

D8.4

Setup of the experiment in the Living Labs

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Overview

Abstract

This document presents the planned methodology and the research questions for the upcoming pilot studies. The aim of the USEMP pilot studies are to test and evaluate the DataBait tools in collaboration with all project partners and end-users as they are implemented into a Living Lab approach.

Project Information

USEMP – User Empowerment for Enhanced Online Presence Management

Grant Agreement Number: 611596
Funding Scheme: Specific Targeted Research Project (STREP)
Work program topic: Objective ICT-2013.1.7 Future Internet Research Experimentation
Project Start Date: 2013-10-01
Project Duration: 36 months

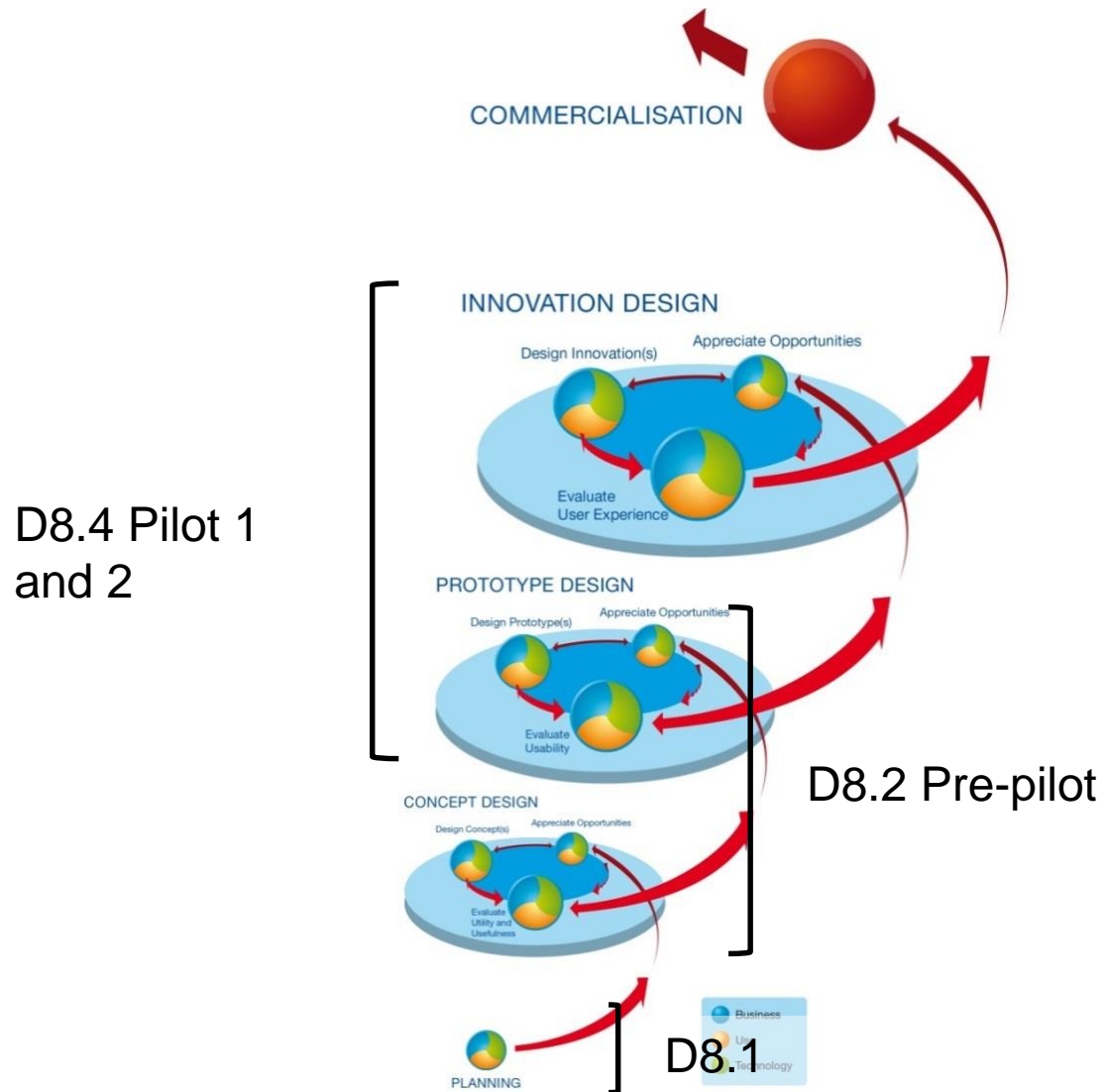
Deliverable Information

Work Package 8: Pilot Studies and Evaluation
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FormIT



