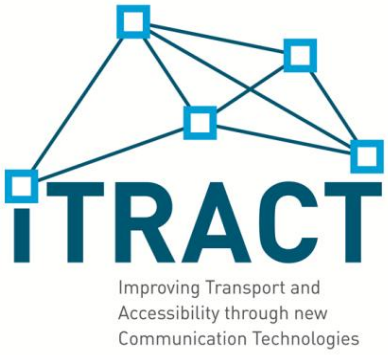
Organization model for pilot development in ITRACT: Definition, implementation, testing and evaluation

To be filled out for every pilot within ITRACT project!



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Name of pilot leader: Benra, Juliane, Jade University, Wilhelmshaven, benra@jade-hs.de

1. Pilot definition

Title of Pilot: P(J2) Check of monthly season tickets for pupils_J2

(Mobile) applications the pilot consists of:

name of (mobile) application	abbreviation of (mobile) application, e.g. R2, J5*)
Check of monthly season tickets for pupils	J2
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*) nomenclature see spreadsheet in ProjectPlace: /Working Folders per WP/.../WP500_Overview_mobile_applications_and_pilots_ITRACT

Description of Pilot → goal, features, target group (abstract):

Target group of this pilot are ticket controllers from public transport companies. Bus tickets for pupils of the Stadtwerke Wilhelmshaven (public services Wilhelmshaven) with a limited period of validity (weekly, monthly) are equipped with a barcode that up to today is not used for any function. Using this new developed pilot the validity of the bus tickets can easily be checked from the ticket controller using his smartphone, running the application and scanning the barcode on the ticket. Moreover it can be checked whether the user of the card is the real owner that means the ticket controller is able to get information whether a ticket is lost and found – what happens quite frequently – or even stolen. In this case a pupil gets a replacement card with another barcode and the old card with the old barcode is invalidated. For that reason illegal use of the ticket can easily be prevented. A database that is stored on the smartphone contains all data like names of the pupils, ticket types, validity periods and so on. As in rural areas the GSM-connection might be not covering the whole region and for privacy reasons it is required that the database is not transmitted via GSM network. Instead it is stored on the smartphone of the ticket inspector. He can update the database e.g. every morning when starting his working day by a private WiFi network at the bus company. The application can then be used just with one single button to start the scanning process.

Tasks and queries for this project step (checklist):

(Please make use of this checklist to ensure a proper project course!)	**completion date**
Nomination of a pilot leader. Outcome: Benra, Juliane	15.10.2012
Generation of timeline for pilot definition, implementation, testing and evaluation according to ITRACT-project plan (see ProjectPlace). Outcome: start date pilot definition: 15.10.2012 completion date pilot definition: 15.11.2012 start date pilot implementation: 15.11.2012 completion date pilot implementation: 15.03.2013 start date pilot testing: 21.03.2013 completion date pilot testing: 29.03.2013 start date pilot evaluation: 25.03.2013 completion date pilot evaluation: 30.04.2013	30.04.2013
Planning and arranging necessary human, monetary and physical resources. Outcome: Pilot implementation phase is already finished.	21.03.2013
Definition of scenarios that should be "run" with real users within pilot testing phase. Outcome: Scenario 1: The new developed application will be delivered to the Stadtwerke Wilhelmshaven. The database containing all the related data from pupils has to be stored on the ticket controllers smartphones. It is planned that in testing phase the application is directly used in real life conditions from the ticket controller to get realistic feedback. Scenario 2: Click here for typing! Scenario 3: Click here for typing!	21.03.2013
Checking with WP4 if realization of pilot and scenarios is technically possible. Outcome: Click here for typing!	date
Defining which (local) transport company will execute the pilot testing phase and offer the new service (think of transnational collaboration!).	21.03.2013

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Outcome: Stadtwerke Wilhelmshaven (public services Wilhelmshaven)	
Searching for, inviting and preparing possible user groups for pilot testing phase. Make sure that necessary hard-, software and licenses are available for testing phase. Outcome: see above	date

Comments:

The mobile application "Check of monthly season ticket of pupils" has been developed in close cooperation with the Stadtwerke Wilhemshaven. The ticket controllers of the Stadtwerke Wilhelmshaven represent the user group for the application.

2. Pilot implementation

Tasks and queries for this project step (checklist):

(Please make use of this checklist to ensure a proper project course!)	**completion date**
Creating building environment (programming environment, server, licenses) in close cooperation with WP4. Outcome: Click here for typing!	date
Using WP4's architecture and building blocks. Outcome: Click here for typing!	date
Considering the Organization Model for usability-testing (see → ProjectPlace → Deliverables per WP → WP5 → Organizational Model for usability-testing --> Usability_Guideline_Checklist.pdf) Outcome: This application has just one single graphical user interface that is very easy to handle just with one button. There are no additional features implemented that would make the use of the application more sophisticated or even difficult. For that reason an eye-tracking test for testing the usablity of the application is not required.	15.03.2013
Pre-Testing of pilot by using it yourself and by other team members in consideration of scenarios specified during pilot definition. Outcome: Application works fine!	15.03.2013
Using results of pre-tests for optimization of pilot's programming architecture. Outcome: Based on the feedback of the ticket inspectors after one year of use a second version of the app has been created and delivered to the Stadtwerke Whv	12.08.2014

Comments:

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3. Pilot testing

This part of work package 5.1 will provide instructions and guidelines of how to organize and run pilot testing in the ITRACT living lab areas. This part will cover topics such as number of participants, length of the testing, questions to ask and how to keep the participants interested and engaged.

