Guidelines for mobilizing and involving people
in the development of new ICT solutions – with examples from the Virtual European Parliament project on eParticipation

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Introduction

Involving users in the development of interactive systems increases the likelihood that those systems will be useful and usable. User involvement has been shown to be beneficial in such development.

In theory the benefits of user involvement in the development of new products, services and processes are obvious. Expected added values are for example higher acceptance among stakeholders, better hit-rates and faster time-to market.

We all understand the power of the crowd BUT … How do we mobilize users? What motivates people to take part in the development of an innovation in their spare time?

To succeed with the user involvement task there are many important factors to consider. In this Guide, user involvement experts share their knowledge, advice and lessons learned in mobilizing users. A specific case – “The Virtual European Parliament” – will be described in order to give readers an understanding of the complexity of user mobilization the better to prepare them for successful mobilization activities.

Welcome!

Perspectives

Perspectives on User Involvement

Involving users means giving them the opportunity to participate in the systems development process as representatives of a target user group with the aim to improve the chances of successful systems (Ives and Olson 1984). To clarify what we mean with user involvement, we refer to Barki and Hartwick (1989). They mean that participation represents the actions a user performs during the development process, while involvement relates to a psychological state in which the users are more concerned about the system. Adding to that, Olsson (2004) declares that the participation concept is imprecise, and techniques claiming to be participatory treat users as sources of information instead of as equal partners.

In the following, a notion of the different degrees of user involvement is presented. When we write about degree of involvement we refer to the actual influence the user has on the final system.

Ives and Olson (1984) categorized user involvement into six clusters:

- **No involvement;** users are unwilling, or not invited, to take part of the development.
- **Symbolic involvement;** input from users is requested but not used.
- **Involvement by advice;** users advice is asked for with help of interviews or questionnaires.
- **Involvement by weak control;** users have the responsibility to "sign off" at each stage of the development process.
- **Involvement by doing;** users are design team members, or official "liaisons".
- **Involvement by strong control;** users might pay for new development out of their own budget, or the users' organizational performance is dependent on the outcome of the development effort.

An additional degree of user involvement in design processes is when users are involved as hostages. In these cases users are encouraged to make demands in the initial steps of the design process. Then, if the final product is not acceptable, the designer refers back to the demands the users stated initially, leaving them with all the responsibility but no actual influence, (Larsson 2004).

Another way to differentiate degrees of user involvement is the for, with, and by categorization (Bekker and Long 2000; Eason 1987; Kaulio 1998).

- Design **for** users. Data about the users, general theories, and models of users' behavior are used as a basis for the design. This approach often includes interviews or focus groups.
- Design **with** users. An approach focusing on the user, utilizing data on user preferences, needs, and requirements. Includes a demonstration of different solutions or concepts so the users can react to the design solutions.
- Design **by** users. The users are involved actively and partake in the design of their own product.

USER INVOLVEMENT

When it comes to why users should be involved in the development of information systems, several reasons are given. In the following a selection of such motives and benefits is presented and clustered into three end-motives: ethical (democracy), curiosity (theoretical), and economic (pragmatic), (Bergvall-Kåreborn and Ståhlbröst 2008).

- **Ethical (democracy) perspective:** People have a moral right to influence their own destiny, and to influence technological decisions affecting their private and professional life. They participate in the design process and are given influence and mandate in the decision-making process. The guiding concepts for this perspective are democracy, power to the people, and improved quality of life.
- **Curiosity (theoretical) perspective:** The motive for involving users is to learn more about the nature of participation. Operational findings can be used both for ethical and pragmatic motives. This involves exploring issues such as the location of knowledge and knowledge sharing, different degrees and types of participation, and the ways in which corporate and national culture affect participation. The guiding concepts are cooperation, communication, and mutual learning between participants and contributors.
- **Economic (pragmatic) perspective:** The main motive for user participation is to get the job done better. The emphasis is on improving functional requirements by increasing designers understanding of the context and gaining access to the users' knowledge. When it comes to system acceptance, commitment among the users is crucial. The key concept is getting the job done better and more cost-effectively.