2. Situating D8.4 in FormIT

User
evaluation of
pilot 1

- *C2 Appreciating opportunities* based on D8.2 identified user needs
- *C2 Prototype design* is almost finished by technical partners
- *C2 Usability evaluation, Pilot 1*: How does the design answer to the requirements, needs and values the prototype has been designed for? How can it be redesigned to better fulfil the needs?

User
evaluation of
pilot 2

- *C3 Appreciating opportunities*
- *C3 Design of final system*
- *C3 User experience evaluation*

5 principles of FormIT

- Value & sustainability
 - The goal of DataBait and USEMP is to build a sustainable environment for data disclosure in social media through increased transparency
- Influence
 - Users have been shaping and defining DataBait through each cycle
- Openness
 - Interaction with stakeholders and building on their insights, most clear for users
- Realism
 - DataBait is used on respondents' own profiles and disclosure behaviour and how this fits in their everyday context

Relevant I's for involvement

- Identify: our sampling strategy approaches end-users as social media users who care about their privacy and wish to advance research with regard to this privacy
- Involve: stakeholders reflect on DataBait and how it would be used in or affect their companies
- Integrate & implement: real world user needs will have to be integrated so that DataBait works in everyday life

2. User evaluation in Living Lab Research Cycle

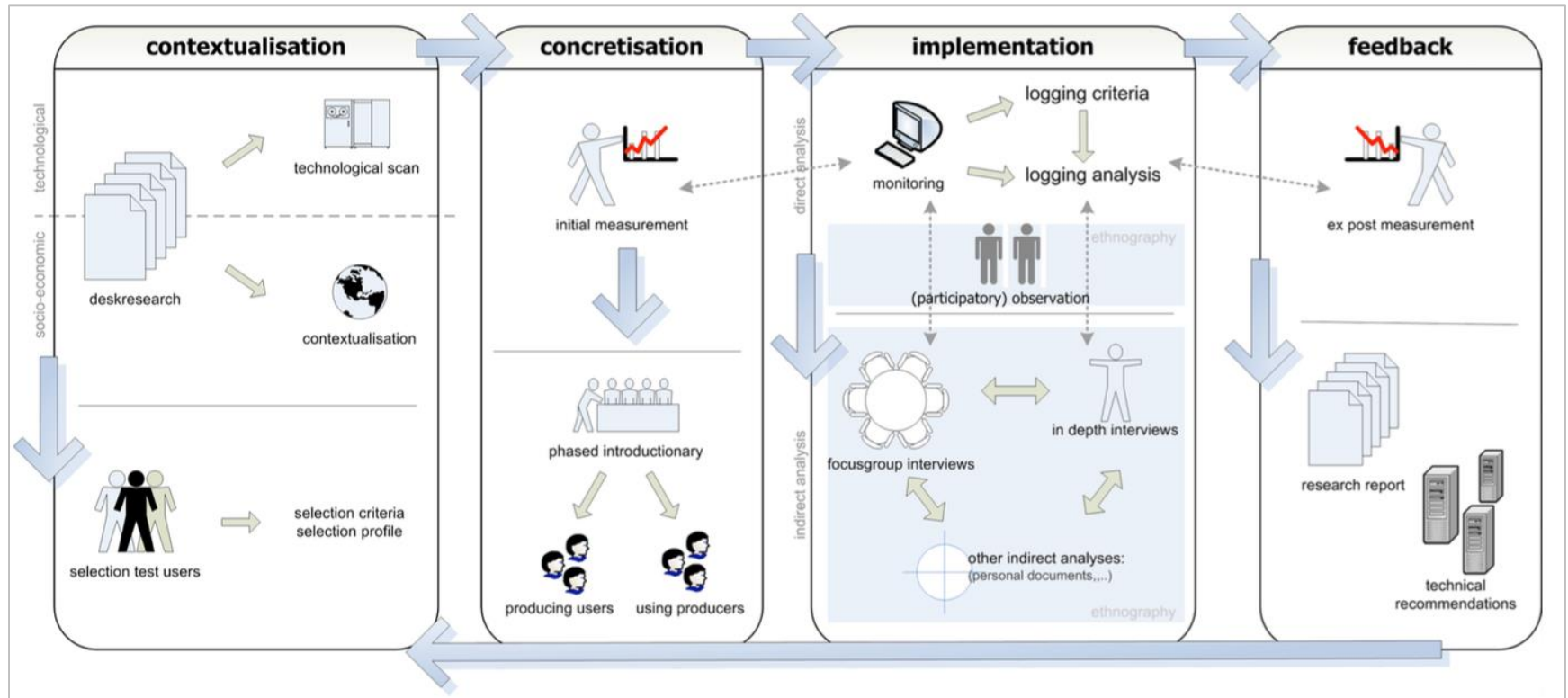
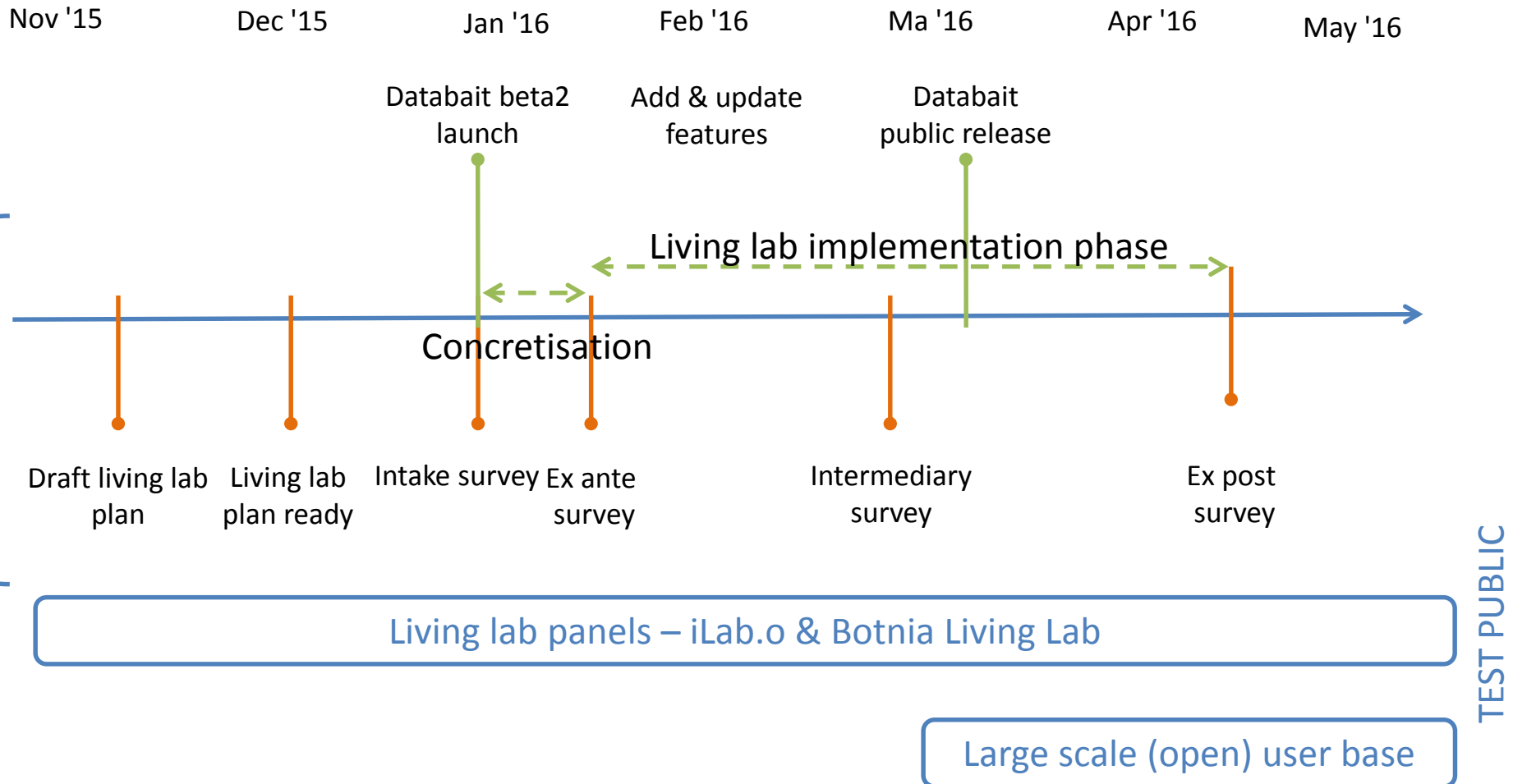