The overall objective for the pilot testing is given for each regional partner, at least to a certain extent: to test the usability of the pilots and evaluate if the pilots increase the benefits with public transportation (see section 4). It is however of great importance to get more in-depth feedback of the respective pilot in terms of regional conditions. Therefore is it approved to add regional specific questions to the evaluation questionnaire that will end the pilot testing (see section 4).

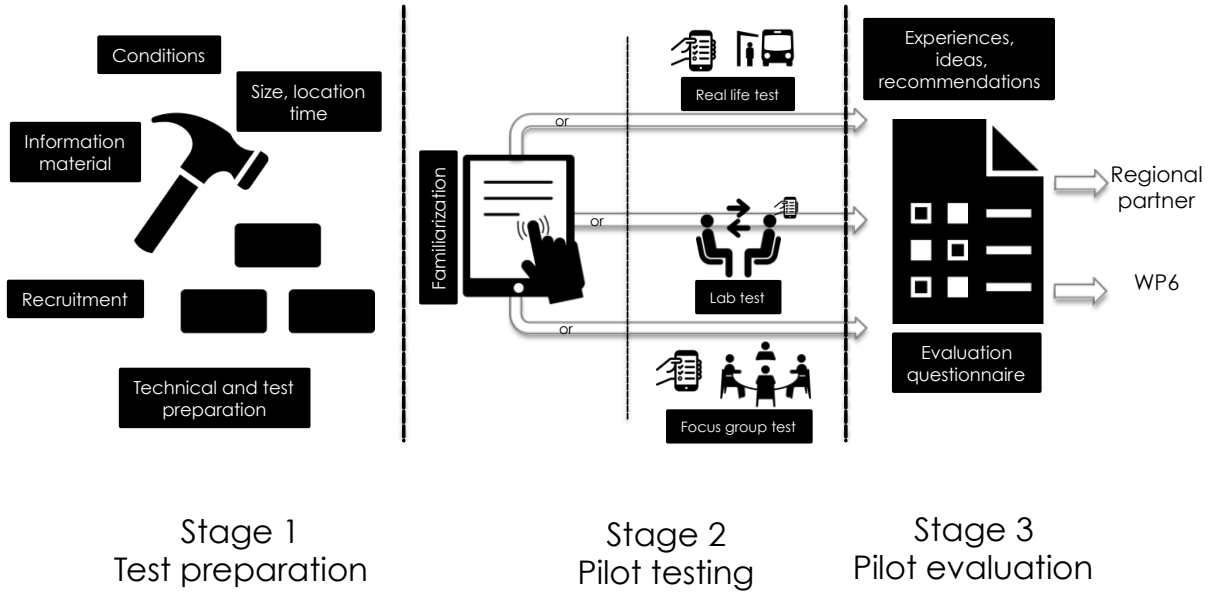

Figure 1. Regional Pilot Testing Process

As depicted in figure 1 each regional partner should organize the activity in the living lab area into three stages. During stage 1, the pilot testing stage is prepared following five toolboxes. Conditions for the pilot test is determined. The size, location and time for the test are decided, in addition is participants recruited and informed. Stage 2 constitutes the actual test, and the living lab toolbox proposes that it should be organized using one of three alternatives (test models): real life test, lab test or focus group test.

An important step in stage 1 is to select and prepare the test model used in stage 2 and also prepare the devices that should be used to run the test. Regardless of test model stage 2 includes a familiarization step. In this step the participants uses the service and becomes familiarized with its functions. Stage 2 aims to provide input to the pilot evaluation in stage 3. The pilot evaluation is to a large extent standardized and should be used by the regional partners in order to facilitate cross-regional evaluation. It constitutes of an evaluation questionnaire where the majority of questions are the same across the living labs (see section 4). There is however some room for specific question that could be utilized by the partner to systematically collect feedback about the service. The pilot testing

will in addition generate experiences, ideas and recommendations that could be used by the regional partner to push on the development of the service.

3.1 Stage 1 Preparation

The aim with stage 1 is to set up and prepare the living lab. It consists of a set of tools to support the regional partner to design and organize the pilot testing (stage 2) and pilot evaluation (stage 3).

