event to a one day long workshop; groups larger than 10 - groups of even 1200 participants have been conducted)

The World Café is a creative process for facilitating collaborative dialogue and the sharing of knowledge and ideas to create a living network of conversation and action. This method is largely used, as it allows much interaction and the exchange of ideas among participants in a relatively short time. In this process a café ambiance is created, in which participants discuss a question or issue in small groups around the café tables. At regular intervals the participants move to a new table. One table host remains and summarises the previous conversation to the new table guests. After some rounds of discussion the groups have mixed several times and there has been a great deal of knowledge transfer and idea generation. Thus, the proceeding conversations are cross-fertilised with the ideas generated in former conversations with other participants. At the end of the process the main ideas are summarised in a plenary session and follow-up possibilities are discussed.
The World Café method is used:

✓ When you want to generate input, share knowledge, stimulate innovative thinking and explore action possibilities around real-life issues and questions.
✓ To engage people in authentic conversation – whether they are meeting for the first time or have established relationships with each other.
✓ To conduct in-depth exploration of key strategic challenges or opportunities.
✓ To deepen relationships and mutual ownership of outcomes in an existing group.
✓ To create meaningful interaction between a speaker and the audience.
✓ When you have limited amount of time.

How is it used?

✓ In the Café event the participants explore an issue by discussing and drawing on the tablecloths, for multiple consecutive sessions of 20-30 minutes.
✓ Participants will work in groups of 4-6 people.
✓ One of the participants will be chosen as the host/hostess of the table.
✓ Participants change tables after each session in order to 'cross-fertilize' their discussions with the ideas generated at other tables.
✓ After several minutes all participants at each table go to join another group, except for one participant who remains to brief the next group on what the last group has discussed. The participants that leave their table carry key ideas, themes and questions into their new conversations.
✓ By providing opportunities for people to move in several rounds of conversation, ideas, questions, and themes begin to link and connect. At the end of the second or third round, all of the tables or conversation clusters in the room will be cross-pollinated with insights from prior conversations.
✓ Each round is prefaced with a question specially crafted for the specific context and desired purpose of the World Café. The same questions can be used for more than one round, or they can be built upon each other to focus the conversation or guide its direction.

- ✓ After three or more rounds, the whole group gathers to share and explore emerging insights and concepts, which are captured on flipcharts or by other means that make the collective intelligence of the whole group visible to everyone so that they can reflect on what is emerging in the room. At this point the Café may end or further rounds may begin of conversational exploration and inquiry.
- ✓ The event is concluded with a plenary, where the key ideas and conclusions are established. The results of the World Café rounds are reflected visually in a variety of ways, most often using graphic recording in the front of the room.

Figure 7: World Cafe Method

Figure 8: Flipchart paper for covering World Café tables

Recommendations

- ✓ To get the most out of the World Café, think very carefully about the questions you ask. They have to be clear, engaging the participants and build on one another.
- ✓ Once you know what you want to achieve and the amount of time available, you can decide the appropriate number and length of conversation rounds, the most effective use of questions and the most interesting ways to connect and cross-pollinate ideas.
- ✓ Knowledge emerges and creativity thrives in response to compelling questions. Generate questions that are relevant to the actual concerns of the participants. People engage deeply when they feel they are contributing their ideas to questions that are important to them. Powerful questions that 'travel well' help attract collective energy, insight and action as they move throughout a system.
- ✓ A powerful question is: simple and clear, thought provoking, opens new responsibilities, surfaces unconscious assumptions.
- ✓ Experienced Café hosts recommend posing open-ended questions – the kind that do not have 'yes' or 'no' answers.
- ✓ Clearly explain how the logistics of the Café work, including the role of the table host.
- ✓ Remind people to note key ideas, doodle and draw thoughts, ideas and questions on the flipcharts that are used as tablecloths.

✓ The basic process is simple and simple to learn, but complexities and nuances of context, numbers, question crafting and purpose can make it optimal to bring in an experienced moderator to help.
✓ However, neither the overall Café Host, nor the individual table host is actually a moderator in the traditional sense, since World Café conversations are largely self-managing and self-organizing.

Material needed

✓ Tables for 4-6 people each, with chairs;
✓ Flipchart paper or paper placemats for covering the café tables;
✓ 4-5 multi-coloured markers per table;
✓ Flat wall space or rolling white boards for posting the flipchart papers and making collective knowledge visible to all.