Figure 1: Overview of living lab research cycle (Pierson & Lievens, 2005, p.5)

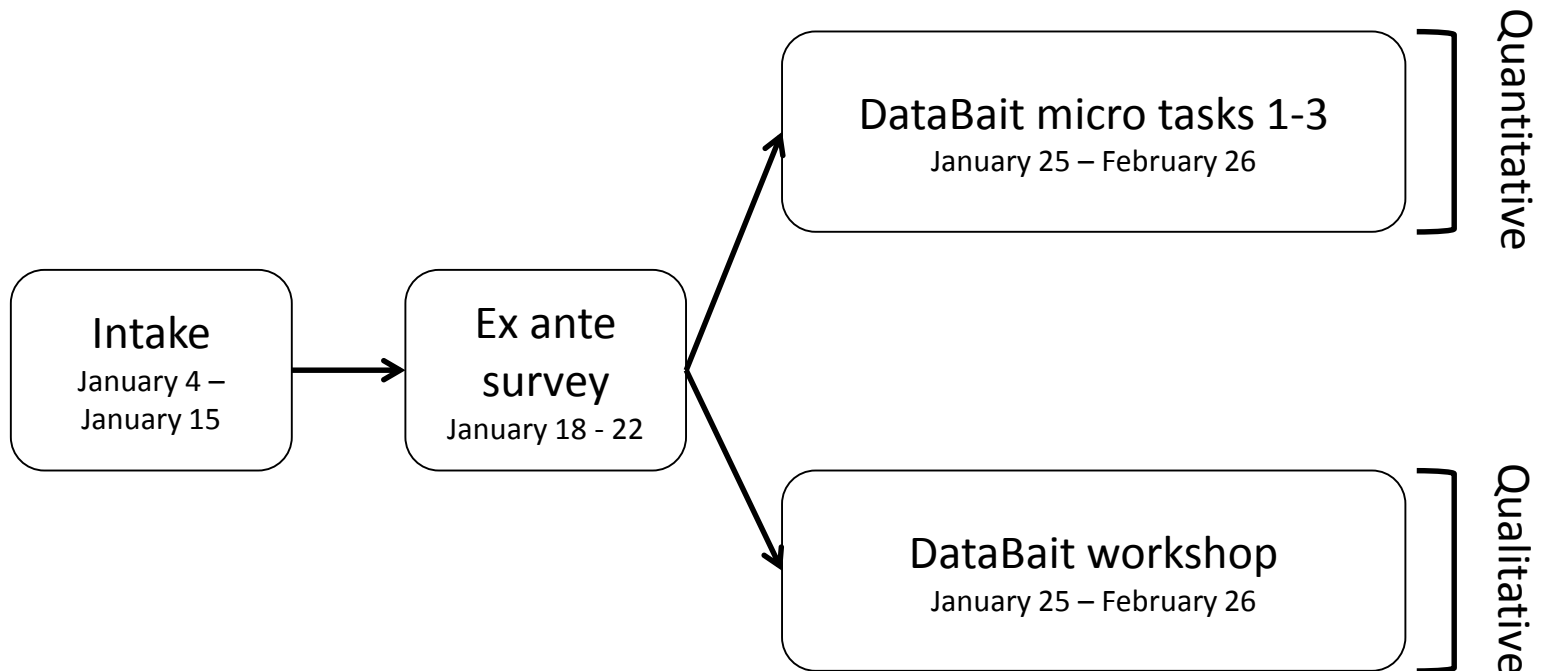
Living lab research cycle

- PHASE 1: Contextualisation
 - Definition of the research framework
 - Identification of eligible respondents/test public
- PHASE 2: Concretisation
 - Initial measurement before use of the technology
 - Focus on issues of awareness and privacy concern
- PHASE 3: Implementation
 - Monitoring of relevant actions
 - Survey and/or qualitative research
- PHASE 4: Feedback
 - Ex post measurement

