

Development plan

Development activities coordinator:
UAS/municipality:

Development plan

Company:
Business id:
Address:

Version: 2.0
Date:
Development activities coordinator, contact details

Testing/user trial environment coordinator, contact details

Approvers:
UAS/municipality, director/manager, contact details

Testing/user trial environment coordinator, contact details

Company, CEO, contact details

Development plan

Name of the product

1

Development plan

2

1. Introduction

5

2. Development target and objective

5

3. Purpose of development activities

6

A. Co-creation

6

B. Testing and user trial

6

4. Targets outside the scope of development activities

7

5. Organisation of development activities

7

5.1 Required documents

8

5.2 Coordination of co-creation planning and implementation of co-creation

8

5.3 Coordination of testing and user trial planning and its implementation

8

6. Schedule

9

7. Implementation plan

9

7.1 Co-creation implementation plan

9

7.1.1 Participants to be invited

9

7.1.2 Phases of co-creation implementation

10

7.1.3 Co-creation data collection

11

7.1.4 Analysis of co-creation data

12

7.1.5 Reporting of co-creation results to the

12

7.2 Testing and user trial implementation plan

13

7.2.1 Purpose of testing

13

7.2.2 Participants of testing planning event

13

7.2.3 Phases of testing planning event

14

7.2.4 Implementation of testing and user trial

15

7.2.5 Testing and user trial data collection

16

7.2.6 Analysis of data

16

7.2.7 Reporting of results to the company	16
7.3 Commercialization and marketing implementation plan	16
8. Approval and finishing criteria	17
9. Documents	17
10. Risks	17
11. Signatures	18

1. Introduction

2. Development target and objective

Questions (1-5) on the development of the product or service, drafted in collaboration.

The following questions should be answered with the help of the development activities. The questions may provide a framework for data collection:

1.	
2.	
3.	
4.	
5.	
6.	

3. Purpose of development activities

The purpose of development activities describes what will be done to develop the product or service. One or more of the following options may be selected.

A. Co-creation

- Co-creation to develop the product
- Co-creation to plan testing / user trial
- Co-creation to promote commercialization and marketing

B. Testing and user trial

Prerequisite for planning is that the devices and software to be tested have been presented to the group in charge [of the project] before testing and user trial may be approved

- Technical testing (e.g. testing compatibility or functionality of technologies)
- Usability testing (e.g. students as users, arranged testing situation in, for example, simulation environment or in the standardized UAS environment)
- User trial (in an authentic environment, in the user's everyday life and in natural contexts)

Please tick the agreed extent of testing and user trial activities.

Small: Product/service is tried/tested with the help of simulation or standardized environment. Students, end users and staff are involved. (Testers: a few users, duration: max 1 day) [Product: Prototype or other presentation of the idea]

Medium: Product/service is tried/tested in standardized or authentic environment, e.g. home, activities or service centre. Students, end users and staff are involved. (Testers: a few users, duration: 1 day-3 weeks) [Product: Product or service meets the minimum criteria]

Large: Product/service is tried/tested in an authentic environment, e.g. home, activities or service centre. Both end users and staff are involved. (Testers: several users, duration: more than 3 weeks) [Product: Product has been tested by users before.]

Other testing: if none of the descriptions above fits, please describe the extent of trial/testing here:

4. Targets outside the scope of development activities

In these development activities, the following aspects of the product or service will not be developed

The development plan will be updated if any new development needs arise during the development activities.

5. Organisation of the development activities

The company is responsible for presenting initial questions to the coordinator and the expert team, aimed at developing the product or service. The questions are discussed in collaboration.

In co-creation and testing and user trial, as well as in commercialization and marketing, the company is responsible for presenting the product/service. In testing and user trial, the company is also responsible for training the participants and the delivery of devices to be used, their maintenance, user interface, insurances and, if needed, additional instructions for use.

The development activities coordinator gathers a multidisciplinary expert team and is in charge, together with the team, of the company collaboration as planned, and the progress of development activities as well as the drafting of the required documents.

In all cases, the development activities coordinator is responsible for the activities to be carried out in an ethically appropriate manner so that, for example, human rights and research ethical principles are respected and complied with. If necessary, the coordinator is responsible for the application of the research permission for the co-creation, testing or user trial, and the drafting of the report to the ethical committee. This development plan will be annexed to the research

permission application. The research permission must be obtained before the development activities may start. Also the briefing note on the development activities, the consent form and privacy policy are annexed to the research permission application.