3. **Lego Serious Play** (A Lego Serious Play workshop typically takes at least one day. At its shortest it takes three or four hours but leaving out important sessions of the method seriously compromises the quality of the results; Participants must be divided in small groups; groups of more than eight people tend to be too big)

The Lego Serious Play (LSP) methodology offers a sophisticated means for a group to share ideas, assumptions and understandings, to engage in rich dialogue and discussion and to work out meaningful solutions to real problems. Lego Serious Play is a facilitated workshop, where participants are asked different questions in relation to an ongoing project, task or strategy. The participants answer these questions by building symbolic and metaphorical models of their insights in LEGO bricks and present these to each other. It is a method that enables constructive reflection and dialogue processes. During a structured process, participants use LEGO bricks to create models that express their thoughts, reflections and ideas. In Lego Serious Play, everyone builds, and everyone discusses. This gives the more 'junior' or less vocal members of a group, the chance to participate in the co-creation process.

Lego Serious Play is a method that can be used in a wide range of contexts. However, it is more appropriate in some situations than in others. Therefore, it is best suited for:

✓ Stimulating creative thinking and transforming ideas into concrete user stories;
✓ Having effective and constructive discussions where everybody is heard;
✓ Understanding each other's points of view on a deeper level;
✓ Strategy development, where all relevant individuals get the opportunity to contribute their vision of the aims and challenges, and consolidate these with the ideas of others;
✓ Working out the best solution to a shared problem;
✓ Creating a shared mindset about something.

How is it used?

✓ First of all participants must become familiarized with the process of creating and explaining metaphors using the bricks.
✓ Lego Serious Play sessions have 4 core phases.
✓ In the first phase and once the participants have become comfortable with the basic building skills and concepts, the moderator poses a question that represents a building challenge to the participants.

- ✓ In the second phase, the participants build a LEGO model representing their reflections on the question. While building their models, participants assign a meaning to them and develop a story covering the meaning.
- ✓ In the third phase the participants share the meaning and the story that they have assigned to their model with each other and listen to the stories of other participants.
- ✓ In the fourth phase the moderator encourages participants to reflect on what they have heard and seen in the models.

Figure 9: Lego Serious Play Method

Recommendations

- ✓ It requires a skilled and experienced moderator.
- ✓ The questions / challenges that are posed to the participants must be open-ended and have no obvious or correct solution.
- ✓ No one in the group has the answer to the challenge and, therefore, LSP is all about participants expressing themselves and listening to each other. This means that there is no right answer to any question.

Materials needed

- ✓ Lego Serious Play kit;
- ✓ Flipcharts;
- ✓ Boards for posting participants ideas.

4. **Role-playing** (5-30 participants/3-8 in the play; 15 minutes to 3 hours for introducing the exercise, presenting the role play and evaluating it)

One of the most common methods of co-creation workshops is role-playing. The main goal of role-playing is to make an idea or a scenario, tangible enough to elicit a response from the workshop's participants. It helps to understand a subject in more depth, because participants reconstruct or act out real or fictitious situations and it also encourages creativity. The enactment is helpful in developing awareness at individual and group levels. Through role play it becomes easier to discuss complex social issues in a non-threatening environment.

How is it used?

- ✓ Select the idea or scenario you want examine and state why.
- ✓ A situation that represents the theme in question is prepared.
- ✓ Instructions are produced for the different roles in the situation – characters with specific functions, pre-determined behaviours, reactions and positions.

- ✓ The situation that will be acted out is presented to all those taking part in the workshop. The instructions and general information about the task are handed out.
- ✓ Each actor is asked to play their part in the most realistic way possible and according to the particular instructions they received. The rest of the group makes up the audience and is asked to carefully observe and make notes on the behaviour, reactions and arguments of the different characters.
- ✓ When the play is over, the situation is evaluated from the notes made by the audience regarding the attitudes, ways of thinking and reactions of each character.

Recommendations

- ✓ A simple role play is the best.
- ✓ The facilitator stops the simulation or roleplay when enough issues have been uncovered, exercise comes to a natural end or people want to stop.
- ✓ Ask participants to volunteer– never force people to play a role they're uncomfortable with.
- ✓ Give participants a few minutes to get into their roles.
- ✓ Ask everyone who is not playing to be active observers.
- ✓ After any roleplay it's important to provide participants with the chance to de-role, that is to come out of their role and leave any strong emotions behind.
- ✓ After the role play start by asking the players how they felt in their roles. Ask observers for their impressions and then allow discussion.

Materials needed

- ✓ Any documentation relating to the role play (information and instructions);
- ✓ Enough unobstructed space;
- ✓ Any materials required for the role-play;
- ✓ Material for the audience to keep notes.

5. **Conceptual mapping** (it can be done individually or in groups; its duration depends on the complexity of the subject)

The conceptual map is used to visually demonstrate the thought process on a chosen subject. It is used to record ideas and the routes of associations that arise from the group task. Conceptual mapping is a means of brainstorming and organizing thoughts in a better understood way. It facilitates the visual demonstration of brainstorming. It is used to stimulate the generation of ideas and it also allows the creative process to be written up and made available for all to view. As a method, it is a useful way of exploring participants' knowledge, perceptions and experience about a specific subject.

How is it used?

Conceptual mapping is a technique used to visualise a thought process.

- ✓ The map is a schematic drawing with multiple branches.
- ✓ It has a central theme that acts as a starting point, written in the middle, which is the idea that you want to expand or the problem you want to solve.
- ✓ Branches inspired by associations made by participants sprout from the centre.
- ✓ The braches comprise a key image or a keyword.

- ✓ Topics of lesser importance are represented as twigs of the relevant branch.
- ✓ Each branch can lead to a flow of new ideas, which are written down as key words, symbols or pictures.
- ✓ As topics and sub-topics emerge, additional associations are made between ideas that aren't necessarily grouped together. These relationships will be noted by using additional lines and arrows.
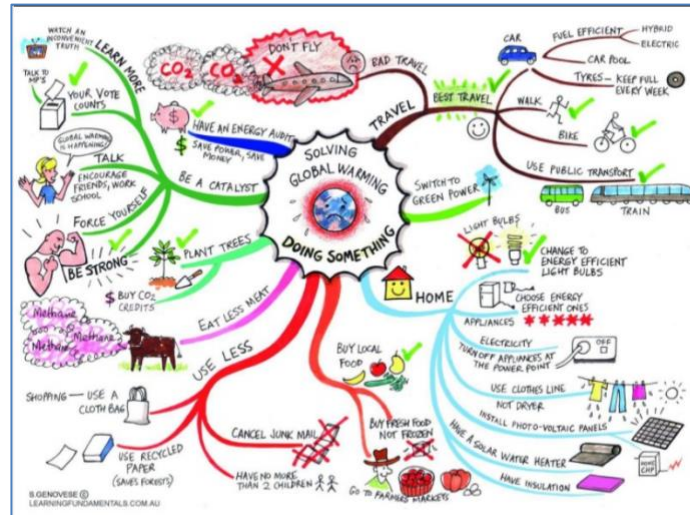

Figure 10: Conceptual Mapping Method

Recommendations

- ✓ Better results can be achieved if you practice conceptual mapping before using it in a workshop.
- ✓ Preconceived limitations must be set aside.

Materials needed

Flipchart and different colored pens if working in groups; when working individually, one sheet of paper and pencils.

6. **Case studies** (10 – 25 participants divided into groups of 4-5; 1 hour up to one full working day)

In the case study method, the group gets an opportunity to look at others' experiences in the form of a case. The participants reflect upon and analyze these experiences to derive new ideas. The participants' own experiences, values, feelings form the basis for analysis of others' experiences.

Among the reasons for using the case study method is the fact that it helps to convey complex theoretical concepts in a simple way. It makes the group to reflect on its own situation in the context of others' experiences and gives a chance to discuss complex situations. This exercise exposes the participants to situations they might not ordinarily experience in their own lives.

How to use it?

- ✓ Choose a scenario related to the workshop's subject.
- ✓ Materials should be prepared in a way that allows participants to:
  - See the relevance to the subject of the workshop
  - See the complexity of the situation

- Understand the dynamics of the specific process
- Understand the motives, actions and reactions of those involved

✓ Present the case study to the participants in full session; give clear instructions to analyse the chosen scenario and seek possible solutions.

✓ Participants work on the case in groups. All groups can either begin using the same approach or different groups can look from different perspectives.

✓ All groups present their results visually to the other groups so that they serve as a basis for evaluating the case.

✓ The whole group draws up conclusions to the results that have been presented.

Recommendations

✓ Instructions given to participants should be clear and enough time should be allocated to the task for it to be carried out effectively.

✓ The case study should not be too general but focus on the specific topic of the workshop.

Materials used

A display board, multi-coloured pens, post-it notes, flipchart papers.

7. **Open Space Technology** (from 10 participants to groups of any size; 3 hours up to 3 days period)

Open Space Technology (OST) was created after observing that in traditional conferences participants best enjoy the coffee breaks - the parts conference organizers/facilitators have nothing to do with. OST was designed as a method for organizing a meeting / workshop where participants create their own program of work sessions. In these concurrent sessions participants explore issues that interest them most. OST encourages co-creation and self-organization and it allows diverse people to address complex issues. Participants are asked to define a possible common working agenda and a series of topics of work around a specific issue to be discussed.

The process is usually guided by a facilitator who also introduces the rules of the technique. Workshop sessions in the chosen issues are self-managed by the participants within a framework of simple principles and democratic 'laws'. Each workshop session creates required list of actions and who should take them. Then session groups report back to the wider public.

How to use it?

✓ Conference organizers introduce OST and invite participants to raise a topic if they wish.

✓ Each participant who raises a topic, writes the title of this session on a poster, a sheet of paper or a large Post-It note, says a few words about the session, and posts it on the wall for all to see.

✓ When all issues have been identified and posted, participants sign up and attend those individual sessions.

✓ Sessions typically last for 1.5 hours; the whole gathering usually lasts from a half day up to about two days (or five days if the stakes are high)

✓ In case of limited participation in a topic, the participants can join another related topic or drop the topic altogether.

✓ After the opening and agenda creation, the individual groups go to work. The attendees organize each session as they go—in other words, are free to decide which session they want to attend, and may switch to another one at any time.

✓ After the opening briefing, the facilitator typically remains largely in the background. However, the role of the facilitator in the Open Space is very important as it has to create the right atmosphere to engage all participants into the common working space and make sure that all the principles and rules are respected.
✓ After the completion of the sessions the group gets together to share what has been generated.

Recommendations

The Open Space method must be based on the following principles:

✓ Whoever comes is the right people: this alerts the participants that attendees of a session class as "right" simply because they care to attend.
✓ Whenever it starts is the right time: clarifies the lack of any given schedule or structure and emphasizes creativity and innovation.
✓ Whatever happens is the only thing that could have happened.
✓ When it's over, it's over: encourages the participants not to waste time, but to move on to something else when the fruitful discussion ends.

Materials used

Flipcharts, post-it notes, markers, paper sheets.

8. 66 Phillips (more than 18 participants; at least 45 minutes)

The Phillips 66 method was developed for the purpose of getting more involvement (questions, ideas, or opinions) from a large group. Furthermore, it was developed in order to attempt to overcome some of the reasons that people are reluctant to express themselves in group situations. The Phillips 66 method is a group discussion technique which is used to help overcome the problem of silence in group situations and to ensure that everyone gets a chance to contribute to the discussion.

It is used when you wish to know suggestions, opinions or information from a large group of people in a short space of time, ensuring maximum participation. It is used to gather information without debate because opinions are collected but not discussed. In order to effectively do this, the audience is divided into small groups of six people each and after some discussion, these groups present their results.

Typically, Phillips 66 is used to:

✓ To start a problem-solving effort by involving a great number of people to discuss the issues involved and present potential solutions.
✓ To generate a large number of ideas from a large group or audience.
✓ To collect and evaluate several sets of ideas generated by a few loosely assembled small groups.

How to use it?

✓ An explanation of the task and the ultimate objective should be given to participants.
✓ A subject and a question are formulated to which the groups will have to respond.
✓ Participants divide into groups of 6 people. Each group chooses: a coordinator whose job is to remind the rest of the group about the time limit and allow each member of the group to put forward their ideas; a secretary who takes notes and writes down any conclusions to present to the others in the workshop.

- ✓ Groups have 6 minutes to respond to a question. Then the group discusses what has been put forward, identifies, analyzes, causes, develops and plans possible solutions. The conclusion is drafted and written up by the secretary. The groups then report back to the larger group with a proposed solution.
- ✓ All members of the workshop join together and the secretary from each group briefly (one minute for each secretary) explains their group's conclusions (mentioning any differences of opinion, if there were any).
- ✓ The secretaries' presentations are summarised on a display board.
- ✓ A general conclusion is reached.

Recommendations

- ✓ The question asked at the beginning of the task should produce a list of answers: for example: What factors influence…, Mention the causes of…, etc.
- ✓ Groups can be given up to 15 minutes instead of 6; but if more time is given, there is a risk that a debate will start, instead of gathering new opinions and information which is the main objective of this method.

Materials needed

Flipchart or display board, pens, paper sheets, enough space for each group to discuss the subject without disturbing other groups.

9. **Problem trees** (5-25 participants; between 1 and 3 hours depending on the complexity of the problem)

Problem trees are used when a complex problem whose causes and consequences lead to confusion, needs to be analysed. This method shows a problem from its causes through to its consequences and understand which aspects of the problem should be tackled to achieve significant change.

A problem tree involves writing causes in a negative form (e.g., lack of space, not enough money, etc.). Reversing the problem tree, by replacing negative statements with positive ones, creates a **solution tree** (sometimes called objectives tree). By rephrasing each of the problems into positive desirable outcomes - as if the problem had already been treated- the root causes and consequences are turned into root solutions, and key project or influencing entry points are quickly established. A solution tree identifies means-end relationships as opposed to cause-effects. This provides an overview of the range of projects or interventions that need to occur to solve the core problem.

A problem tree analysis:

- ✓ Helps the planning of a project;
- ✓ Provides a guide as to the complexity of a problem by identifying the multiple causes;
- ✓ Identifies particular lines of intervention and other factors that may need to be tackled with complementary actions;
- ✓ Provides an outline of the project plan, including the activities that need to be undertaken, the goal and the outcomes of the project.

How to use it?

- ✓ Clearly formulate the problem or problems you want to analyse and write them on cards.

- ✓ Problem tree analysis is best carried out in a small focus group of about six to eight people using flip chart paper or an overhead transparency.
- ✓ A central problem is identified and placed in the middle of the tree.
- ✓ Participants are encouraged to identify the causes of the central problem, or from which it stems. These causes are written on cards and the cards are placed on the roots of the tree.
- ✓ Once the causes or roots of the problem have been established, the negative effects of the central problem are identified and organised. Their corresponding cards are placed on the branches of the tree.
- ✓ When the task has been completed, the drawing is analysed and a discussion is encouraged to establish whether the organisation of the cards corresponds effectively to the causes and consequences.

The heart of the exercise is the discussion, debate and dialogue that is generated as factors are arranged and re-arranged, often forming sub-dividing roots and branches (like a conceptual map). Participants should be given time to explain their feelings and reasoning, and record related ideas and points that come up on separate flip chart paper under titles such as solutions, concerns and decisions.
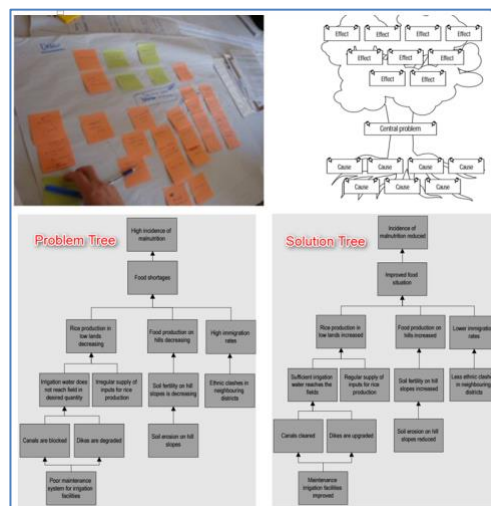

Figure 11: Problem Trees Method

Figure 12: Problem Trees - Solution Trees example

Materials needed

Cards, post-it notes, paper sheets, marker pens, display board, flipchart.

Annex 8: Methods and tools for the evaluation stage

During the evaluation stage of the co-creation workshop, the generated ideas are checked and evaluated with regard to their feasibility and potential. Some methods for evaluating the developed ideas within a co-creation workshop are offered here.

1. **Two dimension axis**

During this method, participants will place the co-created user stories on a two-dimensional axis that will represent their feasibility and their potential (focused on user needs). Through an open discussion and after participants have reached consensus they will place each concept on the two dimensional axis. This tool would also enable the visualization of the user stories in terms of feasibility and potential, thus, making it easier to identify the most promising user stories.

Materials needed

Display board, flipchart, marker pens, post-it notes.

2. **Predefined number of stickers or dots** (10-20 minutes; up to 50 participants)

Dot voting is one of the simplest ways to prioritize and converge upon an agreed solution. Each participant is allocated a number of stickers or dots (1-6 is the usual number). All the co-created ideas are listed on a display board/flipchart. Participants are then asked to cast their votes by sticking their stickers or making their dots by the item/idea that they consider to be the most important. If they have multiple dots/stickers they can have the choice of spending them all in one concept if they feel strongly about it or spreading them across a number of choices. Once all the votes are cast, a list of the items by their new rank is made. In some cases, it may be useful to reflect on ideas that didn't receive votes to verify that they haven't been left behind without cause.

Materials needed

Display board, flipchart, marker pens, stickers.

3. **2-4-8 consensus** (1-3 hours; 8-40 people)

This exercise will take time, but will help a group reach a decision that everyone can live with. Probably not suitable for every kind of workshop, but useful for the really important discussions. It's usually best to impose tight time limits at every stage of this discussion or else it can easily consume too much time. The procedure of the method is the following:

- ✓ Start in pairs. Each pair discusses the list of options and is asked to agree their top three priorities.
- ✓ Each pair then comes together with another to form a group of four. The two pairs compare their lists of top three priorities and agree on a joint top three.
- ✓ Each group of four comes together with another to form a group of eight. Again, each group takes its two lists of priorities and reduces it to an agreed top three.
- ✓ Repeat until the whole group has come back together. Hopefully three clear priorities have emerged. In the worst case scenario the group has six top priorities and may need to reduce it still further through facilitated discussion or another prioritisation tool.

Materials needed

Paper sheets, pens, flipchart.

4. **6 Thinking hats** (30 minutes - 1 hour; 5-20 people per group)

This tool encourages a group to look at a situation from a new angle. Each 'hat' represents a different way of looking at something. There are a number of ways to do this exercise. For example, individuals within the group can wear different hats whilst the group discuss an issue. Another alternative is that everyone in the group can try on one of the 'thinking hats' for a while, then everyone can put on another one. The roles the 'hats' bring give you a chance to thoroughly examine every option and to prioritise or choose the best concept(s).

- ✓ White hat: White hatted people concentrate on the facts – what information and knowledge do you know about the situation? What can you learn about the situation from this information? What info is missing? Can you plug the gap?
- ✓ Green hat: Green hat people think creatively in a no criticism, freeform thinking kind of way
- ✓ Red hat: Red hats are the emotional input of the discussion. They allow themselves to be intuitive and act as much on hunches as fact.
- ✓ Black hat: Black hats think pessimistically. They look for the flaws and find the obstacles in the plan.
- ✓ Yellow hat: Yellow hats think positively looking for the value in every possibility.
- ✓ Blue hat: The blue hat is worn by the facilitator(s). They concentrate on process, calling on the other hats to add in their thinking as and when it's appropriate and making sure that each option is scrutinized from all perspectives. They are neutral, helping the group achieve its task without trying to shape the decision.

This tool actively seeks out the optimistic analysis, the pessimistic analysis etc., so every idea is thoroughly tested on the basis of a creative and thorough process.

5. **Voting system using a Likert scale**

A voting system using a Likert scale can be used. This is a ranking system where the participants grade each concept in terms of feasibility, potential, and correspondence to the identified stakeholders' needs, using a 10 level Likert scale. It is a rather time consuming method but its results will be accepted by everyone.

6. **Ranking** (10-20 minutes; 5-20 people)

This is a great technique for using in small groups. Each option is written on a card or post-it note and each group is given a full set of cards/notes. The groups of participants are asked to rank the options or reduce them to three, within a certain time limit. Having a participant to act as a facilitator in each small group will help. It's also helpful to set out clear criteria at the start – for example:

- ✓ Clearly state the time limit.
- ✓ Clearly state the parameters of the evaluation.