Technical simulation and pilot test report

Project Title:

FOSTERING CARE COOPERATIVES IN EUROPE BY BUILDING AN INNOVATIVE PLATFORM WITH ICT BASED AND AAL-DRIVEN SERVICES

PROJECT

Acronym: iCareCoops
Coordinator: SYNYO GmbH
AAL Project No: 214-118
Project Start: 1 March 2015
Duration: 34 months
Report Covers: 33 months
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DELIVERABLE

Number: D5.2
Lead partner: VIA
Work Package: WP5 Test
Date: 30 December 2017
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1   INTRODUCTION

This report contains detailed information about the test design, method, analyses and results of the three prototypes of the iCareCoops solution according to usability of the product, as well as about the types and number of end-users involved in testing the solution. It was created within the scope of tasks 5.2 *Development of a test design perform usability tests, feedback loops and validation surveys with selected end users* and 5.3 *Simulation and test of ICT-based and AAL-driven iCareCoops services in real scenarios with real end users*, aimed at creating feedback loops for iterative improvement of the iCareCoops solution and its provided services in conducting usability tests and interviews with real end-users of the solution. It is also within the scope of Objective 5: Implement, demonstrate and validate iCareCoops in a realistic pilot environment which strongly involves care cooperatives, informal and formal carers, care receivers and other relevant stakeholders considering their specific needs, workflows and requirements.

Chapter two contains a general introduction to the test design methods conducted throughout the testing of the iCareCoops solution. An overview on these multiple phases of testing – from paper prototype to prototype III – conducted throughout the project's lifetime can be seen in Table 1. Prior testing the electronic versions of the iCareCoops solution, a paper prototype was created and tested: Chapter three includes the test design and results of this paper prototype testing. The fourth chapter contains the design and results of the expert walkthrough conducted within the scope of a workshop at the AAL Forum 2016. Chapter four and five deals with prototype I, prototype II and prototype III usability test design and the results of these tests, conducted by experts, cooperative managers, care givers and care receivers. Finally, chapter 6 contains a conclusion of the usability tests (with a special focus on the last phase of testing, i.e. prototype III) and an outlook.

Table 1: Overview on the iCareCoops testing phases

Test Phase	Date	Involved end-users
Paper Prototype	February 2016	7 cooperative managers (Germany)
		5 care providers (Germany)
		8 care receivers (Slovenia)
Expert Walkthrough	September 2016	20 participants
Prototype I	November 2016	14 experts (Denmark)
Prototype II	February 2017	7 cooperative managers (Germany)
	January 2017	5 cooperative managers (Slovenia)

	April 2017	6 experts
Prototype III	September/October 2017	7 cooperative managers (Germany)
		5 cooperative managers (Slovenia)
		5 care givers (Slovenia)
		5 care givers (Switzerland)
		5 care receivers (Slovenia)
		5 care receivers (Switzerland)

In this report, different terms have been used that all cover citizens who are in need of care or help: Older adults, older adults in need of care, elderly in need of care, care receivers, service receivers, and senior users. Similarly, the following terms have been used for persons offering care or assistance to whom that are in need of care or help: Care professionals, care givers, health professionals, care service providers, service providers.

2 USABILITY TEST DESIGN

The usability tests conducted during the iCareCoops project were carried out in multiple iterations, each involving from seven to ten representative subjects form different user cohorts, as suggested by Nielsen & Landauer (1993). In addition, to get a wider range of insights, different test methods have been applied, depending on the needs and skills of the test participants. In their meta-studies on usability engineering, Jeng (2005) and Holzinger (2005) identified partially overlapping sets of test methods, which can be applied in iCareCoops testing as well. The following table gives an overview of the range of tests that can be selected from.

Table 2: Usability test methods identified by Jeng (2005) and Holzinger (2005) for potential use in iCareCoops testing.

Usability Test Methods	
Thinking Aloud	Field Observation
Questionnaire	Interview
Focus Group	Transaction Log
Card Sorting	

Usability is a multidimensional construct defined by the user, his or her task, the environment and the product itself (Jeng, 2005). Therefore, for every test iteration and test session, these features need be defined beforehand (ISO, 2006).

In order to evaluate the solutions usability, a set of usability criteria needs to be explored, that can be measured quantitatively or qualitatively. Common usability criteria found in scientific literature (Jeng, 2005) and technical standards are (ISO, 1998, 2006):

Table 3: Usability criteria defined in related literature and technical standards.

Usability Criterion	Measured as …
Effectiveness	Degree of task completion, percentage of tasks completed (9241-11)
Efficiency	Time to task completion, tasks completed per time frame, cost of completion (9241-11)
Satisfaction	Rating scale, voluntary usage frequency, frequency of complaints (9241-11)
Controllability	Interaction speed (9241-110)

Adaptability	Degree of individual adaption (9241-110)
Learnability	Number of learned functionalities, time to learn function (9241-11)
Memorability	Time to re-learn (9241-11)
Ability of self-description	Number of reference to external manuals, number of wrong input formats (9241-110)
Conformity with expectations	Number of misunderstandings, number of identified inconsistencies (9241-110)
Task suitability	Number of useless information pieces or process steps (9241-110)
Helpfulness	Number of requests for help (9241-11)
Affect	Emotions occurring during testing (Jeng, 2005)
Error Recovery	Time to recover from error (9241-11), number of steps to recover from error (9241-110)
Fault Tolerance	Number of recognized and reported errors (9241-11), percentage of understood reports (9241-110)

3   PAPER PROTOTYPE TESTING OF THE USER INTERFACE

In order to design the user interface according to the users' needs, a paper prototype test was conducted. The test plan follows the practical approach to usability testing defined by Rubin and Chisnell (2008, 67). The authors state that the value of the paper prototype or paper-and-pencil evaluation is the way it enables to collect critical information quickly and inexpensively. We describe our approach in the following sections.

3.1   Overall Goals and Objectives

The first iteration of usability testing aims to validate the interface design and should therefore be performed before actual coding or implementation of software. In the course of this test iteration we will gather baseline data about the overall **usability** and **ability of self-description** when using without any previous training. The goals are to

- assess the **overall usability** for user groups performing basic, common tasks;
- identify **obstacles;**
- verify early **assumptions** about the user groups derived from the focus groups;
- create a repeatable usability study **protocol.**

Research Questions

Based on the testing goals, the following research questions can be formulated:

1. How well does the interface support the user's tasks within achieving the goal?
2. How easily and successfully do users find the info they are looking for?
3. How well do users understand the chosen naming?
4. How closely does the software flow reflect the users thinking?
5. What obstacles prevent users from completing task?
6. What questions do users ask as they use the solution?
7. Which interface elements are problematic / helpful?
8. Which elements of the cooperative and personal profile are useful / missing?
9. What causes frustration / satisfaction among the users and about what feature?
10. How quickly does he learn how to use the solution?
11. What differences can be found between the user groups?
12. How do users conceive the solution?
13. Does it have value to them?

3.2   Usability Criteria

As paper prototypes are only illustrating the workflow and do not simulate the behaviour of a software solution completely, only some of the usability criteria mentioned above can be evaluated in these

tests. An example would be timing issues, which are essential for efficiency measures that can't be simulated properly with a paper prototype.

Therefore, the following usability criteria were measured during paper prototype testing:

Table 4: Usability criteria and measurement methods for iCareCoops paper prototype testing.

Usability Criterion	Measurement Method
Effectiveness	Number of tasks completed
Satisfaction	Visual rating scale, complaint count
Ability of self-description	Number of wrong inputs
Conformity with expectations	Number of identified misunderstandings, number of identified inconsistencies
Helpfulness	Number of active requests for help
Affect	Notable emotional reactions to usage

The measurement of these usability criteria is performed using the supporting documents provided in the Annex of this document.

3.3   Participant Characteristics

In WP2, three main end-user groups have been defined, and in D3.1, those have been modelled into personas. The three main groups we identified are cooperative managers, care givers[1] and care receivers[2]. Thus, the tests were carried out with three different user groups in two locations. One test session was performed with the members of Seniorengenossenschaft Riedlingen by SYNYO, exploring the usability for cooperative staff and managers in their working environment. The other session was carried out with older adults by ZDUS, investigating suitability of iCareCoops for service receivers in a home setting. We aimed to achieve a 50:50 gender split and cover tech-savvy as well as not so experienced users. Building on a mathematical model for usability testing (Nielsen & Landauer, 1993), Rubin outlines 4-5 users will expose 80% of user interface (UI) flaws (Rubin, 2008, P.72). We aimed to have between 5 and 10 participants from each user group.

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[1] Care givers are both care professionals and informal care providers. Hence, we use the term "care givers" throughout this deliverable.

[2] Care receivers is the term we chose to describe the group of older adults in need of care. Care is understood in a very broad sense, including not only health care, but other services such as transportation. Another term used to describe this group is "senior users".

3.4 Method

A time and cost-efficient way to accomplish the goals of the first testing iteration was the creation of paper prototypes (Snyder, 2003). Following the guidelines from Snyder (2003), these prototypes were created as Wireframe Designs in Balsamiq Version 3 and printed afterwards in grayscale (see Figure 1)

The paper prototype test iteration was mostly exploratory, because it was conducted at an early stage of the development cycle. Since the iCareCoops solutions only existed as high-level concepts, the test moderator interacted with the participants extensively. Sitting by the participant, the moderator could gather first hand impressions. Each user group tested different elements of the solution. Members of a user group received the same tasks. The order after the initial registration task was random to minimize learning effects. We collected data about success and error rates as well as qualitative data about the user's experience with the solution. The main method to be used in the paper prototype test was thinking-aloud testing. Thinking out loud requires the user to verbalize all thoughts while working with the system in order to give better understanding of their interpretation or potential misconception of the interface provided (Nielsen, 1994). The tasks to be performed by the subjects were deduced from the requirements explored in work package 2 and Tasks 3.1, covering features of the iCareCoops web solution prioritized in Task 3.2 with respect to the iCareCoops project aims. For some of the wireframes, participants in this session were allowed to indicate which fields they would use and which not. In addition, they were allowed to add ideas for further fields they were missing. Furthermore, a background interview assessed basic information about the participant before the test.
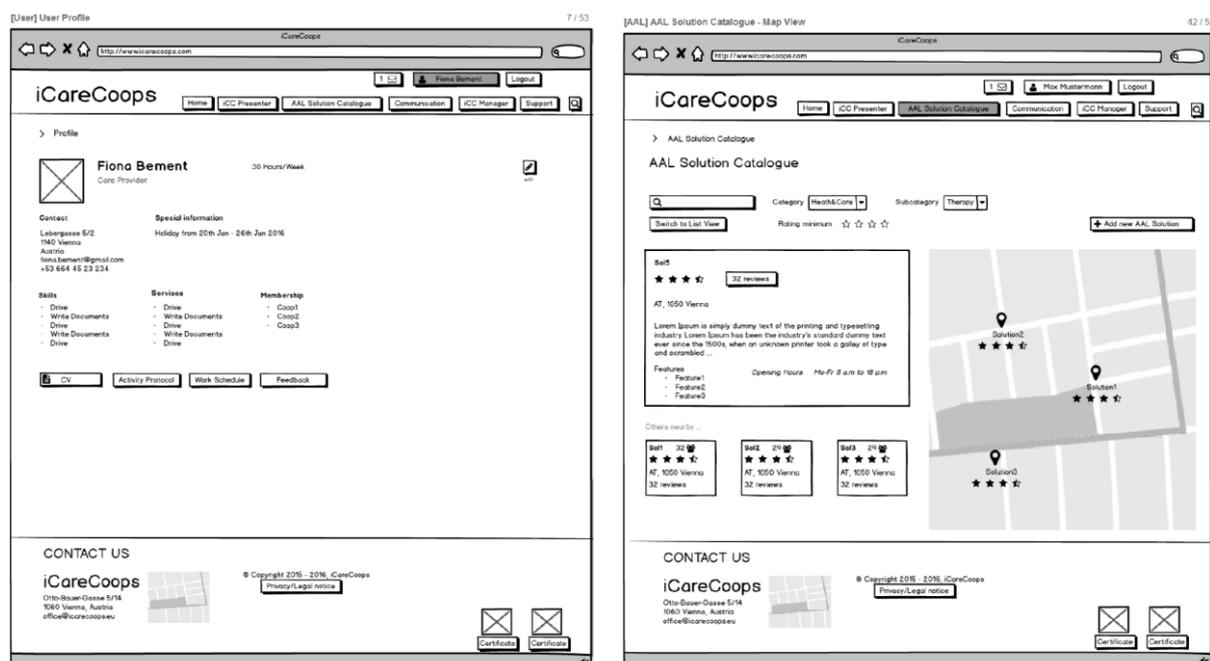
Figure 1: Wireframe Examples

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After the testing, qualitative data about the participant's preferences and issues is collected. The testing session can be outlined as follows:

Table 5: Session Outline.

Duration	40 minutes in total
Pre-test arrangements (10 min)	NDA Background questionnaire Introduction to testing procedure
Tasks (20 min)	Cooperative managers will receive tasks concerning management features. Staff members will receive tasks concerning service features. Care receivers will receive tasks concerning booking of services.
Post-test debrief (10 min)	Broad questions about the user's preferences and other qualitative data Follow-up on any particular issues during the task completion

The following tables give a summary of the paper prototype tests for each of the three user groups:

Table 6: Paper prototype test design for tests with cooperative staff members (cooperative managers).

Tasks	1. Register for iCareCoops 2. Setup cooperative on iCareCoops 3. Invite member to become manager 4. Invite member to become service provider 5. Invite member to become service receiver 6. React to a request 7. Poll members about a certain issue
Users	4-5 cooperative managers
Product	iCareCoops UI Paper Prototype
Environment	Work at Desktop Computer or on a Tablet in an Office, moderator sits next to user
Methods	• Thinking aloud • Questionnaire • Interview
Measures	• Error rate • subjective satisfaction • questionnaire replies

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Table 7: Paper prototype test design for tests with cooperative staff members (service providers).

Tasks	1. Register for iCareCoops 2. Request joining a cooperative 3. Create a new service 4. Schedule service assignments 5. Answer a poll 6. Place a request 7. Answer a member's question
Users	7-10 service providers
Product	iCareCoops UI Paper Prototype
Environment	Work at a Desktop Computer or on a Tablet in an Office, moderator sits next to user
Methods	• Thinking aloud • Questionnaire • Interview
Measures	• Error rate • subjective satisfaction • questionnaire replies

Table 8: Paper prototype test design for tests with older adults and service receivers.

Tasks	1. Please register for iCareCoops 2. You return to the platform at a later stage after you have already completed the registration. Please join a cooperative. 3. Please reply to the message you have received 4. Please look for the service "Massage" 5. Please start a poll with all coop members 6. Please schedule a new service assignment 7. Please download the manual "Text1"
Users	7-10 older adults in need of care services
Product	iCareCoops Information Solution UI Paper Prototype
Environment	Home setting with mobile device (phone or tablet), moderator sits next to user
Methods	• Thinking Aloud • Interview
Measures	• Error rate • subjective satisfaction

The session with the cooperative managers was reduced in participant count, as Riedlingen was not expected to have enough management staff for higher numbers. This should still be sufficient to find more than 70% of the problems related to the UI (Nielsen & Landauer, 1993).

3.5   Data to be Collected & Reporting

For all tests, a set of parameters derived from the measured usability criteria is captured during the session. For the data collected, pass-fail criteria are defined for the iCareCoops UI paper prototype. In order to get a better estimate of the severity, thresholds are defined with respect to the relative number of participants reaching them. When these thresholds are exceeded, a UI re-design will be considered, if no explicit flaw in the test design is identified to cause this exceeding. The following table shows the thresholds defined for iCareCoops paper prototype testing.

Table 9: Thresholds for consideration of a UI re-design for iCareCoops.

