

RACE to scale

FormIT – users as catalysts for innovative IT solutions



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INTRODUCTION

User-driven innovation has become a key competitive factor for firms to identify users needs and to incorporate this knowledge in products and services. By involving users in innovation and product development processes the likelihood of success and users´ acceptance increase.

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FormIT is a methodology for user involvement, created and tested at the Centre for Distance-spanning Technology (CDT), Luleå University of Technology. In this guide, specialists in user-driven innovation share their knowledge and lessons learned in organising effective innovation processes where user involvement in open processes has been seen to considerably shorten the time from idea to beta trial. A case of user-involvement in practice, applying the FormIT methodology, is described: “The Mobile Shopping Guide – GuidU”.

Finally Guidelines are shared for the readers to make their choice of how to involve users in innovation processes; for, with or by.

RADICAL
OR
INCREMENTAL
INNOVATION

Researchers have distinguished between two broad types of innovation that differ in the extent to which the innovation is similar to or different from existing practice.

Radical innovation represents significant change, and often opens up new markets and potential applications. Radical innovations include products that are completely new to the company or new to the market, products based on new technologies and new ventures unrelated to existing business operations.

Incremental innovation introduces relatively minor changes to an existing product. Incremental innovations are related to the company's current products and businesses, and generally take the form of product modifications, upgrades and line extensions.

These different perspectives on innovation influence how users should, and could, be involved. They also indicate the most suitable users to involve.



For more radical solutions, identifying and involving lead users becomes important. They should be involved in the early stages of the process and in that way can offer new perspectives. Their needs and visions provide input to the creative process while the evaluative parts are less accentuated. Their involvement also develops their understanding of the situation, which facilitates their ability to continually provide valuable evaluative input.

If the aim of the organisation is to develop incremental innovations, then users with long experience of using and sometimes modifying their products/services are more relevant to involve. Users are involved with the emphasis on the design and evaluative stages. How much the users contribute is often dependent on the company's ability to capture their ideas and knowledge.

**FOR,
WITH
OR
BY
THE
USERS**

Design for users. Users are consulted, but do not actively participate in the decision making process. To understand the users and their needs, general data, models, and theories on users and users' behaviour provide input. Specific user data and/or requirements are determined through interviews, focus groups and observations. The designers have the active and controlling role of "game master": they initiate, stage, and run the process; they have overall control over creating both form and content, and create "the solution space". There is some iteration when users comment upon the design.

Key challenges for the designers are how to grasp the rich context and practice of the users and how to create products and services that match and satisfy users' needs.

Significant factors:

- Users enter development process relatively late
- It is necessary to verify requirements and prototypes.
- Designers are active: they steer and drive the process.
- Users are passive information repositories.



Design with users. Products and services are co-designed by designers and users. The designers still have the more active and controlling role: they run the process. However, when it comes to control over form and content and to some degree the solution space, the users have a strong to equal voice. There is a constant iteration between the designers and the users focusing on knowledge sharing. Users are involved and influential in the design process. Their main resource is their knowledge of the context together with their vision for the solution, and their main skills are cooperative.

Key challenges for the designers are how to establish effective working relations between users and designers and to inject relevant theories and methods, unknown to the users, which need to be debated and assessed.

Significant factors:

- Users are involved throughout the development process, with special attention to early and late phases.
- Co-creation based on human behaviour and needs as input for the innovation.
- Designers are active; they steer design and development activities.
- Users are active; they steer context and evaluation activities.



Design by users. The users become the innovators and to some extent the designers and the designers become facilitators. This is still a highly unusual approach. The users are “induced”. Their main resource is still their contextual knowledge but their main skills are their ability to innovate and to think outside the box. At one end of the spectrum the users design and develop parts or ideas for a product or service supported by the designers and by toolkits of different types. Designers take over and develop the final versions. At the other end of the spectrum, the users themselves become innovators and designers, with the assistance of some supporting organisation.

Key challenges are how to select innovators and how to evoke, bring forward, the innovators’ tweaking energy.

Significant factors:

- Designers facilitate the process.
- Users initiate and drive the process.
- Users inspire idea generation, create prototypes, produce content and develop the solution.
- Users design and develop ideas or parts of the solution.





FORMIT **METHODOLOGY**

What is to be gained from user-involvement?

- Discovering what users want and need.
- User priorities – What motivates them?
- Test ideas, services, concepts, products.
- Obtain ideas “for free”: efficient source of new ideas.
- The users do the selling.
- Speeding up acceptance.
- Discovering unexpressed needs.

The FormIT methodology can be seen as a spiral in which the focus and shape of the design become clearer. The scope of the evaluation broadens from a focus on concepts and usability aspects to a holistic view on the use of the system. FormIT was developed by researchers at Luleå University of Technology in close cooperation with CDT and various IT oriented companies.

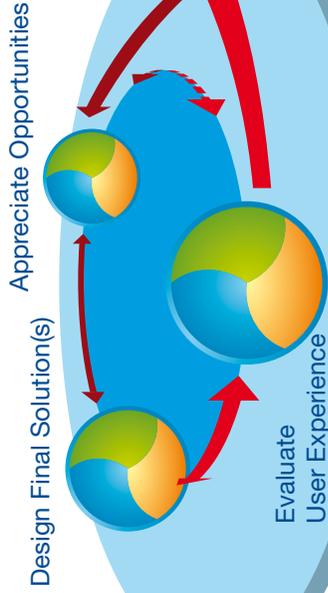
The methodology can support both radical and incremental innovation development by involving different users and by putting weighted emphasis on the different phases.

FormIT methodology

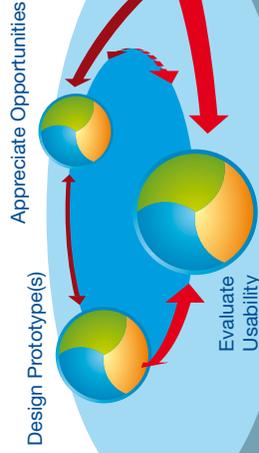


COMMERCIALISATION

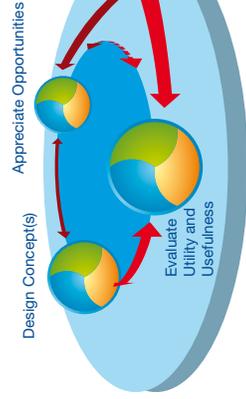
DESIGN OF FINAL SOLUTION



PROTOTYPE DESIGN



CONCEPT DESIGN



PLANNING



Three cycles in the FormIT process:

- CONCEPT DESIGN
- PROTOTYPE DESIGN
- DESIGN OF FINAL SOLUTION

Before and after these three cycles, two additional cycles are included: planning and commercialisation*

Three iterative phases within each cycle, repeated as many times as necessary:

- Identifying/appreciating opportunities
- Design
- Evaluation

Three aspects within each phase:

- Use
- Business
- Technology

** The commercialisation cycle is a separate project. It is not described in this handbook.*

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Initial cycle PLANNING

It is important during planning to acquire as much information as possible about:

- The project background.
- Aim and scope of the project.
- Different perspectives of the project.
- Relevant skills within the project team.
- The context in which the project exists.
- Constraints and boundaries that need to be defined and agreed upon.

A mix of competences stimulates knowledge sharing and an increased understanding of the stakeholders' visions. It is crucial to achieve a shared perspective on the purpose of the project.

FormIT Cycle 1. CONCEPT DESIGN

The first cycle of FormIT, **concept design** focus on appreciating opportunities and on generating the basic needs that different stakeholders have of the product or service. This phase should end up in a concept, which represents the generated needs from the first step in the cycle.

The process of the concept design cycle starts by appreciating opportunities which includes:

- define the scope for the process
- the target-user group and their important characteristics
- where these users can be found and their role in the user involvement process.



The challenge is to separate between the needs of the service and needs in the service.

The needs in focus here are the needs that motivate the users to buy and use a particular IT solution, i.e., what triggers their motivation.

This process is supported by obtaining a rich picture of different stakeholders and user groups, their behaviour, attitudes, and values by letting the users tell stories about their lives. In these stories, the users should be encouraged to tell stories about their history, their everyday practice, and their dreams of the future to facilitate an opportunity to find users' needs.

When the data collection process is finalised, the users' expressions should be analysed and needs should be generated and translated into concepts, and by that, the focus for the work shifts from generating needs to designing concepts.

The design of the concepts needs to be detailed enough for the users to understand the basic objective of the solution, without having a design of the product or service to keep more doors open and to avoid premature solutions.

After the design is finalised, the focus shifts again, but this time from the design phase to the evaluation phase. The aim of the evaluation of the first cycle is to:

make sure that the involved stakeholders such as users agree with the basic objectives of the developed concept.

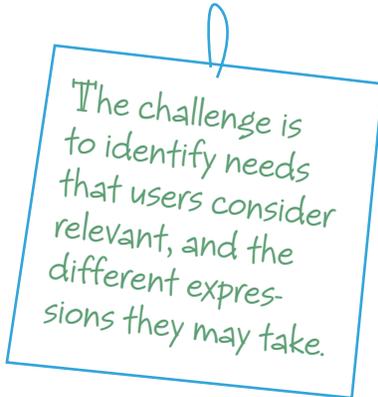
This means that the basic objectives and functions of the solution should be related to the generated needs of the solution to make sure that these are consistent. If not, this cycle needs to be reiterated until such coherence is achieved. The aim of this evaluation is also to give users the opportunity to co-create the concept according to their needs.

FormIT Cycle 2. PROTOTYPE DESIGN

The second cycle, **prototype design**, starts with the process of identifying stakeholders' needs in the service. That is,

when using a service, what needs are then important for the users?

As in the first cycle, this is done through a variety of data gathering methods, such as interviews and observations.



The challenge is to identify needs that users consider relevant, and the different expressions they may take.

One way of doing this is to keep the concept design, with key needs related to it, visible for the users during the data collection activities, so it is possible to relate to these during the discussions. When the data collection no longer generates new insights and findings, the focus again shifts to the design phase. However, in the second cycle the design of the solution broadens to include basic functions, work flows, and interfaces.

The prototype that has been designed in this cycle needs to be detailed enough for the users to understand and be able to experience how the final service will look and feel. This leads to an evaluation that is centred on usability aspects.

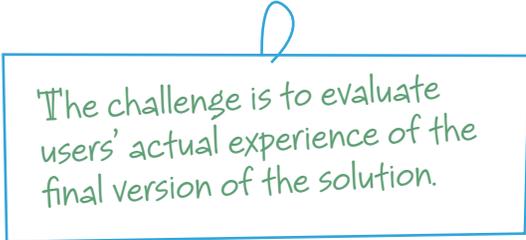
The evaluation includes questions and analyses concerning:

- how easy the service or product is to learn
 - how effective and enjoyable it is to use,
- from the user's perspective. Hence, the evaluation is focused on interaction between the user and the solution. It is not limited to the user interface, even though this plays an important role in how the user experiences the interaction.

FormIT Cycle 3. DESIGN OF FINAL SOLUTION

The third cycle, **design of final solution**, starts by analysing the results from the usability evaluation in order to generate changes in the needs of and in the service or product.

Small changes and adjustments in the needs are quite common, especially in relation to the needs in the service or product, as the solution develops and users' understanding of structure, content, workflow, and interface deepens. Based on these changes, changes in the design of the solution also take place, as well as general development work to finalise the solution as a whole. User experiences goals can be both positive and negative, for example enjoyable or frustrating. They are primarily subjective qualities and concern how a solution feels to a user and differ from more objective usability goals in that they are concerned with how users experience an innovation from their perspective, rather than assessing how useful or productive a solution is from its own perspective.



The challenge is to evaluate users' actual experience of the final version of the solution.



- Cerrito
- Victorinox
- Casio
- Väggklockor

THE TISSOT

TISSOT

KlockSlaget
URMAKERI & FÖRSÄLNING

LONGINES

TISSOT

ERT

**CASE
STUDY
– RADICAL
INNOVATION**

GuidU (the Mobile Shopping guide) is a mobile service for distributing offers from retailers to shoppers. Shoppers can choose areas of interest, for example fashion, sports or music. GuidU also notifies shoppers when they are geographically close to a retailer with an offer that is of interest.



The partners in the project GuidU were project managers from CDT, developers from Ericsson Research, a mobile marketing manager from Initia Marketing & Media, researchers from Luleå University of Technology, a local retail trade organisation, service promoters and various types of users, including content providers; users (retailers) and end-users (shoppers).

GuidU has its background in a technical platform with an add-on service trialed by Ericsson Research on the Chinese market. It was decided that an open concept development process together with end-users would be a fruitful strategy to find out how the service could be adopted into the Swedish market.

The GuidU project was designed in four iterations following the FormIT methodology.

Iteration 1: NEED-FINDING AND IDEA-GENERATION

Purposes

- To learn more about the user.
- To obtain input on predefined ideas.
- To obtain ideas for products and services.

User involvement

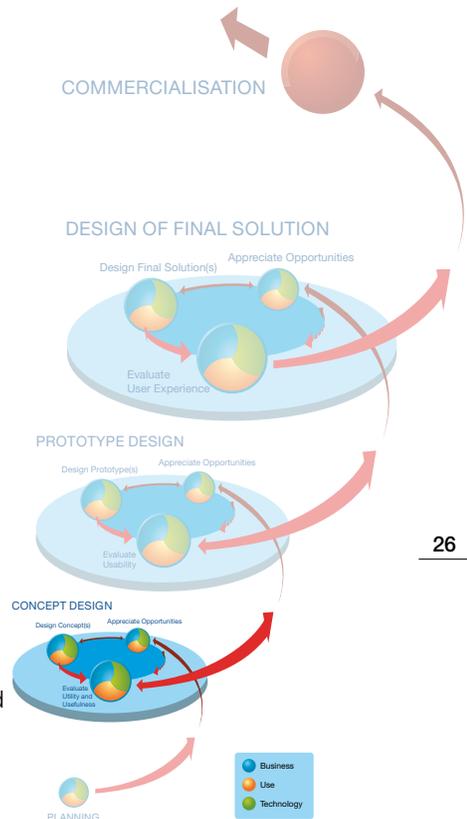
- Generate ideas for new products and services.
- Evaluate concepts.

Total duration of this iteration

1.5 months.

Users involved

Lead-users of 8 shoppers and 4 retailers.



Detailed iteration: methods used

The first iteration started by recruitment of shoppers and retailers. During the recruitment phase data was gathered about the users to involve the best mix of users. Two focus group interviews were organised with a mix of shoppers and retailers. The moderator was a researcher from the university. A developer from Ericsson Research played the role as observer. Normally, interviews would be transcribed, analysed and summarised by the researchers who in turn would present the results to the developers. Due to the strategy chosen in this case, the developers were able to start their development work directly after the interviews since they had already achieved a rich understanding of the most important issues. A second purpose was for the developer to learn more about user participation in general and focus groups interviews in particular.

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The first part of the focus group interviews consisted of a presentation of each participant; their background, and how they use the mobile phone in everyday life. The second part focused on their needs and behaviour related to service consumption and shopping. The third part focused on how they want to receive consumer-related information.

Outcome

The outcome of this iteration was important input for the design of six different concepts for next iteration all addressing different needs and ideas generated by the users.

Iteration 2: CONCEPT DEVELOPMENT AND EVALUATION

Purpose

- Develop and educate developers.
- Co-create the service concept.

User involvement

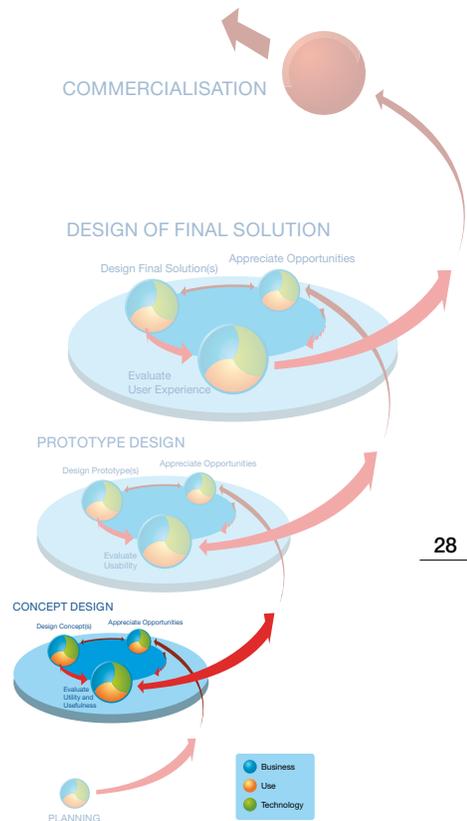
- Co-developing concepts together with developers.
- Generating ideas together with other users and developers.
- Being a discussion partner on suggested concepts.

Total duration of this iteration

2 months.

Users involved

Lead-users – 10 shoppers and 3 retailers.



Detailed iteration: methods used

In the second iteration three different focus group interviews of shoppers and retailers were organised. In the first focus group some people from iteration one participated together with new people. In the second focus group all participants were new to the process, and the third focus group took place with retailers who also were new to the process. Different scenarios illustrating six service concepts were presented and users evaluated these concepts focusing on usefulness and willingness to use.

Outcome

The developers took the results of these focus group interviews into the development work. They continued the building of a prototype based on the concept which received best feedback in the focus group interviews. The concept was further improved by elements from the other concepts which had also been discussed in positive ways during the interviews.



Iteration 3: BETA TEST AND PROTOTYPE DEVELOPMENT

Purpose

- To obtain input on the prototype.
- To learn more about the users.
- To further develop the prototype.

User involvement

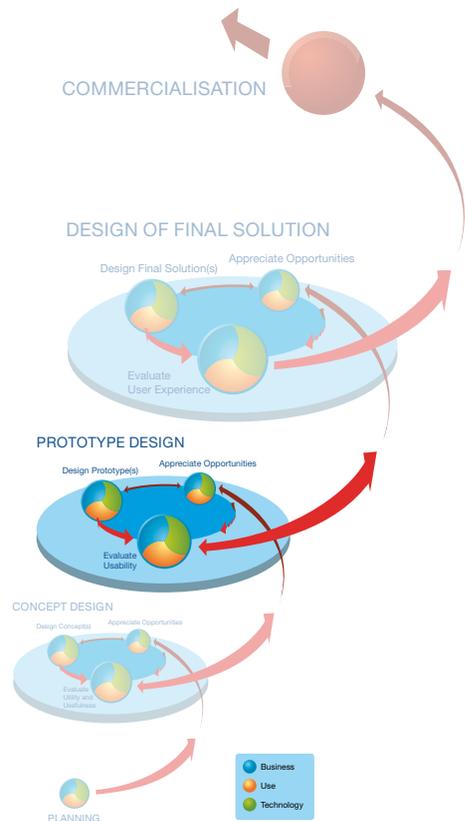
- Evaluation of beta prototype.
- Obtaining feedback on business models.

Total duration of this iteration

3 months.

Users involved

Potential first customers (shoppers and retailers).



Detailed iteration: methods used

The iteration began with an introductory meeting with potential retailers and content providers to be involved. A variety of retailers was wanted in order to obtain as much and as varied input to the service as possible. A mix between product and service companies; between stand-alone stores and chain stores; between companies with planned products/ services and those carrying mainly impulse items; and between male and female oriented companies. A local retail trade organisation, representing about 300 local companies was also invited to the meeting since it was considered important to include a potential service distributor to the project. Ten retailers decided to join the project and were invited to a hands-on workshop. Then a two-week beta test were carried out where the companies were to create a mobile market window presenting their company and their special offers, create mobile marketing campaigns, and study statistics. After the beta test six retailers were selected for a focus group interview.

The shoppers involved in this iteration were mixed in gender, age and occupation, attitude to shopping, new technology, positioning services and mobile services. Further people were chosen living in an urban area, and being on the upper level of creativity and lead user characteristics. People from the first two iterations were invited to be part of the beta test, together with new participants.

During the test, data were logged to see how and how much they used the service. The shoppers also had the possibility to mail or send SMS messages with questions and suggestions. At the end of the beta test all the users were asked to fill in a questionnaire dealing with their experience of using the service. Finally, eight shoppers were selected for a focus group interview.

Outcome

Based on the beta-test, decision was made to go further with development and that a full scale test should be carried out when the new improved version was ready.

Iteration 4: REAL-LIFE TEST – LARGE SCALE

Purpose

- To learn about users experiences of the service through large scale tests.
- To determine business opportunities of the service.

User involvement

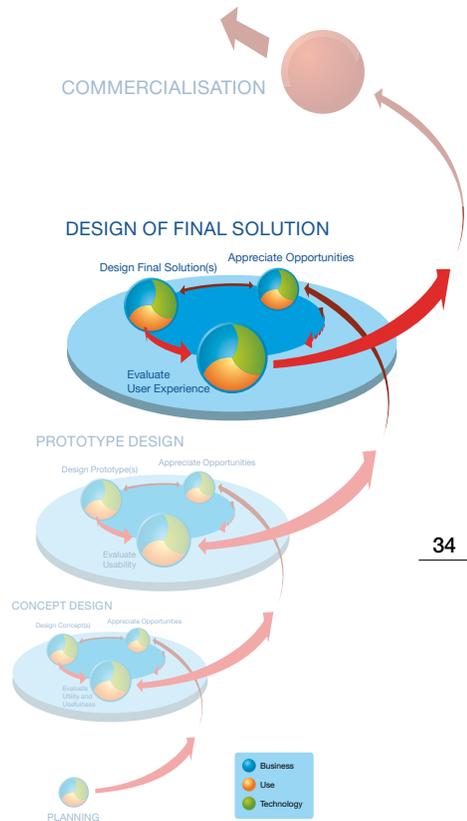
- Evaluation of the service added value.
- Feedback on business model.

Total duration of this iteration

6 months.

Users involved

- Potential shoppers.
- Potential promoters of the service.
- Potential retailers.



Detailed iteration: methods used

In this iteration, the objective was to do a large scale real-life test of the prototype including shoppers and retailers. In this iteration, the service was pre-launched and promoted by two different organisations to retailers and shoppers. This test ended up with 260 shoppers (end-users) who registered for the service and 61 retailers registered as users.

After the test, interviews have been done with both promoters and retailers. In addition the service was also evaluated through a questionnaire among a wider group of end-users to assess added value of these kinds of services.

Outcome

The result from the fourth iteration was used as input for decision for next step. Result of the iteration showed that technical functionalities, commercial effectiveness and the business model needs to be further improved for potential future commercialisation.

Methods for data collection and user involvement and number of and type of participants.

		ITERATION			
		CONCEPT DESIGN		PROTOTYPE DESIGN	DESIGN OF FINAL SOLUTION
		Need Finding idea generation	Concept development and evaluation	Beta-test and prototype development	Real-life test – large scale
METHOD	Questionnaire	One answered by 80 shoppers		Two answered by 96 shoppers	One answered by 240 shoppers
	Workshops	Two with 8 shoppers and 4 retailers	Three with 10 shoppers and 3 retailers	Two with 22 retailers	
	Focus group interviews			One with 6 retailers and one with 8 shoppers	
	Interviews				With 7 service promoters and 11 retailers
	Real-life use and evaluation			10 retailers and 20 shoppers together	260 shoppers 61 retailers 8 service promoters

Lessons Learned

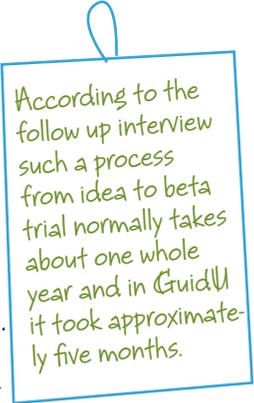
Early user involvement for faster development

Ericsson Research had collaborated with users in earlier test and evaluation set-ups, but in GuidU users were involved early in the process. Evaluations showed that this was experienced as a singular success and this is a work method which Ericsson Research would like to continue.

Before it was tried the developers expected that the users would have a clear idea what they wanted and give a clear ranking between alternatives. Instead it turned out to be a process similar to the one usually encountered, an interactive process with brainstorming and evaluation of suggestions. This gave a feeling of genuine and positive collaboration. This also gave the developers a deeper understanding of the users, which helped them to make design decisions in subsequent design work.

The main difference from the usual way of working was the early involvement of users. In GuidU they took part in the idea generation and needs identification phases, as well as in the concept development phase. Hence, users played the role of co-developers from the start. Later they also contributed as testers of the prototype. This led to a much faster process.

According to the follow up interview with involved partners, such a process from idea to beta trial normally takes about one whole year and in GuidU it took approximately five months. (and this time could have been shortened even more if all partners had been able to spend a bigger portion of their working hours in the project). It is believed that the increased understanding of the users and their situations, needs and reasoning made it possible to make design decisions without further research or studies.



According to the follow up interview such a process from idea to beta trial normally takes about one whole year and in GuidU it took approximately five months.

Technology for user interaction

Web-based questionnaires were used during the recruitment of participants as well as in evaluations. E-mail and telephone conferences were the main modes of communication between the regular face-to-face meetings. Further, during the test periods, test participants could answer a web-based questionnaire from their location at the time. They could send SMS messages or e-mails with reflections on their experiences during the test periods. The mix of technologies empowered the user involvement process.

Different competences enriching the process

Several stakeholder groups have been involved and active: developers from Ericsson Research, researchers from the university, representatives from an SME with long experience in mobile marketing, promotion competences and finally, users (retailers) and end-users (shoppers). Researchers and SMEs took part in the development process with their expert knowledge and different perspectives. For example an SME with expert knowledge in mobile marketing took part in the beta test of the prototype. This was a valuable contribution to the project. Depending on the situation, different competences were included in the process.

To summarise, partners represented different geographical areas in Sweden, with different organisational affiliations and with differentiated knowledge domains. This created a project involving rich discussions and a range of perspectives. The most difficult issue was to keep everybody informed of what decisions had been made, and who would do what and when. Hence, the coordination of information and partners was a major issue for the project leaders.

Open product development and different perspectives

It was experienced as more difficult to be able to keep everybody informed and updated during the whole process than when working with product development in a closed setting with no direct user involvement. The different perspectives were not viewed as a problem, but rather as something important to have in order to be successful in the development process.

Collaborative methods

The methods chosen in the GuidU project typically encourage the groups to discuss openly as a way to contribute to the final results. Focus group interviews and workshops have often been chosen as methods for creative sessions.

Successful methodology

The project group regarded the methodology as very successful. Ericsson Research intends to continue working with the methodology of involving users in early phases and throughout the whole process from idea to design of the final solution.



GUIDELINES

– FOR,
WITH
OR
BY

In previous chapter of this book we introduced three different ways to involve users in innovation processes, the for, with and by users approaches. Now we want to introduce some guidelines on how you can determine the most suitable approach for your organisation. Related to each approach we want you to consider five question areas that will help you to determine which approach that is most suitable for your objective and organisational situation and what methods and tools to choose.

- 1. Motivation:** When the aim is to carry out user innovation processes, it is important to consider why you want to involve users, what are you really aiming to accomplish by involving them in your innovation process.
- 2. Activity:** Users can contribute to many different activities and their involvement renders a variety of results. It is therefore important to determine the activities to which the users can contribute most. Hence, the second step is to consider the activities in which your organisation can and wants to involve users.
- 3. Organisational situation:** The user innovation process and approach must fit into your organisation's strategy and structure to ensure that users' input really makes a contribution.
- 4. User involvement:** Define the most suitable users to involve, and how they can be involved.
- 5. Suitable methods and tools:** Once it has been decided why users should be involved, in which activities, whom to involve etc, it is important to consider how they could be involved.

Determine the most suitable approach for your organisation by assessing each approach following this guide. Once completed, the approach that has most relevant answers might be the approach you should implement.

Use the following guidelines to make your choice of how to involve users in innovation processes; for, with or by.

INNOVATION FOR USERS

1. MOTIVATION

What would you like to gain from involving users in the innovation process?

- To obtain input on already existing products and services.
- To obtain input on predefined ideas.
- To obtain ideas for products and services.
- To reduce the risks involved in product/service development.
- To learn more about the user.

The first step is to determine what motivates your organisation to involve users and what you want to gain from that involvement.

2. ACTIVITY

In which activity or activities do you want to involve users?

- Give their complaints to existing products and/or services.
- Verify requirements.
- Generate ideas for new products and services.
- Evaluate concepts.
- Evaluate prototypes.
- Evaluate new products or services.
- Obtain feedback on business models.
- Respond to market surveys.

Users can be involved in a variety of activities focusing on innovation, consider in which activities you can and want to involve them.

3. ORGANISATIONAL SITUATION

Which organisational factors are true for your organisation?

Your organisation:

- has strong IP rights or patents.
- strives to maintain a high level of control.
- costs are a critical success factor.
- does not have a well defined innovation process.
- believes that the role of the organisation is to be the innovator.

The third step is to reflect on your organisation's innovation strategy and structure.

4. USER INVOLVEMENT

Which target user groups are important to your organisation?

- Enquiring customers (give suggestions and critique).
- Lead users (are aware of, and can express their needs).
- Non-users (have actively chosen not to use the product or service).
- First buyer (the first customers who buy the product after market launch).

In user involvement activities, different types of users are the best contributors depending on what you want to accomplish with their involvement.

5. METHODS AND TOOLS WHEN CHOOSING A **FOR USERS** APPROACH

Methods suggested

- ▶ Focus-group interviews.
- ▶ Usability evaluations.
- ▶ Contextual inquiry.
- ▶ Why, why, why.
- ▶ Cultural probes.
- ▶ Social tagging.

Some tools for support

- ▶ On-line focus-groups.
- ▶ Pop-up site surveys.
- ▶ On-line survey tools.
- ▶ Blogging.
- ▶ Photo blogging.
- ▶ Camera.

Depending on which user innovation approach you choose, different methods and tools are appropriate.

INNOVATION WITH USERS

1. MOTIVATION:

What would you like to gain from involving users in the innovation process?

- To strengthen users' influence.
- To develop and educate developers.
- To develop and educate users.
- To co-create products and services.
- To lower the threshold for users to start using a service.
- To create a team with a variety of competences.
- To build new relations.

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2. ACTIVITY:

In which activity or activities do you want to involve users?

- Co-develop concepts together with developers.
- Co-develop parts of products and/or services together with developers.
- Generate ideas together with other users and developers.
- Be a discussion partner on suggested concepts.
- Market products and services to other prospective users.

3. ORGANISATIONAL SITUATION

Which organisational factors are true for your organisation?

Your organisation is facing a situation in which it:

- has a market that is shrinking.
- has customers who are increasingly asking for customised products.
- needs to iterate with its customers many times before it finds an appropriate solution.
- sees that quality is a critical success factor.
- wants to coordinate user activities and input.

4. USER INVOLVEMENT

Which target user groups are important to your organisation?

- Launching customers (participate in the development, test prototypes, give feedback).
- Reference customers (compare with other products/services and give feedback based on the comparison).
- Lead users (are aware of and can express their needs, and can develop solutions).
- Non-users (have actively chosen not to use the product or service).

5. METHODS AND TOOLS WHEN CHOOSING A **WITH USERS** APPROACH

Methods suggested

- ▶ Future workshops.
- ▶ Field tests/evaluations.
- ▶ Brainstorming.
- ▶ Rapid prototyping.
- ▶ Scenarios.
- ▶ Mock-ups.
- ▶ Self-assessment media.
- ▶ Emotion cards.
- ▶ Creativity games.

Some tools for support

- ▶ On-line brainstorming tools.
- ▶ Emulators.
- ▶ Power Point, Photoshop etc.
- ▶ Brand communities.
- ▶ Innovation communities.
- ▶ Crowdsourcing Design.
- ▶ Asynchronous on-line interviews.

INNOVATION BY USERS

1. MOTIVATION:

What would you like to gain from involving users in the innovation process?

- To let users develop/design new products and/or services.
- To widen the company's horizons and innovation processes.
- To support already engaged users.
- To obtain more insights into future needs.
- To obtain radical new solutions.
- To understand better what the users want to use and why.

2. ACTIVITY:

In which activity or activities do you want to involve users?

- Developing products and/or services they need.
- Producing content.
- Using toolkits to design new products and/or services.
- Modifying existing products and/or services.
- Contributing towards an existing innovation community with ideas.
- Discussing possible solutions and ideas with other users.

3. ORGANISATIONAL SITUATION

Which organisational factors are true for your organisation?

Your organisation is facing a situation where:

- the market is shrinking.
- your customers are increasingly modifying your products.
- the organisation uses high-quality computer-based simulation or rapid prototyping tools.
- product differentiation is a critical success factor.
- you want to support user activities and input.
- your products and services are modifiable.

4. USER INVOLVEMENT

Which target user groups are important to your organisation?

- Lead users (are aware of and can express their needs, and can develop the solutions they want to use).
- Modders (re-design products and build their own solutions).

These users' willingness to innovate is also influenced by the following situations:

- They have a need to innovate.
- They have been involved in the context of innovation for a longer period of time.
- They are in a leading position in the market.
- They can profit greatly from a solution to their needs.
- They want to share information freely.
- They are not in direct competition within the same community.

5. METHODS AND TOOLS WHEN CHOOSING A **BY USERS** APPROACH

Methods suggested

- ▶ Story-boarding.
- ▶ Creative workshops.
- ▶ Idea and/or development competitions.
- ▶ Lead-user involvement.

Some tools for support

- ▶ Open source communities.
- ▶ Brand communities.
- ▶ Innovation communities.
- ▶ Idea boxes.
- ▶ Toolkits for innovation.
- ▶ Crowd sourcing development.
- ▶ Ubiquitous computing.

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