3.1.1 Tool 1.1 – Determine the conditions for the living lab process

Conditions

Aim: in order to be able to set up and plan the living lab process in terms of size (the number of participants), location (where the testing is done) and time (when is completed) the living lab coordinator has to determine the conditions available for the living lab. Pilot test conditions are defined as:

1) Number of devices available for the test
2) Money available for the test
   a) personnel
      i) Internal/external resources available to prepare the living lab
      ii) Internal/external resources available to operate the living lab
      iii) Internal/external resources available to evaluate the outcome
   b) marketing
   c) gifts
   d) location
3) Ability available for the test
   a) ability needed for pilot test preparation
   b) ability needed for pilot test operation

The **number of devices** (iPhone/Android) available for the pilot test delimits how many participants (tool 1.2) that could be involved in the test utilizing a device lent by regional partner. It also conditions the recruitment of participants (tool 1.4). If no devices could be lent from the regional partner to participants for the pilot tests, this restricts recruitment, as participants with devices willingly to use their own devices during the test then must be recruited.

Money available for the test conditions the living lab process in terms of personnel, marketing, gifts and location. The regional partner has to determine how much money that the regional partner can use for internal and/or external personnel to set up and operate the living lab process (this conditions the level of ability available for the test, see below). Participants in the test seldom recruit themselves, consequently the regional partner has to determine how much money that they can use to market participation towards potential test users. In addition to marketing, the regional partner has to determine the budget for gifts that incentives participation, as well as potential costs for locations needed to run the living lab process.

Ability available for the test conditions how stage 1 and 2 should be organized. Ability is defined as the competence and experiences that the regional partner has for running the living lab process. Ability is the sum of internal and external personnel resources available for preparing, operating and evaluating the pilot test. In order to determine the ability needed in the pilot test team, the regional

partner should 1) analyze the objective given for the pilot evaluation (see above), and 2) determine what ability, internal and/or external personnel resources, are needed to prepare (tool 1.2 to tool 1.5 below) and operate a pilot test (tool 2.1 and 2.2 below) that reach this objective. E.g. if the ability available within the regional partner is determined as inexperienced then this means that the regional partner should set up and operate a modest pilot test in order to ensure that the pilot test becomes a success, or add if money are available for external resources use these to increase the ability in the test team operating the living lab. Example of competences needed for operating a living lab is

- Stage 1
  - Living lab management
  - Recruitment of users
  - Information material design
  - Device preparation
  - Pilot test design
- Stage 2
  - User support
  - Test operation
  - Interview
  - Focus group facilitation
  - Documentation

Procedure:

Step 1: Review how many devices that are available

Name of pilot service to be tested	Implemented in OS	No. of iOS devices	Device model	No. of android devices	Device model
<name of service>	<iOS *or* Android *or* web>	<no.>	<name of model of device>	<no.>	<name of model of device>

Step 2: Outline budget for pilot test

Resources available

Budget item	€
Amount for internal personal resources	
Amount for external personal resources	
Amount for marketing/recruitment	
Amount for retaining activities	
Amount for location/test expenses	
[…]	
Total:	**xxx**

Estimated costs

Cost item	€
Preparation	
Recruitment	xxx
Information material	xxx
Management	xxx
[…]	
Total preparation:	**xxx**
Pilot test	
Management	xxx
Gifts	xxx
Test facilities	xxx
[…]	
Total pilot test:	**xxx**
Evaluation	
Data analysis	xxx
Reporting	xxx
[…]	
Total pilot test:	**xxx**

Step 3 Analyze the ability that the regional partner has to set up and perform the pilot test

Stage	Activity	Do we have available internal ability within the organization to perform the activity [yes/no]	If no, do we have available external resources to fill this ability gap [yes/no]
Preparation	Recruitment		
	Information material		
	Management		
	[…]		
Pilot test	Management		
	Focus group facilitation		
	[…]		
Evaluation	Data analysis		
	Produce report		
	[…]		

Output: clarified conditions for design and operation of the pilot test in the region:

1. The number of devices available to be lent to participants.
2. A budget outlined for the pilot test including resources available and planed expenses for the pilot test.
3. An analysis of the ability that the regional partner to setup and run the pilot test is defined.

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3.1.2 Tool 1.2 – Plan living lab size, target group, location and timeline

Size, location time

Aim: in order to facilitate cross-national comparison and support the design of the living lab the target group for the lab should decided, as well as its size (in terms of participants, where the pilot test is located and the timeline for the test.

Procedure: the living lab basics should be planned following a four step process.

Step 1 – define the target group for the lab based on the persona used to develop the pilot service. If multiple target groups should be involved in the lab and/or services, then add rows.

Name of pilot service to be tested	Persona used to develop service	Target group in the pilot test	[redacted]
<name of service>	<name of persona>	<name of target group>	

Step 2 – based on available devices to be lent to participants and available budget for the trial define the size of the pilot test.

Name of pilot service to be tested	Persona used to develop service	Target group in the pilot test	No. of participants in the pilot test	[redacted]
<name of service>	<name of persona>	<name of target group>	<no. of participants to recruit>	

Step 3 – state the location (target area) for the pilot test

Name of pilot service to be tested	Persona used to develop service	Target group in the pilot test	No. of participants in the pilot test	Target area for the pilot test	[redacted]
<name of service>	<name of persona>	<name of target group>	<no. of participants to recruit>	<name of target area>	

Step 4 – define the timeline (start and stop) when the pilot test should be operated. If the lab involves multiple tests add rows table for each time line.

Name of pilot service to be tested	Persona used to develop service	Target group in the pilot test	No. of participants in the pilot test	Target area for the pilot test	Pilot test time line	
<name of service>	<name of persona>	<name of target group>	<no. of participants to	<name of target area>	<start>	<stop>

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			recruit>			

Output: clarified plan for the pilot testing:

1. Defined target group(s) (based on the persona(s)) for the pilot testing.
2. Defined size of participants (i.e. recruitment goal) for the pilot testing.
3. Defined area where the pilot testing should be operated.
4. Defined time line(s) for the pilot testing.

An example

Name of pilot service to be tested	Persona used to develop service	Target group in the pilot test	No. of participants in the pilot test	Target area for the pilot test	Pilot test time line	
Easy traveling	*Ebba (worker)*	*Daily commuters*	*30*	*Workers and students Lindholmen Science Park*	*March 15 2014*	*March 30 2014*
	Simon (student)		*15*		*March 20 2014*	*April 10 2014*

3.1.3 Tool 1.3 – Design information material

Information material

Aim: this tool aim to support the regional partner to develop information material for the different stages in the living lab (see figure 2).

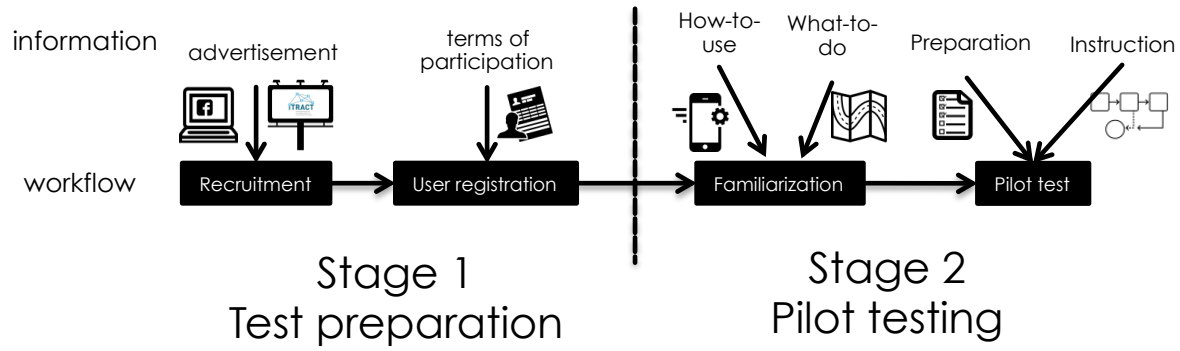

Figure 2. Information need in stage 1 and 2

Information material is needed at different stages during the living lab. The language in the material should be the local language in the region (however as the project is European translated versions of the material should be available in order to facilitate cross-region collaboration and the project report).

In order to recruit participants **advertisement material** is needed in different formats (e.g. flyers, social media, traditional advertisements) based on recruitment strategy used. However the main content in the advertisement can be reused regardless of form. The main content in the

advertisement is the core message from the regional partner that will trigger a potential participant to participate.

Figure 3. Example of advertisement material used in the EU project SUNSET

In the EU Project SUNSET the core message used in the Gothenburg Living Lab to recruit users was defined a question:

"Do you want to make everyday travel smarter?"

The Gothenburg Living Lab was aimed toward daily commuters in the age span 20 – 55 years. The core message was designed to trigger persons from this target group to join the living lab and participate in different pilot tests similar to the once that will be offered in ITRACT. This core message was used in social media, flyers, news paper advertisements and presentations. In order to prepare for marketing the living lab, each regional partner has to define the core message for the service or the services that should be tested.

Terms of participation are the second information item that has to be designed by the regional partner in order to organize the living lab. In this material the terms for participating in the trial is explained for the interested participant. In these terms the trial should be explained for the user, as well as his/hers role in the trial. If the service collects privacy-sensitive material this should be explained in the terms as well as when and how the participant can leave the trial if he/she wants to. In SUNSET a detailed terms of participation together with a rigorous privacy policy was developed as the nature of the service tested was privacy-sensitive. The regional partner could use the terms from this project as inspiration but has to adapt them to the trial situation in the specific region:

Example of terms of participation: http://www.tripzoom.eu/portal/reg-consent.php?source=register

Example of privacy policy: http://www.tripzoom.eu/portal/privacy.php

The core message with the service, implemented in diverse marketing measures, together with the terms of participation is used when participants are recruited to the living lab during stage 1 (see

figure 2). When the familiarization phase in stage 2 commence the users involves needs information about **how-to-use** the service as well as **what-to-do** during the familiarization phase. A how-to-use guide is a simple overview of the functionality of the service. By using this guide the participants should be able to launch the service and understand its functions. A what-to-do guide is a simple roadmap instructing the users how they should use the service during the familiarization phase. It should be based on the test that will end stage 2 so that the users through the usage prepare themselves for the participation of the trial.

Additional information material for the second stage could be specific **preparation material** that the users should read before the trial as well as **instructions** that the test leader uses to coordinate the trial completed stage 2.

Procedure: Step 1) based on the defined target group, specify a core message to be used to attract participants to the lab. Step 2) utilize this core message in tool 1.4 (below) to set up the recruitment plan and the recruitment measures for recruiting users to the lab. Step 3) Analyze the service in terms of complexity and privacy-sensitive data collected. Step 4) use this baseline to develop a suitable terms of participation for participating in the living lab. If the service collects privacy sensitive data (for example users travel behavior) and records this, then also develop a privacy policy for how data is collected and stored within the project and match this policy towards the rules and regulation for data privacy in the region. Step 5) Develop a basic guideline for how to use the service describing the functionalities in the service, how the service is operated and how the user should enter the familiarization phase. Step 6) Develop a simple roadmap for what the users should do during the familiarization phase so that they prepare for the trial that completes the second stage. Step 7) if needed produce preparation material to the users informing them about the trial as well as instruction material to be used by the test leaders to guide the participants during the trial.

Output: clarified information material for different stages in the lab

1. Core message for recruiting users
2. Terms of participation (and privacy policy)
3. List of registered participants
4. Guidelines how-to-use the service
5. Roadmap for what-to-do during the familiarization phase
6. Preparation material prior to the trial
7. Instructions to be use during the trial

An example of list of registered participants

Name	Address	Gender	Age	Device	Informed consent to participate	[additional columns]
(Name of participant)	(Participants address)	(M/F)	(Years)	(Owned / Borrowed)	(Yes / No)	[…]

3.1.4 Tool 1.4 – Recruit users

Recruitment

Aim: pilot testing requires users. Based on

1. the selected persona for the pilot,
2. resources available for recruitment
3. the ability within the team to organize the trial

the regional partner should design a recruitment plan and recruit sufficient numbers of users to the lab utilizing different channels for recruiting. In order to attract proper users, a core message (see above) should be used to coordinate the recruitment work. In the table below four recruitment channels are described. Depending on available resources and ability within the team, the experience from other EU-projects is that a recruitment plan utilizing multiple channels is the best to use in order to attract users to a living lab. However different channels have different strengths and weaknesses. Face-to-face recruitment means that users are recruited by manually contacting potential users in order to attract the to the lab. It is relatively cheap and it creates also the possibility to build up expectations and thrust within the recruited users. A major weakness with this measure is that it is time consuming.

Social media is popular to use. If used right it is an efficient channel to recruit certain target groups to the lab. These target groups however must already use social media and hence have incorporated twitter/facebook in their everyday life. Two important weaknesses to tackle if this measure is selected needs to be understood: 1) if the service does not meet expectations, then the social media channel could be used to discredit the service and consequently damage the living lab. These processes are very hard to control or manage. 2) social media marketing is now silver bullet and also often render high costs in order to be efficient.

Use of proxy organizations means that the project creates one or several alliances with partners outside the project in order to access specific target groups and receive help from these proxy organizations to recruit users (for example elderly support organizations, student unions etc.). The risk with this measure is that you are in the hand of the proxy organization and their ability to attract users to the project. The lack of control can result in that the proxy organization promise to support however does not allocate needed resources to execute the task on a level needed to fill the lab with users.

The last measure is traditional media; in order words, TV, radio, bus commercial, advertisements in newspapers etc. This is a measure that has the potential to have a high impact across different target

groups. However it is often a very expensive channel to utilize which hamper the regional partners ability to repeat the advertisements to a level which fills the lab with enough participants.

Recruitment measures	Strength	Weakness
Face-to-face recruitment (using for example flyers)	- Possibility to build rapport - Cheap	- Time consuming
Social media marketing	- High impact (for certain target groups)	- If the service does not meet expectations social media marketing can backfire - No silver bullet
Use of proxy organization	- Utilizes existing relationships - Access to specific target groups	- You are in the hands of the proxy organization - No incentives for proxy organizations to recruit users
Use of traditional media	- High and wide-ranging impact	- Expensive

Procedure: 1) analyze the financial resources available and the ability within the team to perform user recruitment, 2) with the result from step 1 as base, determine which measure(s) that is appropriate to use in order to recruit users to the target groups defined for the service that should be tested, 3) write up a plan for recruitment specifying when and how to recruit users. 4) utilize the plan and resources available to recruit users to the lab.

Output: this tool will provide:

1. a recruitment plan, which in turns will provide
2. users to the living lab.

3.1.5 Tool 5 – Technical and test preparation

Technical and test preparation

Aim: as a final step in the preparation of the pilot, the service should be installed on the technical devices made available to the users. These devices should then be provided to the users and the users should provide a receipt that they have received the devices. A simple database/register over the users in the lab should be designed with overall information about

1. Their name and contact information
2. Information if they have borrowed a device, or not

In addition the second stage of the trial should be defined in this step (the familiarization phase and the test phase) (see section 3.2 below) and the evaluation questionnaire (stage 3) should be prepared and made ready to be used in the test stage.

Procedure: step 1) install the service on the technical device, 2) organize the lending of the device to users, 3) register the users name, contact information, and if he/she have borrowed a device or not,

4) provide the user the how-to-use guidelines and the what-to-do roadmap. 5) prepare the test in stage 2 and the evaluation questionnaire to be used in stage 3. 6) initiate stage 2.

Output: this tool will

1. Provide installed pilot services on devices,
2. Provide devices to users
3. Generate a record of each user
4. Provide the how-to-use guidelines and what-to-do roadmap to the user
5. Generate a prepared test script that governs stage 2
6. Generate a final questionnaire that governs stage 3
7. Launch stage 2

3.2 Stage 2 Testing

Introduction: after the preparation stage it is time to start the interaction and collaboration with users. Depending on the type of trial you choose to use the steps below will be somewhat different. This is the stage when you gather experiences, suggestions and feedback from real users. It is important to note that this could be the last time to get customer and user feedback before the app is released to the public.

Familiarization

3.2.1 Tool 2.1 – Familiarization

Aim: during this step the users uses the service for a period of time (example a week) in order to get to know the service and its function as well as the hardware/device. This is especially important if the users have borrowed the device from the ITRACT project. The purpose is to prepare the user for the trial (see tool 2.2), which is a specific activity in the testing stage. Depending on the individual knowledge of IT in general and more specific apps and tablets/smart phones, this stage could vary to a great extent.

Procedure: It is advisable to have an individual conversation with each and every one of the recruited users in order to make sure to set up the familiarization step in a way giving the users enough confidence and knowledge of the device and the app in order for the trial to be as successful as possible. If the user is able to install apps and frequently uses apps there is no need for further familiarization of the device and it is now time for the user to start get familiar with the app. Provide instructions on how to install the app and inform the user of when to get in touch or meet again. If the user is unfamiliar with apps it is recommendable to book a time when you meet and teach the user how the device and the app works. It is likely this type of user don't own a device by themselves making it suitable to hand over the device being used in the familiarization stage for borrowing in the next stage.

Output: prepared users with basic knowledge about the service and the device.

3.2.2 Tool 2.2 – Trial

Aim: during this step the users, during a specific event, test the functionality, ease of use and usefulness of the service in order to be able to fill in the evaluation questionnaire and/or in-depth

interview (with project and partner questions (see section 4)). The regional partner has to decide which trial procedure to use in order to get the most valuable feedback from the users.

Procedure: we suggest using one (or several) trial(s) listed below. Depending on the type of service, target group and resources available the app is tested during a period of time and then followed by collecting valuable insights, thoughts and perceptions of the app.

Real life test

1. "Real life setting": In a real life setting the user test the service in her/his real life situation. Via a test script or instructions sent out via email or SMS the user tests different functions of the service and document the experiences in a test diary. The regional partner has to develop the test script/plan for the test, decide and prepare when test instructions should be delivered to the user, and prepare the diary where the user should document the experiences.

Strengths:

- The service is tested in-situation
- Feedback is provided when users experience the functionality
- The value of the feedback is high

Weaknesses

- The control of the test is low
- Increased risk of drop out
- Time consuming process for the users to documenting the results

Lab test

2. "Lab test": In the lab test the user is invited to a test event where the user is given a set of tasks by the regional partner (acting as a test leader) to complete. The test script is provided by the regional partner to the user and the user completes the tasks during the event. The regional partner observes the user and documents his/hers experiences when he/she completes the tasks. The regional partner has to plan the event, prepare the test script (with tasks), invite the participants, be part of each test and document the experiences.

Strengths

- The control of the test is high
- The results will be documented
- Low degree of drop out

Weaknesses

- The service is not tested in real-life situation
- The value of the test beyond feedback about specific functionality is low
- The test requires experienced test leaders

Focus group test

3. “Focus group”: the user receives a task during the familiarization phase, which the users should complete and reflect upon. The users are then invited to a focus group event where the regional partner acts as a moderator to stimulate the participants to discuss experiences, thoughts, ideas regarding task and the service as a whole. The regional partner has to design the task, prepare the focus group, act as a moderator, and document the results.

Strengths

- The group discussion can foster insights richer than individual comments
- The process might be perceived as less time consuming than the other tests
- The moderator can facilitate the discussion towards ITRACT important topics

Weaknesses

- The focus generates a lot of unstructured results which must be systemized by the regional partner
- The test type is vulnerable as it is a one-time event
- The event requires an experienced and dedicated moderator

Output: the trial regardless of type should generate experiences regarding the services as base for the users to complete the questionnaire provided in section 4. All testers should complete this questionnaire at the end of the testing stage. In addition, the regional partner through the experiments receive immense understanding about the value of the service which the regional partner could use to further develop the service as well as develop the service as a business.

Tasks and queries for this project step (checklist):

(Please make use of this checklist to ensure a proper project course!)	**completion date**
Mobilizing test users, equipping them with necessary hard- and software (licenses), instructing them for pilot testing and running pilot exemplary for demonstration reasons. Outcome: Loaded the completed App to the iPhones of all ticket inspectors. A short tutorial on the use of the App was given to them.	21.03.2013
Offering helpdesk for pilot user (1. leader of pilot, 2. member of pilot development group, 3. WP4 helpdesk) and equipping user with necessary contact details. Outcome: Feedback was collected thru our contact person at the bus company.	21.03.2013
Asking pilot user from time to time for intermediate review reports (verbally or in written form). Outcome: The evaluation form below (in German language) was given to the ticket inspectors.	25.04.2013
Using intermediate reports from users for modification and improvement of pilot. Performing changes simultaneously. Testing changes. Implementing the results in the running pilot. Outcome: Long term feedback from the ticket inspectors where collected and used to create an improved second version of the App. The App was completely rewritten to run under iOS7	12.08.2014
During pilot testing: informing stakeholders (e.g. ITRACT community) about intermediate results and how the pilot is doing. Making use of twitter, newsletter, emails, ProjectPlace etc.. Outcome: Progress was shown at the transnational partner meetings of ITRACT and documentation was uploaded to ProjectPlace	12.08.2014
Stopping the pilot testing phase. Sharing, retrieving and analyzing questionnaire (see 4. Pilot evaluation). Outcome: From the beginning of pilot testing the App was in regular use by the ticket inspectors. By now the second version is in regular use.	12.08.2014
Completing this document for documentation reasons. storage name: Add abbreviations of mobile applications the pilot consists of to document name (e.g.: Organizational model for pilot development R2 V4.doc) storage location: → ProjectPlace → Deliverables per WP → WP5 → Organizational Model for pilot development --> Pilots Outcome: Uploaded final document to ProjectPlace	20.10.2014
Presenting results to - ITRACT community - other stakeholders (user group, local government, local transport companies etc.)	date

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using ProjectPlace, newsletter, press etc.. Outcome: Click here for typing!	

Comments:

Click here for typing!

4. Pilot evaluation (English language)

Questionnaire*) relating to use, usability and costs of pilot:

Questions → to be answered by pilot users	**answers** 1: excellent 2: good 3: satisfactory 4: adequate 5: poor 6: unsatisfactory
1. How convincing does the pilot meet your expectations in general?	1 2 3 4 5 6
2. How convincing does the pilot meet your demands concerning the features you need?	1 2 3 4 5 6
3. How do you evaluate the performance and the speed of operation of the pilot!	1 2 3 4 5 6
4. How are the pilot's features are realized in terms of usability - is it user friendly?	1 2 3 4 5 6
5. Is the pilot's graphical user interface reduced to the essentials and aesthetic in design?	1 2 3 4 5 6
6. Is the pilot suitable to be used in your working day?	1 2 3 4 5 6
7. Does the pilot ease the use of public transport system?	1 2 3 4 5 6
8. Is the pilot able to convince people using public instead of private transport?	1 2 3 4 5 6
9. Click here for typing additional individual question!	1 2 3 4 5 6
10. Click here for typing additional individual question!	1 2 3 4 5 6
11. Please name further features of the pilot that you would like to be realized!	
12. Would you spend money for using the pilot to ease travelling with public transport?	Yes No
If you have answered question 12 with "yes": 12.1 How much would you spend approx. once for buying the pilot (service)?	
12.2 How much would you spend approx. monthly for using it?	
Comments: Missing informations: Residence, visited school	

*) Print questionnaire and ask pilot users for feedback!

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4. Evaluation des Piloten (German language)

Fragebogen*) zur Anwendung, Bedienerfreundlichkeit und Kosten des Piloten:

Fragen → zu beantworten durch Test-Nutzer	**Antworten** 1: sehr gut 2: gut 3: befriedigend 4: ausreichend 5: mangelhaft 6: ungenügend
1. Hat die Anwendung Ihre Erwartungen im Allgemeinen erfüllt??	1 2 3 4 5 6
2. Wie überzeugend sind in der Anwendung die Funktionen umgesetzt, die Sie nutzen?	1 2 3 4 5 6
3. Wie beurteilen Sie die Arbeitsgeschwindigkeit der Anwendung?	1 2 3 4 5 6
4. Wie beurteilen Sie die Bedienerfreundlichkeit der Anwendung - ist sie einfach handzuhaben?	1 2 3 4 5 6
5. Ist die graphische Benutzeroberfläche einfach aufgebaut und übersichtlich?	1 2 3 4 5 6
6. Können Sie sich vorstellen, die Anwendung täglich bei Ihrer Arbeit zu nutzen?	1 2 3 4 5 6
7. Vereinfacht die Anwendung die Nutzung des Öffentlichen Personennahverkehr?	1 2 3 4 5 6
8. Vermag diese Anwendung Personen zu überzeugen, den ÖPNV vermehrt zu nutzen?	1 2 3 4 5 6
9. Click here for typing additional individual question!	1 2 3 4 5 6
10. Click here for typing additional individual question!	1 2 3 4 5 6
11. Gibt es weitere Funktionen, die in der Anwendung umgesetzt werden sollten?	
Kommentar: Fehlende Angaben: Wohnort, besuchte Schule	

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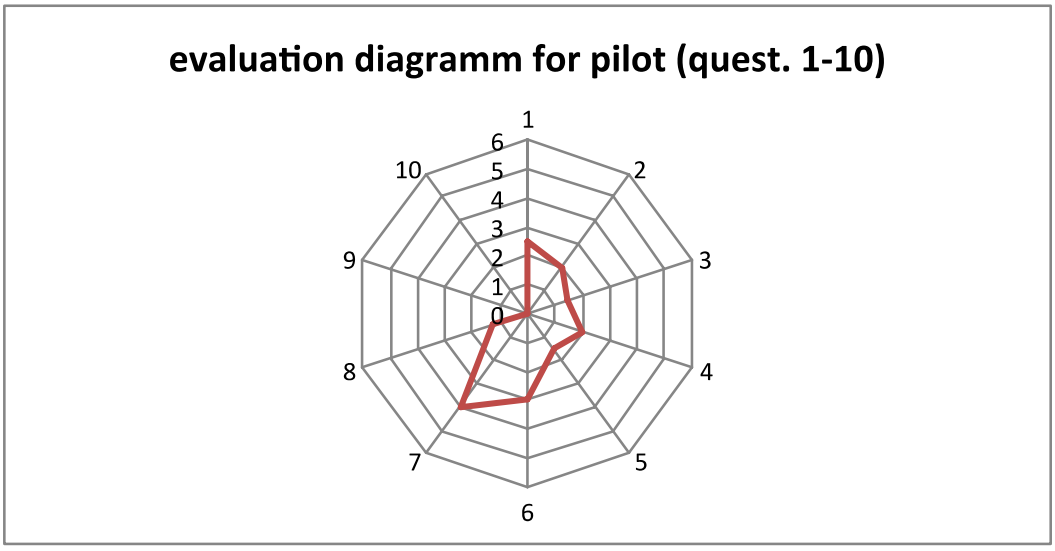
Evaluation sheet of questionnaires (question 1-10):

question number	average value of answers
1	2,5
2	2
3	1,5
4	2
5	1,5
6	3
7	4
8	1,3
9	0
10	0

Double-click: Fill in the arithmetic average values of all answered questionaires for question 1-10 in the yellow fields (overwrite the given example values) !



statistical data concerning the survey:

The evaluation was conducted with all six ticket inspectors at the Stadtwerke Wilhelmshaven in April 2013. Two of them returned the evaluation sheet. The main complaint was the missing of the place of residence from the pupils and the visited school. Since this data was not incorporated into the database we decided to wait before changing the database format. This was done starting the next school year in summer 2014. The second version of the app included the requested information.

Evaluation sheet of questionnaires (question 11 and 12) - summarize users answers:

Question 11 - Further functionalities of pilot:
See above

Question 12 - Spend money for pilot use (service):
number of "YES": Click here for typing! number of "NO": Click here for typing!

Question 12.1 - Spend money once for buying pilot (service) - average value:
Click here for typing! €

Question 12.2 - Spend money monthly for using pilot (service) - average value:
Click here for typing! €

Comments:
Click here for typing!

Leader of Pilot: Describe your own experiences with the pilot and its testing phase with a special focus on the pilot's use in the future:
Click here for typing!

Transition of Pilot Development to context of WP6 "Evaluation and Strategy Development"

What Critical Success Factors (s. below) played a role in deployment of the pilot? (In order to assess the international transferability of the pilot, please indicate which factors played a critical role in the success or failure of the pilot. It is an open question and you are free to indicate a Critical Success Factor (CSF) or multiple, but the list below might give you some inspiration.) **--> What factors were decisive in the pilots success?** **--> What factors were decisive in the pilots failure?**
The application was developed in close collaboration with the local bus company. After successful development and demonstration of the finished app the local bus company equipped all ticket inspectors with iPhones. Because the UI of the app is relatively simple it can be easily translated/transferred to other ITRACT partners. However, the database entry and card printing side was specially tailored to the workflow of the local bus company. This was a huge factor in the success of the app. Critical success factors where: - close collaboration with the local bus company - simple UI with high usability - special consideration of privacy concerns

Possible Critical Success Factors (CSF) are:

- (mobile) broadband coverage throughout the area
- National/regional law and policy setting
- Budget
- Usability of pilot technology
- Service level in the area
- User persona (profile); commuter, day visitor, tourist, etcetera
- Knowledge of users
- Skills of users
- Attitude of users
- Aspirations of users
- (Reluctance of users)
- Physical mobility of users
- Smartphone and internet usage among users ('digital divide')


definition
1
implementation
2
testing
3
evaluation
4