5.1 Required documents

The following documents are required for the development activities (DA) and/or the research permission (RP):

- Invitation (DA)
- Briefing note (DA&RP)
- Participants list (DA)
- Consent form (RP)
- Non-disclosure agreement (DA)
- Privacy policy (GDPR) (DA&RP)
- De minimis initial form from the company (DA, only with EU projects)
- Signed company cooperation agreement (DA)
- Other, please specify

5.2 Coordination of co-creation planning and implementation

- Development activities coordinator
- Expert team member
- Expert team member
- Expert team member

The above-mentioned team agrees on the following matters: planning, implementation, equipment, schedule, booking of locations, catering and inviting the needed persons to the event, as well as the documents required for the development activities and the research permission.

5.3 Coordination of testing and user trial planning and implementation

- Development activities coordinator
- Expert team member
- Expert team member
- Expert team member

The above-mentioned team agrees on the following matters: planning, implementation, schedule, booking of locations, recruitment of the needed residents, staff and students, as well as the documents required for the development activities and the research permission.

6. Schedule

The schedule may be specified when the plan and the preparatory works have been finalized and the needed permissions have been obtained.

Task	Start	Finish
Co-creation planning		
Co-creation implementation (data collection)		
Testing / user trial planning		
Testing / user trial implementation (data collection)		
Staff and students onboarding		
Analysis and report of the data collected		
Results reported to the company		

7. Implementation plan

7.1 Co-creation implementation plan

Co-creation implementation:
Co-creation implementation:

7.1.1 Participants to be invited

Number

staff representatives
residents
UAS experts
students
company representatives
other experts

Total

persons.

Participation in co-creation is voluntary. The invitation includes the matters of the event's briefing note. It explains the purpose of the event and describes the course of the event. The invitees are asked to familiarize themselves with the privacy policy attached to the invitation. The invitation explains that by signing in to the event, the person gives his/her consent of a voluntary participation. In the beginning of the co-creation event, the participants sign - consciously and voluntarily - the consent form or otherwise give their consent to the co-creation data collection. The co-creation data will be anonymized and the results are reported in such a way that an individual participant's responses cannot be identified.

Co-creation increases the participants' understanding and produces information to help better understand the product/service to be developed, and the needs and expectations related to it, from different perspectives. For example, the *company* receives information of the needs, attitudes and usage environments of the users, as well as the development needs, usability and usefulness of the product/service to the user and usage environments. The *users* receive information on the potential of the product/service to improve the users' well-being, safety and quality of life.

7.1.2 Phases of co-creation implementation

Co-creation event consists of the following phases:

1. Introduction
2. Tuning in
 - Getting to know the product/service
 - Getting to know the users' needs and the usage environment
4. Value creation
 - Usability and usefulness of the product/service to the user and usage environment
5. Reflection and feedback
 - Identifying the development needs and solving the key challenges
6. Conclusion and agreeing on further action
7. Reporting the results to the company

These phases may be modified if necessary.

7.1.3 Co-creation data collection

During co-creation, data to help further develop the usability and applicability of the product/service is collected. Choose the methods to be used or add another method below, if applicable:

- data collected by product
- observation
- interview
- survey
- group interview
- focus group interview
- co-creation

Other methods, please specify how, for example, by digital methods (e.g. Jamboard, Zoom)

Data to questions listed in point 2 is collected from the following persons:

Number

- residents
- staff members
- family members
- voluntary workers
- students

others, please specify

Data is collected anonymously, without identification data, No personal data of the co-creation participants is collected and all results are reported in such a manner that participants may not be identified. Every co-creation participant will be given a briefing in writing. In addition to the briefing note, the users are orally explained the purpose of the user trial, description of its course and matters related to the collection, retention, processing and disposal of data.

(Briefing note, Annex 1)

The co-creation coordinator collects the documented participation consent form from the persons participating in the event. The participant may interrupt his/her participation at any time without stating any reasons. Interrupting the participation does not cause any harm to the participants and the interruption does not have an effect on the services of the user. (Consent form, Annex 2)

7.1.4 Analysis of co-creation data

Data collected during the co-creation is analysed by the UAS, using scientifically proven analysis methods. Qualitative (interviews and observation) data is analysed by content analysis methods. Quantitative data is analysed by simple quantitative methods (frequency and percentage).

7.1.5 Reporting of co-creation results to the company

The co-creation coordinator ensures that the co-creation results are anonymously reported to the company in such a manner that individual participants cannot be identified. In the results, the company is given recommendations on development targets and factors strengthening the usability of the product.

7.2 Testing and user trial implementation plan

Planning event implementation:

Planning event implementation:

Testing and user trial plan is drafted together with the company and it can also be done by co-creation in such a way that also users and other relevant parties take part in it (see point 7.1).

7.2.1 Purpose of testing

In the planning phase, the purpose of testing has to determined:

testing the technical functionality of the product/service

testing the usability of the product with the help of a supervised and controlled testing event in a simulation environment, standardized environment or authentic environment

user trial in authentic, natural environments of the users.