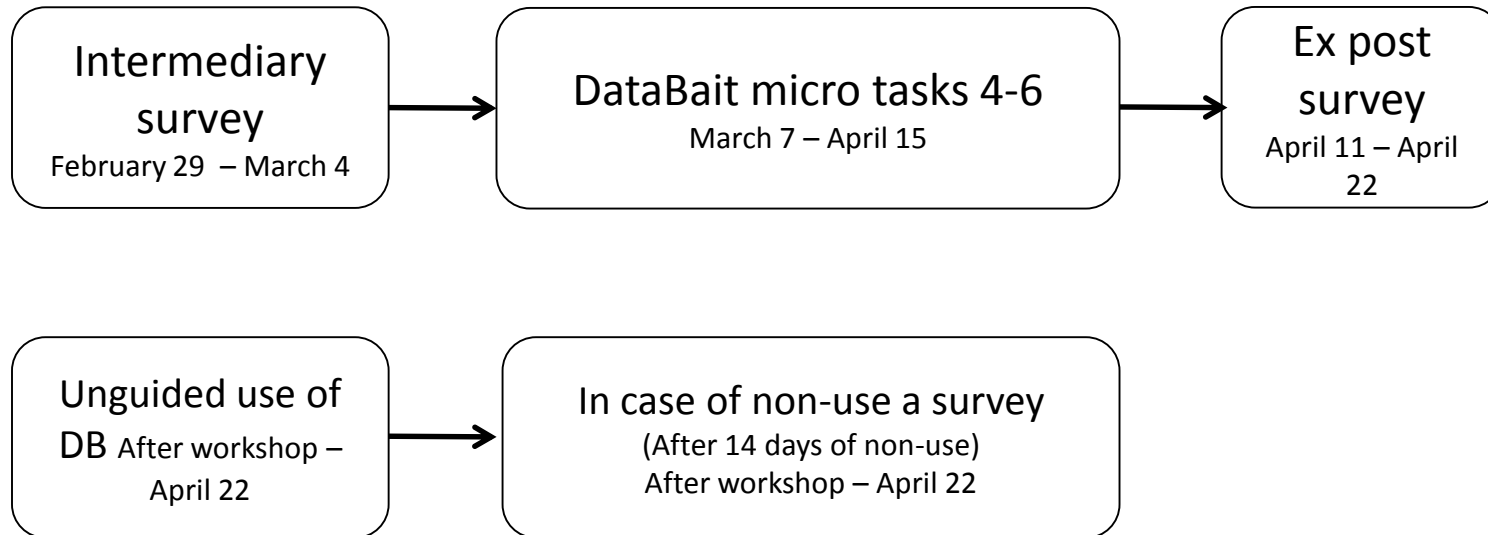
2. Application of living lab cycle to DataBait and timeline



Detailed timeline 1



Detailed timeline 2



The intermediary survey works as a first general evaluation of pilot 1, part 4 – 6 and the ex post survey are intended to evaluate changes implemented from February and onwards

2.2 Concretisation

Intake survey - criteria (for the qualitative and quantitative tracks)

- Current Facebook use
 - Disclosure behaviour: How often do you share on Facebook?
- Internet access at home
- Willingness to share Facebook Data
- Willingness to evaluate transparency-enhancing technologies
- Language criteria (Dutch, Swedish, English)
- Browser criteria (Chrome, Firefox)

Selection criteria

- Need to have posted content on Facebook in the past or recently
- Have internet access at home
- Are willing to share their Facebook data with our DataBait tool
- Language: Dutch, Swedish, English
- Have to use a browser compatible with our tool (Chrome or Firefox)

2.2 Concretisation (2)

Ex ante 1: Initial measurement before use of the technology (Ex ante survey) to understand the needs users have in the system (Appreciating opportunities)

- Theoretical criteria are analysed
- Context of respondent with regard to privacy awareness and privacy concern
- Ask in the ex ante survey about Information disclosure with regard to the different privacy dimensions (as analysed in D6.3)
- Ask in the ex ante survey about the perceived use of data by 3rd parties
- What actions have the respondents used in the past that have increased awareness, limited visibility (e.g. obfuscation, PET/PFA use, etc.)
- Ask in the ex ante survey about the sensitiveness with regard to personal data types
- General scales of privacy concern and awareness
- What tools does the respondent currently use to increase awareness or block tracking?
- Perceived skills and capabilities to control disclosure of data wrt disclosure dimensions
- Perceived skills and capabilities towards privacy statements and agreements

Overview of concretisation

- Timing:
 - Start January 4 end January 15
- Goals:
 - Gather insights on current theoretical concepts: privacy awareness, privacy concern, privacy behaviour and capabilities
- Methods:
 - Surveys

2.3 Implementation January 18 – April 15

- **In the implementation phase:**
 - Users test the tool and their relevant actions are monitored through use of surveys, monitoring and qualitative research tracks.
 - Two tracks where we actively research, qualitative and quantitative
 - One track to tie reported behaviour to observed behaviour, monitoring
- **What is researched?**
 - Data license agreement
 - My privacy
 - location leaks
 - concept detection in images
 - Brands detection
 - Third party tracker
 - Friends influencer
 - New updates from February (the changes of the innovation design phase)
- **Method**
 - Use scenarios to let users perform micro tasks in order to let them try parts of DataBait

Quantitative track

- 6 parts with a micro task of the week
 - Each start of a micro task is separated two weeks from the next to have time to remind users who forget to participate in time
 - Part 1 (January 25 – February 5)
 - Data license agreement
 - My privacy
 - location leaks
 - concept detection in images
 - Part 2 (February 8 – 19)
 - Third party tracker
 - Part 3 (February 22 – March 4)
 - Friends influencer
 - Part 4 – 6 (March 7 – April 15)
 - Updates in March that cannot be predicted now

2.3 Implementation Qualitative track

- Qualitative research track January 15 – February 15
- (workshops with micro tasks and focus group):
 - With a selection of users: 12-20 in each LL (two for the living labs during the implementation phase, and a next one in Amsterdam: April 22, 2016, <http://designandthecity.eu/>)
- Sample based on general sample criteria
 - Respondents are not part of the quantitative track
- Workshop: present and evaluate the different parts of DataBait and ask to use them through micro tasks

2.3 Implementation Qualitative track

- Research questions related to Drop-out
 - Define non-use:
 - Only used once, during implementation and then not for one month?
 - What are the reasons respondents stop using Databait?
 - What should be improved for this group?
- After 14 days non-use of DataBait we send an invitation to the non-use survey
 - What are the reasons respondents stop using DataBait?
 - What should be improved for this group?

2.3 Implementation Monitoring

Technical questions to be asked to HWC throughout the Implementation phase

- Can we log the following?
 - Trajectory and time it took to agree on data license agreement
 - Can be implemented and will be discussed further
- The number of sensitive items a unique user has at first use
 - Can be implemented and will be discussed further
- Last time logged in
 - Can be implemented and will be discussed further
- How is this output generated?
 - Can we link this output to individual respondents in our survey?
 - Can be implemented and will be discussed further
- Can we have embedded questionnaires for the quantitative track?
 - Must be asked at the next integration meeting

2.4 Feedback (intermediary and ex post survey)

In the last phase of the prototype design and innovation design phase, we gather feedback through the intermediary and ex post survey

- on the use of the DataBait tools concerning the following questions:
 - Did Databait increase awareness for what disclosure dimensions?
 - Where these disclosure dimensions accurately predicted?
 - How has DataBait influenced sensitiveness towards disclosure dimensions?
 - Did DataBait effect a change in disclosure dimensions?
 - Can we see this in our logs? Or should we ask this?
 - Was DataBait useful for its purpose: awareness rising?
- What did users think about the proposed sensitivity with regard to the different privacy dimensions?
- Was DataBait useful?
- Did respondents delete data? If yes what was disclosure dimensions were deleted and why?
- Was there data users could not delete, even though they wanted to?
 - Why was deletion not possible?

3. Communication Plan

- **A communication plan** needs to be fully developed in order to attract and secure the involvement over a longer period of time of suitable respondents.
 - **In accordance with the research tracks: Different phases**
1. **First phase: Intake mailing**
 - Large scale invitation, through email to:
 - Friendly users
 - Living lab participants
 - General public
 - This mailing entails:
 - **Research prototype:** expectation management of tool functionalities
 - Promise to deliver some **key insights** over time: what do other participants find sensitive information / privacy concern in Flanders/Sweden/upcoming improvements / ... → To convince participants that their voice matters
 - Short paragraph about how we will protect their data + link to information page
 - Link to **Intake survey:** (see slides concretisation) (In tool?)

3. Communication Plan

- **A communication plan** needs to be fully developed in order to attract and secure the involvement over a longer period of time of suitable respondents.
 - **In accordance with the research tracks: Different phases**
2. **Second phase:** confirmation mailing after concretisation
- Selected candidates will be notified
 - Link to registration page
 - Make this process as simple as possible to counter drop-off
 - **! Pre-pre-pilot: drop-off between agreeing and registering: 26%!**
 - Include participants in a DataBait **community**:
 - Link to Facebook page, and
 - Website for specific blogs
 - Promised incentives are made public:
 - Participation from start to end means chance to win a price for the quantitative track
 - Participants in the qualitative track will have a direct incentive

3. Communication Plan

- **A communication plan** needs to be fully developed in order to attract and secure the involvement over a longer period of time of suitable respondents.
 - **In accordance with the research tracks: Different phases**
- 3. Third phase: Tasks + Survey mailings (implementation phase)**
- Respondents receive mailings with micro tasks to test:
 - New and updated functionalities of DataBait
 - Updated workflows of the tool
 - Updated information pages
 - Respondents receive mailings with surveys to test change in:
 - Privacy awareness
 - (Claimed) privacy behaviour
 - Sensitivity of data points

3. Communication Plan

- **A communication plan** needs to be fully developed in order to attract and secure the involvement over a longer period of time of suitable respondents.
 - **In accordance with the research tracks: Different phases**
- 4. Fourth phase:** Feedback mailing (Feedback phase)
- After completion of one full research cycle respondents receive a feedback mailing:
 - Thanks for partaking
 - Research results
 - Press coverage
 - Invitation to a USEMP closing event: **members of the community** – drink
 - Incentives get distributed

4. Practical organisation

Contact for end-users

- Single point of contact:
 - Belgium: iMinds Living Labs (greet.pauwels@iminds.be) ?
 - Sweden: Botnia Living Labs (XX)
- One contact person for each partner can be found on the DataBait website:
 - CEA: Adrian Popescu
 - iMinds: Laurence Claeys
 - HWC: Noel Catterall
 - CERTH: Symeon Papadopoulos
 - LTU: Marita Holst
 - SKU: Katja de Vries

Internal communication

- Mailing
- Weekly Telco's: Every Wednesday afternoon
- End of week mailings: to sum up:
 - Accomplishments
 - Issues encountered
 - Follow up for the next week

5. Contingency plan

- The quantitative track will be dependent on development and will be updated accordingly in case of timing issues
- The qualitative track will respect the original planning
 - Since more can be steered if the prototype is less stable
 - Guaranteed data collection and feedback for the development of pilot 2

6. Bibliography

- Pierson, J. & Lievens, B. (2005) 'Configuring living labs for a 'thick' understanding of innovation', in Conference proceedings of EPIC 2005 (Ethnographic Praxis in Industry Conference), published by NAPA (National Association for the Practice of Anthropology) - Microsoft - Intel, US, 114-127
- *Sandelowski, M. (1995). 'Focus on qualitative methods: sample size in qualitative research revisited'. Research in Nursing and Health, 18, 179-183.*
- Ståhlbröst, A. and Bergvall-Kåreborn, B. (2008). Formit – an Approach to User Involvement. In *European Living Labs - a New Approach for Human Centric Regional Innovation*, edited by Schumacher, J. and Niitamo, V.-P. Berlin: Wissenschaftlicher Verlag