EFFECT-LOGIC WITH USER INVOLVEMENT

The effect-logic with user involvement in innovative processes is that:

- Users generates more ideas.
- The ideas are of more innovative character (Magnusson, 2003).
- Users are more positive about using the final product (Gallivan & Keil 2003).
- Increased understanding between developers and users.
- Decreased development time through continuous user involvement in tests (Magnusson, 2003).

It is important to involve users during the idea generation stage. Their ideas can function as inspiration to new ideas, a kind of catalyst that helps professional developers to think outside the box (Bergvall-Kåreborn, Holst & Ståhlbröst).

DIFFERENT KINDS OF USERS AND CONTRIBUTORS

The most apparent users are those who directly interact with the system with the aim to finalizing a task, (Sharp, Rogers, and Preece 2007). There are other definitions as well. Eason (1987) has clustered users into three categories:

- **Primary users;** those likely to be frequent users of the system.
- **Secondary users;** those likely to use the system through some kind of agent.
- **Tertiary users;** those likely to be affected by the introduction of the system or those affected by the purchase of the system.

There are also many similarities between the notion user and other notions that are used within areas such as business development, which results in the following concepts:

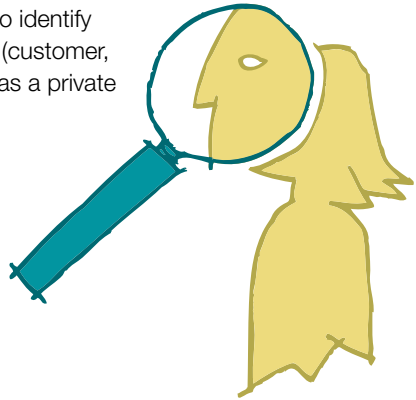
- **Modders.** They contribute with modifications of different kind. This category is common in the gaming industry, (Arkaji and Lang, 2007).
- **Lead users;** Those who are in the leading edge and currently experiencing needs that will later be experienced by many users. They anticipate relatively high benefits from obtaining a solution to their needs, (von Hippel 2005, 1986; von Hippel 2001).
- **End users;** Users who actually use the system, both as a content user and as a content provider. They can be divided into:
  - o *The actual end user* is connected strongly to the current design situation, in which the system is developed for a specific group of users.
  - o *Potential end users* are related to generic design situations, such as off-the-shelf systems, where we know the market segment but not the actual individual users or user group. (Ives and Olson 1984)
- **Customer and consumer:** According to Magnusson (2003) a customer is the person who is paying for the product, not necessarily meaning that the product will be used by that person. A consumer is the person who both pays for and uses the product. In the online world, especially in e-commerce, the consumer concept can be divided into two types, the individual consumer, who is given most attention in media, and the organizational consumer, who does most of the actual shopping, (Turban and King 2003).

Guidelines on user involvement – ten I's

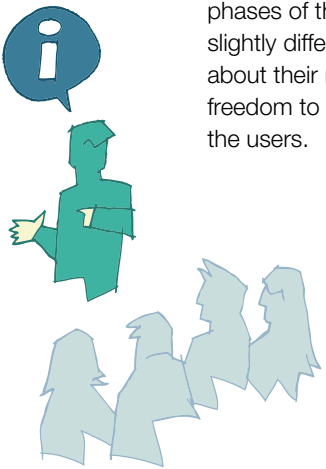
(Ståhlbröst 2008)

Identify

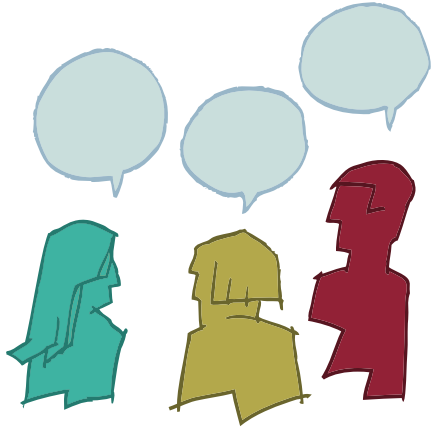
Clarify users´ individual characteristics to understand them in depth. Also identify in which role they are involved (customer, citizen, user, as an employee, as a private person etc).