7.2.2 Participants of the testing planning event:

Number:

residents
staff members
family members
voluntary workers
students
company representatives
other experts

Total appr.

persons

7.2.3 Phases of the testing planning event:

1. Getting to know the team's activities and members
2. Getting to know the product/service
3. Solving the key challenges of the testing/user trial planning and implementation:

Definition of testers		
Number of testers		
Size of the needed testing data		
Period of data collection		
Location of data collection		
Methods of data collection	Selection	Description of information produced by data
-Data collected by product		
-Observation		
-Interview		
-Survey		
-Group interview		
-Focus group interview		
-Co-creation		
-Other, please specify		
Analysis methods	Selection	
-Content analysis		
-Quantitative analysis		
Data retention location		
Data retention period		

4. Division of tasks, responsibilities and timetable of testing
5. Can the tested products be modified:
 - no
 - yes. The company describes what kind of modifications may be done:
6. The company is liable for the following, in the beginning of testing:
 - A. Devices and software are available
 - B. The technical functionality of devices and software has been tested and the product is deemed functional and safe prior to the usability testing.
 - C. Before the user trial, usability has been tested in a simulation or standardized environment or otherwise in a supervised and controlled environment, and the product has been deemed usable.
 - D. The time and location of the usage training have been agreed and the products are left with the testers at the training event.
 - E. How and by whom assistance and maintenance are provided, during the testing:
7. Agreeing on further action.

7.2.4 Implementation of testing and user trial

The company initiates the testers/user trial participants (administrators of the user trial, students and/or staff of the test environment) to the use of the product/service. The staff of the test environment introduce the end users to the use of the product/service. The product/service is tested and used in an agreed manner for an agreed period of time, and testing data is collected in a systematic manner during the testing. After the user trial, the product is returned to the company.

The testing and/or user trial coordinator collects the documented participation consent form from the persons participating in the event. The participant may interrupt his/her participation at any time without stating any reasons. Interrupting the participation does not cause any harm to the participants and the interruption does not have an effect on the services of the user. (Consent form, Annex 2)

7.2.5 Testing and user trial data collection

During the testing and user trial, data is collected in an agreed manner. On the basis of the data, the company is submitted an opinion on the technical functionality of the product/service, its usability, usefulness, applicability and ethicality.

Data is collected anonymously, without identification data, No personal data of the testing and user trial participants is collected and all results are reported in such a manner that participants may not be identified. Every testing or user trial participant will be given a briefing in writing. In addition, the users are orally explained the purpose of the user trial, description of its course and matters related to the collection, retention, processing and disposal of data. (Briefing note, Annex 1.)

7.2.6 Analysis of data

The testing and user trial coordinator is responsible for ensuring that the collected data is analysed by using scientifically proven analysis methods. Qualitative (interviews and observation) data is analysed by content analysis methods. Possible quantitative data is analysed by simple quantitative methods (frequency and percentage).

7.2.7 Reporting of results to the company

The testing and user trial coordinator ensures that the results are reported to the company in such a manner that individual participants cannot be identified. With the results, the company is given recommendations on the development targets of the product/service and factors strengthening its usability, usefulness and ethicality.

7.3 Commercialization and marketing implementation plan

The commercialization and marketing implementation plan is drafted together with the company, and it can also be finalized by co-creation, including users and other relevant parties. The implementation plan should include the targets, purpose, implementation method and schedule of the service (see points 7.1.1 - 7.1.7).

8. Approval and finishing criteria

The development process starts when the company has approved the development plan. Co-creation, testing and user plan require a granted research permission if residents and staff of, for example, the Senior Centre of the City of Helsinki are involved.

The development process, as defined by this development plan, finishes when the company has received the conclusion report and given the project feedback on the service implementation and the recommendations made on the basis of it.

The development process must be finished or interrupted if it does not correspond to the objectives of the project, as agreed with the company, The cooperation is also interrupted if the conditions of the research permission are not complied with.

9. Documents

Conclusion report on the product's or service's:

- co-creation
- testing/user trial
- commercialization and marketing

Other, please specify

10. Risks

One potential risk is not to have all the desired participants to actually participate in the development work (co-creation, testing and user trial, and commercialization and marketing). As an anticipatory measure, a written invitation and a briefing note are distributed well in advance through several communication channels. To secure voluntary participation, the participants are asked to give a written consent.

11. Signatures

Any information on the product/service, acquired during the services, shall not be forwarded in such a manner that the company or product could be recognized, without the company's permission. Metropolia UAS has the right to use the name of the company as a reference of the implemented service.

Date and signature:

Director/manager:

UAS/municipality:

Date and signature:

Company and its representative:

Date and signature:

Director:

Testing/user trial environment: