# D2.1 Pilots definition

## InSight & enLIGHT Project

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## Background

The aim of this project is to understand how city planning and policy can work in a participatory manner while integrating private companies, city planners and citizen into decision-making processes. This integration is called “co-production” and the project is dealing with various methods of co-production such as collecting knowledge from the citizen through so-called “association wheel” or involving various stakeholders with different interests and developing compromise solutions with the help of so-called “multi-stakeholder multi-criteria decision analysis”.

Therefore, the aim of this document is to settle methodological framework which will be applied for the pilot definition. This definition will be settled with consideration of the following up analysis of requirements of citizen and stakeholders involved into spatial planning at the urban and national level.

The deliverable describes following elements of participatory governance which should be tested in frames of pilot projects:

- Co-creation methodology
- Stakeholders mapping as a prerequisite of data collection methods in frames of pilots
- Value-based engineering approach which settles a framework for participatory governance decision-support tools
- Two decision support tools to be tested in frames of the pilot projects

Further on, the deliverable provides recommendations on the pilot which should be defined considering the necessity to integrate and to test four above-mentioned elements of participatory governance.

## Introduction: Participatory governance of spatial planning

Governance and participation are gaining a prominent space in the development discourse nowadays. In fact, participation and governance in today's development world go hand on hand and can improve the outcomes of any development endeavour and contribute to good governance, which is the cornerstone of any democratic process. According to the Commission on Global Governance, governance as a sum of the many ways how individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and co-operative action may be taken. The essential elements of sound or good governance are accountability, participation and transparency with the focus on multitude of stakeholders, which covers formal and informal stakeholders and institutions involved into decision-making processes.

While speaking about participatory governance of urban and spatial planning there are multiple ways to design and run a participatory process the need of stakeholders' participation is being increasingly recognized, as expert knowledge can also be limited, particularly in relation to local knowledge on the ground. It also includes socio-political acceptance of new institutional frameworks, for example about how to re-structure decision-making processes towards necessary involvement and participation, as well as institutional shifts in decision-making processes away from top-down governance towards inclusive decision making. There is growing evidence that trust is a key issue in successful deployment of any kind of spatial infrastructure and that participatory governance and co-production methods increase the level of trust. Also, a significantly greater trust is given nowadays to stakeholders and to their knowledge during the decision-making process. There is growing evidence from various countries that it is possible to spatial policies on co-creation processes as policies are understood as explicit and implicit norms, regulations, and expectations that regulate the behaviour of individuals and interactions between them.

International legislation also lays down the right to participate. The Aarhus Convention requires the involvement of stakeholders in decision-making processes on infrastructure projects and on providing clear and transparent information about how to get involved. According to the Universal Declaration of Human Rights, people have the right to participate in decision-making which affects their life (Zillman, 2002).

The involvement of stakeholders into decision-making is a key element in participatory governance (Coelho and Favareto 2006). Participation can contribute to improvement in implementation of outcomes of decision-making, efficiently and quality of the decision-making, itself, and its legitimacy in eyes of stakeholders. Also, participation does not only legitimize decision-making but also to involve local knowledge, to improve policy trust and to avoid delays by resolving conflicts.

However, often there are limits to participation; the fact that spatial planning is a topic heavily dominated by technological and economic content hinders effective public participation. There has been no clear evidence of the efficacy of participatory processes in addressing stakeholders' concerns. More specifically, there are multiple ways to design and run a participatory process, but no clear rules to guide stakeholders in choosing the most effective strategies.

Different views on participatory governance exist. Some argue that complex decision-making processes such as spatial planning, should be left in the hands of experts and scientists. The traditional view was that decisions regarding technical issues should be concentrated in the hands of experts and scientists (Perhac, 1996) or that public participation is reserved as a method for evaluating this decision-making process and its outcomes (Rowe & Frewer, 2000). Others argue that participation is very beneficial because it brings additional knowledge of stakeholders at the national level (Hänlein, 2015), which might otherwise be limited, such as the knowledge of local areas (Jasanoff, 1997). There is also evidence that to integrate views of all stakeholders—and not only those of specialized experts—can enhance the legitimacy of decision-making processes and build trust (Renn, 2008).

Evidence from Europe shows that decision-making processes along the so-called decide-announce-defend (DAD) model, where the decision is taken by the national government, aided by experts and then implemented through a top-down approach, is no longer feasible (Wolfsink, 2000). The DAD model often leads to conflicting opinions as well as protests which delay implementation and may even lead to cancellation of the projects (Wolfsink, 2012).

Discussions in the framework of the so-called not-in-my-backyard-(NIMBY) concept often end up simply identifying factors of acceptance, which is a more passive attitude towards a top-down decision-making process where someone cannot change anything. Nowadays, many scientists argue that NIMBY is a misleading concept to understand local objections and concerns. One flaw of the concept is that it does not involve local knowledge to improve the results of decision-making processes (Batel & Dewine-Wright, 2015).

Today, stakeholders' concerns about urban infrastructure projects are different, compared to when the existing architecture was built in the early 20th century. At that time, infrastructure projects were viewed by many as representing technological progress, providing jobs and contributing to increased levels of social well-being. Now infrastructure is viewed by many as a blight on the landscape, a threat to biodiversity and as having negative impacts on property values (Devine-Wright, 2012).

There is also the need to understand how engagement and participation can go beyond a discussion of the spatial projects' details and shape the discussion about centralized and decentralized spatial planning where human factors play a significant role. Understanding is needed about how participatory governance works in different countries and how centralization or decentralization of decision-making shapes the process of stakeholders' involvement in the discussion about spatial planning issues.

# Methodology

## Co-creation

Co-creation methodology is a central element of participatory governance. It was developed originally in the works of Arnstein (1969) which followed public protests in Europe and the requirements from various groups of stakeholders to be actively involved into decision making processes on infrastructure which affects their lives. It was further developed by Rao in 2012 and Manzini in 2015 by bringing in interactional quality and the strength of social ties resulting from participatory activities.

Sherry Arnsteins "ladder of participation" distinguishes between different levels of participation: the bottom rungs of the ladder manipulation and therapy are considered as "non-participation" because they aim to cure citizens' doubts and fears and to educate them but do not give them a chance to influence the decision making process. The next rungs information, consultation and placation are called "tokenism". Those strategies allow citizens to hear and be heard but it is not guaranteed that their views will be heeded by the powerful ones who decide. True participation starts with the two rungs called delegated power and citizen control in which citizens obtain the majority of decision-making panels or have the managerial power (Arnstein 1969).

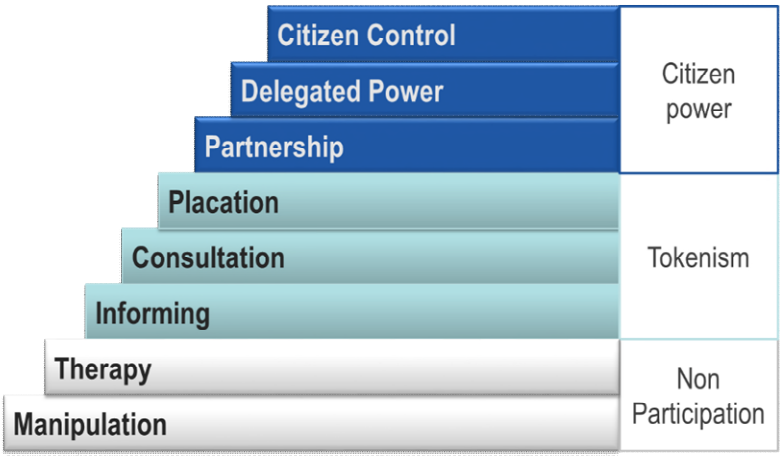


**Figure 1: Arnstein Ladder (1969)**

The ladder includes three degrees of citizen participations such as non-participation, degree of tokenism and degree of citizen power. These three degrees include eight levels such as manipulation, therapy, informing, consultation, placation, partnership, delegated power and citizen control. We describe each of these levels below:

- Manipulation is a non-participation by the less powerful while the powerful use them to achieve their ends.
- Therapy has the aim to cure or educate the participants according to the proposed plan. The role of participation is only to achieve public support by public relations rather than to gain contribution from public.
- Informing is a most important first step to legitimate participation, but too frequently it has the emphasis only on one-way flow of information. In this case, it does not foresee any possibility for a feedback or does not take it into consideration.

- Consultation is also a legitimate step and applies such things as attitude surveys, neighbourhood meetings and public enquiries. However, Arnstein still regards this level as just a window dressing ritual.
- Placation foresees cooperation and allows citizens to play an advisory role or plan, but it retains for power holders the right to judge the legitimacy or feasibility of the advice.
- Partnership is a redistribution of power through negotiation between citizens and power holders. Planning and decision-making responsibilities are shared. The have-not citizens can negotiate and engage in 'trade-offs" with power holders, e.g. through joint committees.
- Delegated power is when citizens hold a clear majority of seats on committees with delegated powers to make decisions. Therefore, the public now has the power to assure accountability of the policies and programmes to them.
- Citizen Control is when the have-nots citizens handle the entire planning, policymaking and managing a programme e.g. neighbourhood corporation with no intermediaries between it and the source of funds or states. Furthermore, powerless citizens obtain the majority of decision-making seats in the committees or a full managerial power.

The first five levels represent what Arnstein called tokenism, thus people can hear and be heard, but they still lack a power to make their points be considered by the powerful and decision makers. Therefore, at these levels of participation there is no assurance that the status quo of policies, laws or programmes will be changed. Participation that is restricted to these five levels does not lead to change of status quo. Hence it would not bring about meaningful participation. As such the powerless can achieve a level of advising (placation), but the power holders remain the ones who decide what and how can be done. In this case we rather speak about public awareness then public participation.

Originally, co-creation was developed as a process of active involvement of end-users into various stages of production. There is also understanding that co-creation and co-production, which are synonyms, can improve the efficiency of processes, fasten response times, make them more secure by reducing human errors, and increase inclusion, democracy and participation as it provides the same opportunities to different actors. Co-creation processes also provide legitimacy to decision-making on energy policy formulation and implementation. They help to increase transparency and to contribute to good governance. They also increase acceptability of the decision-making outcomes and their implementation at various levels of governance.

The methodology of participatory spatial planning is based on various methods of participatory governance and stakeholders dialogue such as interviews, training and focus group discussions. Participatory governance includes several co-creation methods such as decision-making experiments, rankings, games, but also such methods as:

- Providing information (flyers, information sent per post, press information, banners, films, websites, newsletters and sms),
- Consultations (through social media, online diaries, virtual 3d excursions, exhibitions and fairs, breakfasts in public space, simulations, infoboxes, roadshows, festivals, excursions through the city, moderated online forums, online video information and interactive online maps),
- Collection of feedback (representative surveys and samplings, citizen panels, interviews, mobile ideas and feedback boxes, competition of ideas, online surveys and citizen councils),

- Co-production (citizen cafes, focus groups, wiki, planning workshops for public, speed dating, online ideas platforms, open space, future laboratories, dragon dreaming and world cafes),
- Co-design (online dialogue, extranet dialogue, workshops, working groups, placemat methods, dynamic facilitation, values exchange, future conferences and round tables),
- Compromise oriented solutions (charette, community councils, citizen forums, 21st century town meetings, consent principle, systemic consensus exercise, forum theatre and mediation).

Within the scope of this project, co-creation may be subject to be carried out at three different levels, and it is important to differentiate between the objectives of the levels. The levels are:

1. *The process*. Refers to the design of the process of participatory governance in general and the role of the tools provided by the InSight & EnLIGHT consortium within the planning processes of a planning body, typically a municipality. This was the level investigated in the first co-creation workshop of the project. Co-creation is done with representatives from the municipality (policy makers) and other stakeholders involved in the planning process or affected by it.
2. *The case*. Refers to how to approach a concrete planning case through the use of the tools provided by the InSight & EnLIGHT consortium. For such a co-creation a planning case or issue must be provided by the planning body. This is the level to be investigated in the second co-creation workshop and co-creation is primarily done with representatives from the municipality who brings an issue to the table. Within this project, such a co-creation is done in order to form pilot cases together with the planning body.
3. *The space*. Refers to how the participatory process and the stakeholder perspectives it offers are taken into account in the spatial planning process. Co-creation is done with the participants of the planning process, for instance by means of the tools provided by the InSight & EnLIGHT consortium. This level is beyond the scope of the InSight & EnLIGHT project.

Therefore, the setting of the pilots (pilot definition) will require answering the following questions:

- Does co-creation methodology allow for discussion of peculiarities of single projects?
- Does the co-creation methodology allow involvement of stakeholders' knowledge from the beginning? What is the optimal time of involvement? This also requires the opening space for decision, meaning that the decision was not taken yet and there is still a possibility for participation and for a feedback.
- What are the requirements for the assessment of each pilot and of implementation of co-creation methodology? Unsure.

## Stakeholders mapping

The stakeholders mapping is a key element in every participatory governance process. The term "stakeholder" is a key term for co-creation methodology and participatory governance. Originally this term was used to describe investors holding a part of business or a financial stake. Nowadays the term is used to include groups of people who are involved into the process of decision-making and implementation of any project. These people can be involved emotionally, financially, personally or professionally. In any case they are holding a "stake" in the process and through their interests can affect the process itself and the results of its outcome.

Stakeholders mapping is important to identify relevant stakeholders. Usually stakeholders mapping includes identification of relevant stakeholders in the process of literature review or with the application of snowballing method. It is important to include stakeholders from various sectors: private, public, academia and civil society - because different people have various views on benefits and risks of spatial projects. Therefore, it is important to hear voices of different stakeholders' groups for understanding of various concerns and development of compromise-oriented solutions, especially for so contested area as spatial and urban planning. Their views and perceptions are driving their motivation. And based on their motivation they will be influencing outcomes of decision-making process on deployment of infrastructure, policy development and its implementation.

Therefore, identification and invitation of relevant stakeholders is a central instrument of the co-creation process. Besides mapping of organizations and personalities, it can also include mapping of political and societal forces which are affecting a project. Further on, stakeholders mapping helps to avoid duplication of efforts and repetition of mistakes. It can also provide suggestions for possible partnerships and joint efforts for realization of policy targets. In a co-creation process the stakeholders mapping is a basis for any effort on co-designing of energy policy or implementation of identified options.

The stakeholders mapping should provide answers to the following questions:

- What stakeholder group do we target in each pilot and what is the composition of these stakeholder groups?
- How these groups stakeholders in each pilot will be engaged and what motivates them to participate in frames of the pilots?
- Will various stakeholders group need some kind of guidance or manual to be engaged in frames of the pilots?
- Which topics should be addressed by each pilot?

The aim of the mapping is, firstly, to identify stakeholders in the pilots, including, for example, environmental and cultural citizen organizations as well as businesses and local government authorities. Second, the stakeholders mapping can show their formal and informal influence in the community and the general level of awareness about the planned spatial project, as well as their expectations and concerns.

## Value-based engineering approach

Several scientific works show positive impacts of stakeholders' engagement into formulation of policy, namely strategies and various action plans, into development of

methods and design of tools, such as decision support systems. Beneficial impacts of stakeholders' engagement include improved acceptability as well as usability and usefulness of tools for stakeholders as well as legitimacy and implementability of various policy interventions and measures.

Nowadays the majority of existing approaches to software engineering are based on the traditional understanding of the role of stakeholders, namely, that the product is developed in frames of a scientific project and then disseminated to stakeholders or end-users through various dissemination channels. This traditional approach gives to stakeholders rather passive role and turns them into passive consumed of finished products, rather than giving them a chance to be active co-creators. The emerging approach to software engineering involves stakeholders into participatory tool development, it also involves and considers their values, therefore it is called value-based engineering approach (Boehm, 2003).

This is a beauty of the value-based engineering approach that it aims to develop tools according to the values and objectives of various stakeholders' groups (Biffl et al., 2006). Als0 evidence exists that value-prioritisation prioritization (VOP) allows to meet demands of stakeholders and of their environment better than other techniques (Khari and Kumar, 2013). VOP is an approach which is based on preferences and which allows to consider preferences of various stakeholders' groups. It includes techniques and models from the decision-analytic field aimed to elicit users' values through studying their preferences (Vetschera, 2006).

The VOP can target a single stakeholder or a group of stakeholders. In a single stakeholder approach, it allows a scoring-based additive weighting of various criteria. In frames of this ranking stakeholder or prospective user ranks criteria/features/requirements according to his or her values (Azar et al., 2007). In case of a multiple stakeholders' group VOP allows for gathering preferences from several stakeholders or prospective users. It also allows for identification of conflicting positions between these various preferences. However, VOP in itself does not provide flexible means for handling ranking statements and aggregating preferences from several stakeholders in an elaborated way. Therefore, we also discuss here novel methods from the decision-analytic field.

One of the requirements to pilots is to settle the conditions where two participatory governance tools could be tested, and preferences of stakeholders could be integrated into further tools development. The received results will be further applied for development of value-based software engineering.

## Recommendations on data collection in frames of pilot projects

The aim of pilots is to investigate attitudes among stakeholders and laypeople regarding various tools[1] of participatory governance and application of these tools for urban and spatial planning. The data collected in frames of the pilots will provide insights on usability of the tools as well as on recommendations and concerns from different groups of stakeholders and laypeople regarding participatory governance, in general, and participatory urban planning, in particular.

The data collection actions will target both:

- process of implementation of actions to deal with issues of public acceptance and awareness of participatory governance tools,
- as well as the outcomes of participatory spatial planning processes.

The data collected in frames of the pilots can provide insights to the following questions:

1. Situation in the pilot:

- What is the level of awareness of stakeholders and laypeople in the pilots regarding participatory governance? Regarding participatory spatial governance? Regarding decision support tools for participatory governance such as multi-criteria decision analysis?
- Where do stakeholders get their information about participatory governance? Who do they trust these information sources?
- What is the previous experience in the pilots regarding spatial planning process and projects?
- What is the image of authorities and project developers implementing the projects?

2. Perceptions of the projects in the pilots

- How do the stakeholders view the benefits and risks (to themselves, their community and to the greater society) from the spatial projects being implemented in the pilots?
- What are their most serious concerns about the project?
- Do they feel that government and project developers explore as far enough available alternatives? Do they receive enough information about these alternatives? In light of the risks and benefits, is the project acceptable? Is this based on their personal interests or their view of the overall benefit to society?
- If they don't see the project in the local interest, do they view compensation as a legitimate option? What form should this compensation take?

3. Perceptions of participatory governance

- Are laypeople and stakeholders aware about actions to improve public awareness about the spatial projects in their vicinity? About actions to engage laypeople and stakeholders into decision making processes?
- What is their suggestion to improve decision-making processes on spatial planning and available alternatives for various spatial projects?

[1] In particular the components of the InSight & EnLIGHT toolset comprising of Allies' Association Wheel and Preference Multiple Criteria Framework.

- What are expectations of laypeople and stakeholders from engagement into decision-making processes on the spatial projects?

4. Perceptions of participatory governance tools

- How do stakeholders and laypeople perceive association wheel and multi-criteria decision analysis tools? What are their requirements regarding these tools?
- How do stakeholders and laypeople perceive the decision-making process based on the implementation of participatory governance tools and what is their feed-back on the usability of participatory governance tools?
- Is there a difference in the resulting feedback on the usability of the tools from stakeholders (from practice) and from academia (based on more theoretical considerations)?

## Concluding Remarks

Co-creation can become a methodology of how city planning, and policy authorities can work in a participatory manner. It can also become a methodology to integrate knowledge and feedback of private companies, city planners and citizen. Thus, co-creation can become a core stone of democratic process in organization of the spatial planning, in a format of so-called participatory governance of urban and spatial planning.

However, the implementation of co-creation practices requires understanding of socio-political acceptance among various stakeholders as well as establishment of institutional and regulatory framework for realization of co-creation practices. There are also certain limits to participation which should be addressed such as the dominance in the area of spatial planning of technological and economic content and the need to develop clear rules to guide stakeholders in choosing from existing alternatives. There is also the need to understand how engagement and participation can go beyond a discussion of the spatial projects' details which is the most frequent area of participation nowadays.

Within this project co-creation may be carried at three different levels including the level of the process which refers to the design of the process of participatory governance, the level of the case which refers to how co-creation approach can be implemented in frames of a concrete case, and the level of the space, which refers to how participatory process and stakeholders perspectives can be taken into account in frames of the spatial planning process. Feasibility of activities in frames of the InSight & EnLIGHT at these three levels has to be evaluated.

Stakeholders groups, their views, aspirations and visions are a key term in co-creation methodology. Therefore, special tools have to be developed to collect and to integrate the views of various stakeholders' groups. These tools can be developed in frames of the so-called "value-based engineering approach". The feasibility of two tools, Multi-Criteria Decision Analysis and Citizen Wheel, is tested in frames of InSight & EnLIGHT project. Also, perceptions, concerns and requirements for these tools will be collected from various stakeholders. Recommendations will be developed on how and if these tools can be applied for urban and spatial planning.

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