Inform



Involve users as partners, invite them to all the phases of the development process, but with slightly different roles and responsibilities. Inform about their role, your expectations, and their freedom to choose. Be honest and open toward the users.



Interact

Enable interaction within the development team, and with partners outside the development team, such as users and authorities. The technology should support interaction among stakeholders. Focus on generating user needs instead of identifying systems requirements. User needs stimulate creative thinking within the development team. All involved need to have open minds to what users express.

Iterate

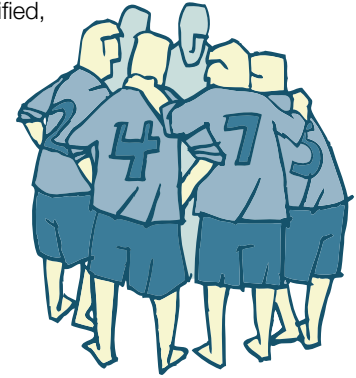
The iterative process of understanding users' needs and ideas has several purposes:

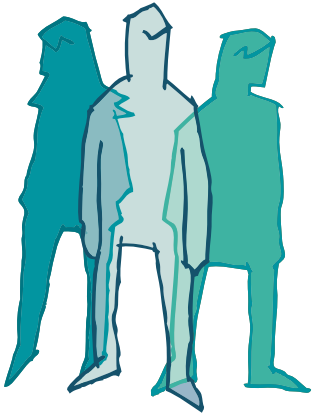
1. To increase the development of the team's understanding of the users' situations.
2. Building users' knowledge about possible solutions and diverse perspectives.
3. To value the design decisions throughout the process.

Users get empowered since they can follow how their expressions are being represented in the design, from an immature concept to a fully-fledged IT system.

Involve

Involve real users with real experiences based on their everyday practices in the early stages of the development process. Theories and existing knowledge about particular user groups' shouldn't be ignored or excluded, but supplemented, verified, and updated with the users' experiences.





Influence

Influence in user involvement processes has two different meanings.

1. Users can influence the development if they are involved early on in the process. They can actually have an influence on the development of new technological solutions instead of merely giving feedback on determined systems.
2. The possible influence of every stimulus applied in user involvement processes needs to be considered and discussed in the development team.

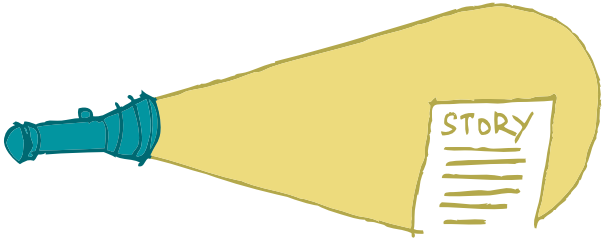
Having actual influence contributes to empowering users, which in turn creates a positive spiral where the users' motivation to influence increases. To make this possible, an open mind within the development team is needed.

Inspire

Users should be inspired to change. The developers should be inspired to expand their solution horizon.

Users should be inspired to express themselves in their own terms and talk about their situations and the goals they aim to achieve in everyday life. To inspire developers, users should also be inspired to envisage a desired future state and to describe this state. Using expressions of their visions as inspirational tools, not a definite truth, gives inspiration to the development team.

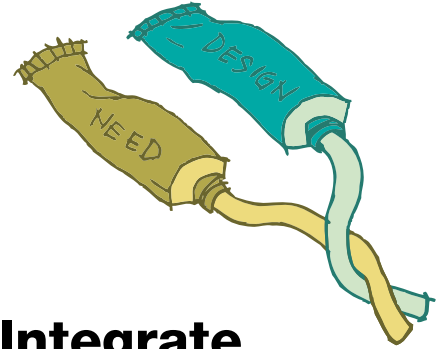
Moving the results from one context into another inspires users to elevate their perspective, which in turn opens up for new solutions. Implementing a surprise in a different group's real-world context facilitates creative thinking and expands the users' boundaries.



Illuminate

Create an open climate in which the users feel comfortable about revealing their thoughts. By encouraging users to open up and illuminate vital aspects about their current life situations it becomes possible to design the implementation of the system according to their situation.

It is important to delve into user narratives to illuminate relevant aspects from different perspectives. By this approach, insights about users' system requirements increase as does understanding of their perceived reality and the underlying rationale for their expressions. This understanding is vital in order to design systems that users will feel motivated to use.

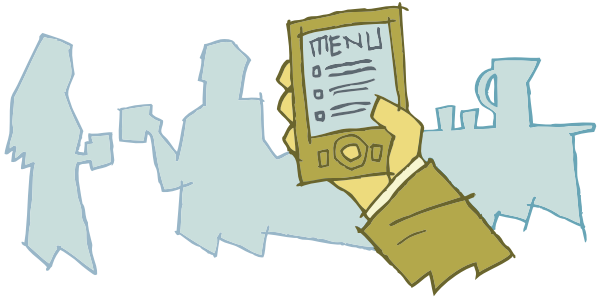


Integrate

To integrate means two things.

1. Representations of users' needs should be integrated in the design to increase the chance that the final systems will provide added value.
2. When the design (in all its varied maturity levels) is introduced, it should be integrated in the users' real-world context based on the knowledge gained in the interaction process.

Understanding of how the IT system fits into the users' context and habits can be gained, and based on that informed design decisions can be made.

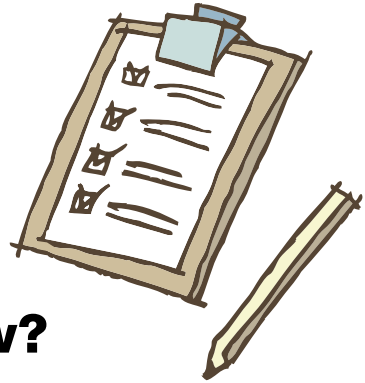


Implement

One focal point of user involvement is to implement and test the results in the users' perceived real-world environment. Create as authentic a situation as possible for the users to make it possible to get their spontaneous input. It is important to be open and attentive to what is happening during this process. People in general have a reluctance to change their behaviour. Hence they must be encouraged and reminded to use the implemented system on a regular basis.

Laboratory observations are not inadequate in all situations. But these tests and observations should be complemented with a real-world use perspective.

Before starting



Why, who and how?

A list of good questions when planning for user involvement:

Motivation

- What is the main motivation for involving users/citizens?
- What are the users' main motivations for being involved?
- What do we expect to achieve with user involvement?

The users

- What types of users should we involve, and why?
- What type of user relationship do we want to have and achieve?

The process

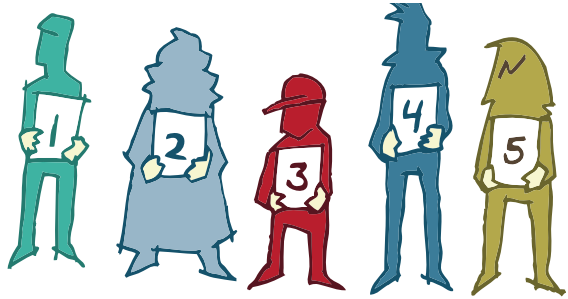
- What degree of user influence do we want to achieve?

USER MOTIVATION

When planning the mobilization process it's important to find the main motivation for the users to be involved. According to Reiss's theory, nearly all meaningful human behaviour is motivated by some compound variation of a number of elemental or primary desires, (Reiss 2004, 2001). Reiss found that motives are reasons why people, on a voluntary basis, are willing to do things; hence, knowing what motivates users is important in the processes of innovation.

Example of motivators:

- Power
- Curiosity
- Status
- Idealism
- Social contact



SELECTING USERS

There is one ground rule when selecting participants. They should represent, as far as possible, the users. This is something that needs to be considered when users from a specific group of society are involved, (Nielsen, 1993).

To select people that are suited for involvement activities, such as tests there are many factors to consider. Gulliksen och Göransson (2002) developed a number of guidelines to ensure that the users are as representative as possible.

- Strive to maximize the difference between different categories of users.
- Involve users who are flexible and willing to change and who have a strong social competence. One single saboteur can destroy a development project completely.
- Participation must be voluntary.
- Strive for gender distribution. Traditionally, male participation leads to developments focused more on technical performance, while female participation leads to developments with a focus on human needs.
- To maximize the difference among user categories, all kinds of ages need to be represented.
- Focus in the selection should be on the users who are the least knowledgeable about the area.

This is how we did it in VEP


Luleå tekniska

The European Parliament needs to have a closer dialogue with its citizens. To narrow the gap between citizens and EU decision makers the EU-funded Virtual European Parliament project, VEP, tested state-of-the art ICT.
The objective was to create a public space – the Virtual European Parliament – for debate between citizens and decision makers in the European Parliament.

As stated in the i2010 eGovernment Action Plan progress Study Summary report "The use of Web 2.0 channels has increased in importance since 2007, and multi-way deliberation and discourse are now just as important as one-way information." Thus far most eParticipation initiatives are local and regional. The European level is the least developed and has special challenges like differences in technical infrastructures, scale of population, different languages and participation cultures, different topics of interest etc which all were big challenges for the VEP-project.

In this section of the Guide we will share our lessons learned from the VEP-project related to how to motivate and mobilize citizens to take part and contribute both to the design and evaluation of their public space and in the European parliament decision-making process. As users we refer to both citizens and politicians.

The VEP-Strategy

- A bottom-up approach, originating from citizen's needs and ideas on how to communicate with decision makers.
- Involving citizens in the creation of the public space to create engagement in and ownership of the solution developed.
- Scaling up complexity and involvement in an iterative approach, from a smaller group to a bigger group, from the local level to the European level.
- Working with already existing local communities.

VEP started out with local events in native user languages, or in some cases in English. We mixed local real time events and virtual real time events with non real time events on the web. We also mixed small and big events and different ICT solutions (webb 2.0/mobile technology). VEP has worked both bottom up and top down. The Citizens added questions for discussion and the politicians asked questions and got answers from the participating citizens. The final in VEP was a big event in which citizens and politicians could participate both virtually and locally.

Citizen Mobilization – Experiences from VEP

- Recruit in the natural environments for the group of people you are aiming to mobilize, i.e. “Go to them, don’t make them come to you.”
- Choose a hot topic which is currently discussed in society and media.
- Make the events easy to join – design low thresholds and enable involvement. Prepare guidance for people joining.
- Design events in order to increase involvement – short time and focused contributions (power events).
- Incentives – People’s time and effort is important and should be rewarded.
- In eParticipation on EU level it is important to choose focused issues from the EU agenda.
- The focused issues should be engaging and related to everyday life. They should be easy to understand and possible to discuss insightfully.
- Offer different focused topics so participants can choose the ones most relevant to them.
- High level of recognition – use technology which is well known and easy to use.
- Inspire users and be creative in choice of methods and tools for user involvement.

Some more experiences from VEP:

- Be open when you invite politicians – all parties.
- Be open when you invite citizens – all groups of society should be represented.
- Approach established communities to create a mass.
- Approach students – they have time and are often engaged and curious.
- Design process and questions should be based on user needs and interest.

Mobilizing Users

For mobilization there are several motivations to attract different individuals:

- Incentives.
- Relevance of topics.
- Power to influence – make your voice heard.
- Personal visibility – social media and social communities.
- Societal changes – you are needed for a better world.
- Stimulate curiosity and fun.

The Iterative approach of mobilization and user participation in the VEP-project more in details

The citizen involvement and mobilization process of VEP has been designed in three iterations. Each of these phases consists of a number of steps involving users, supporting interaction and iteration between different competences within the innovation team as well as between different design and development phases. The VEP project has strived to design the user-involvement process in the categories of “with” and “by”.

ITERATION 1
APPRECIATING NEEDS PHASE

Main Purpose
Finding out needs and suggestions from citizens and politicians for the VEP public space.

Outcome
- Different scenarios for the VEP-portal.
- Knowledge about in why users want to participate in decision-making processes and ideas from the users on how this can be structured.

Mobilization and Participation Strategy
A smaller group of users were recruited by each local representative. For mobilization we looked into existing communities and asked them to be partners of the development team. Incentives were used to show value of their contribution.

User Involvement Category (for, with or by?)
The user-involvement in this iteration can be categorized as “with”. User preferences, needs, and requirements were in focus.

The iteration in more detail

All three countries made focus-groups interviews and one-to-one interviews with different stakeholder groups. Totally 28 people (citizens and politicians) from Belgium, Sweden and Spain participated. All interviews were made according to guidelines in an interview guide. The interviews were recorded and transcribed. The answers were then analyzed and categorized into a report from each country. The results showed different important issues to be considered when designing the public spaces, such as user characteristics, issues related to political engagement, ideas for the design of the VEP-portal and how the portal should function to be attractive.

ITERATION 2
USABILITY AND USER EXPERIENCE PHASE

Main Purpose
To evaluate the usage of different VEP technologies.

Outcome
- Feedback from users on the full set-up of the VEP public space.
- User experiences on process and the technology used.
- Motions and suggestions from citizens on different topics.

User involvement category (for, with or by?)
The user-involvement levels in this iteration were both with and by: With, as we demonstrated different solutions/concepts for the users and they tried them out and gave feedback. By, as they choose, initiated and pushed different debates of their interest based upon the thematic issues of the Power events.

Mobilization and participation strategy
We used the set-up of Power events to make people feel “powerful” and able to make their voice heard on topics that are close to them, relevant and currently in focus. At the same time they were also mobilized to influence the technical set-up, and smaller incentives were given to show the value of their participation. To mobilize people we used the strategy: “don’t make people come to us, go to them” e.g. we went to the natural environments where the people we were going to mobilize normally are like a pub, a meeting-spot at the university etc. This was to lower the

threshold and to catch the people's "point for decision". To attract different people and to motivate participation we used different stimuli, (Reiss 2004):

- Technology as an eye-catcher to attract the desire for new knowledge and to play [Motivators Curiosity and Social contact]
- Incentive to win a digital device to attract their desire to compete [Motivator Vengeance]
- The topic of the Power event with high importance of the target-group to attract the users' desire to influence and to improve society [Motivators Power and Idealism]

The iteration in more detail

All three countries jointly involved citizens to debate and discuss different EU-related topics in different Power events. These events were organized as a package of different activities all branded into one event with a very clear and easy communication strategy. The lengths of the Power events were from one day up to 10 days. During the Power events different activities were orchestrated by an organizing team and supported by different technical functionalities to facilitate the e-participation process and the technical evaluation. Each event had a planned structure and was well prepared in advance.

The results from the second iteration were evaluated through a web-based questionnaire among the participants and through a self-evaluation form of the core team of the project.

ITERATION 3
EXPLOITATION AND DISSEMINATION PHASE

Main purpose:

- To expand the user community and attract more people to join, including EU politicians.
- To finalize the technical implementation and to give input to the sustainability plan including preparatory work for a forthcoming market introduction.
- To analyze the VEP participation process.

Outcome

- Larger community of citizens.
- Engaged Members of the European Parliament (MEP).
- Dialogue between young citizens and MEPs.
- Lessons learned on VEP participation process.

Mobilization and participation strategy

The mobilization and participation strategy was to start from subjects with relevance of the EU-decision making process to show relevance of citizen contribution for the EU decision-making and for the whole society.

EU-politicians were setting the scene of the event by posting different questions for the citizens and this preparatory phase was held in their native-language. People were mobilized through different existing communities. A final mega-conference was held to give personal visibility and

to give people the chance to get a new experience. Also incentives were used to attract “less politically interested” citizens and to make them take the step to try something new.

An important participation strategy for iteration 3 was to involve the same people as in the earlier iterations. This is a way to confirm that what has been designed answers to their needs. We also recruited new people to take part in the test through different channels.

User involvement category (for, with or by?)
The category of user-involvement was with, as we demonstrated different solutions/concepts for the users and they tried them out and gave feedback, and by as citizens voted for what issue to be on the agenda of the final mega-event.

The iteration in more detail
This iteration was designed as a series of local activities which ended up in a final joint event. Citizens and politicians worked closely together and topics on the EP agenda were discussed. ICT tools were used to debate, suggest and advise EU-politicians on their future decisions. Citizens from Belgium, Sweden and Spain participated during the event, both off-line and online.

Citizens filled in a web-based questionnaire and the politicians involved were interviewed one-by-one, to follow up their expectations in relation to the results.

An experience from this iteration was that the citizens often are afraid that their comments and input to discussions are not well grounded enough. They feel they should be more informed than they are. To mobilize it is important to frame the questions and topics in a way that is comfortable for the participants. By choosing areas close to their everyday life and interests it is easier for all involved to see how they can contribute.

This iteration was also an opportunity for the team to learn more about what the participants want to know, what kind of information do they ask for?

Lessons Learned

Recommendations from VEP

Different conditions
It is more difficult to mobilize users/citizens in political projects (eParticipation) than in projects for technical development.

Start local, think global and work with meaningful issues
Start with issues relevant to people's daily lives and make the people decide on topics. Try to overcome the lack of interest in politics by using easy market communication.

(Remark: People we have interviewed say they are not interested in politics but they are interested in societal questions that have an impact of their daily life, and this is politics!)

Planning, planning and more planning
It is important to be more target oriented than task oriented and to be ready to change direction according to what happens during the process. People are creative humans.

Foster personal relationships and engagement of personalities
Dedicated personalities for engagement are very crucial and they should be involved in key-roles.

Facilitation is crucial to improve procedure and outcome
As a facilitator you have to be patient, active and at the same time not trying to take control. Use reminders such as newsletters, e-mails, SMS to create awareness and increase the access and activity level of participants.

Technology is just a tool – not the silver-bullet solution
Technology can bridge some barriers like distance in time and place but not all barriers. When integrating different technical tools remember to be clear about what the different functions are intended for and name them according to their purpose to avoid confusion among users.

Critical mass of users and recognition of individuals of the community are crucial
Strive to engage many users from all user-groups. More users create higher attraction, but at the same time individual recognition is crucial.

Different communication channels are needed
There is not one channel for all. Give people access to many channels to choose from depending on topic, situation and personality. Some people will provide know-how, suggestions and advice, some will write motions, some want to debate and some want to vote for stated alternatives.

Real-time events
Real time events are difficult to handle. It is hard to engage people with short notice and no preparation, especially if you use advanced technologies and/or if the question is complex. For real time events it is even more important to define the questions and make them easy to relate to.

Participation expertise is needed
Participation and political expertise are crucial skills when designing and running a mobilization process. Involve skilled participation expertise in the facilitation team to take care of existing know-how.

Native language is core
For involving people and to get true participation the communication language is crucial for many people. As they will contribute from the heart they have to be able to use their native language.

Respect peoples time and efforts
In the VEP-project we used the set-up of time limited Power events to boost and make user participation as efficient as possible and to save people time and efforts.

Comments from participants

"It can be useful to participate a bit in politics if decision makers really listen and discuss issues in a mature way."

"It seems to give a true chance for people to take part and affect our EU politicians in decisions and the distance to Brussels decreases."

"I see the internet as a natural and simple communication channel."

"Maybe it is possible to open the politicians' eyes to things that happen in our society. They are "laymen" in many areas."

"I get the opportunity to discuss different questions and to express my views."

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