Criterion	10% of the participants …	50% of the participants …
Task completion	Fail ≥5 tasks	Fail ≥3 tasks
Requests for help	Request help ≥16 times	Request help ≥8 times
Misunderstandings	Misunderstand ≥5 items	Misunderstand ≥3 items
Inconsistencies	Experience ≥5 inconsistencies	Experience ≥3 inconsistencies
Negative Affect	React negative ≥3 times	React negative ≥1 time
Overall Impression	Rank impression "Bad"	Rank impression "Poor" or "Bad"
Reuse	-	Would not reuse the solution
Information Overload	Rank information provided and/or interactive elements "too high"	-
Information Missing	-	Rank information provided and/or interactive elements "too low"
Language	Had many problems	Had some problems
Missing Operations	Miss many essential interactions	Miss some essential interactions

Task completion is defined by reaching a so-called end-point within the paper prototype. An end-point is a predefined specific wireframe design from the first iteration of the Deliverables D3.2 and D3.3. The

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end-points for all tasks are described below. The visual design of those end-points can be found in the aforementioned Deliverables form the concept work package of iCareCoops (WP3).

Table 10: End-points for the tasks to be completed by participants in paper prototype testing.

TASK	END-POINT
Cooperative Manager Tests (SYNYO in Germany)	
1. Please register for iCareCoops	HOME Registration Success
2. You return to the platform at a later stage after you have already completed the registration. Please create your cooperative.	PRESENTER Coop Registration Notification
3. Please invite somebody to join the coop as a service provider.	MG Invitation Request Notification
4. Please reply to the message you have received	COMMUNICATION Message click „Reply"
5. Please start a poll with all coop members	COMMUNICATION New Poll click „Send"
6. Please download the manual "Text1"	SUPPORT iCareCoops Support click „Download"
7. Please show nearby AAL services.	AAL Solution Catalogue – Map View
Service Provider Tests (SYNYO in Germany)	
1. Please register for iCareCoops	HOME Registration Success
2. You return to the platform at a later stage after you have already completed the registration. Please join a cooperative.	PRESENTER Join Request click „Join"
3. Please add a service which you offer.	USER Profile (after edits)
4. Please schedule a new service assignment	MG New Appointment Notification
5. Please reply to the message you have received	COMMUNICATION Message click „Reply"
6. Please start a poll with all coop members	COMMUNICATION New Poll click „Send"
7. Please add a new product to AAL catalogue.	AAL Add new AAL Solution click „Send"
Care Receiver Tests (ZDUS in Slovenia)	
1. Please register for iCareCoops	HOME Registration Success

2. You return to the platform at a later stage after you have already completed the registration. Please join a cooperative.	PRESENTER Join Request click „Join"
3. Please reply to the message you have received	COMMUNICATION Message click „Reply"
4. Please look for the service "Massage"	AAL Solution Service
5. Please start a poll with all coop members	COMMUNICATION New Poll click „Send"
6. Please schedule a new service assignment	MG New Appointment Notification
7. Please download the manual "Text1"	SUPPORT iCareCoops Support click „Download"

The data collected was assembled into a brief report with a summary of the study, quantitative and qualitative results as well as a discussion of implications. We provided recommendations to improve the concept and suggest follow-on research for WP5.

3.6 Test Results

Paper Prototype Testing

Test results are quantitative and qualitative in nature. Their implications will be discussed so that recommendations for improving the solutions can be derived. All templates for data collection can be found in the Annexes of this document.

Participants: The paper prototype testing had 22 participants (8 coop managers, 6 service providers of a care coop, 8 care receivers). The first interesting finding was that care coop management and service providers consisted mostly of elderly people themselves with an average of 67 years among managers and 53 years among service providers compared to 74 years among care receivers.

Use of ICT: All managers always use the telephone for communication (100%), followed by email (96%). Moreover, WhatsApp and fax are used by them. Service providers prefer the phone (89%) and email (78%). WhatsApp (67%) and Facebook (56%) are more popular among this user group than SMS. Care receivers say they always use the phone to get in touch with others, followed by email (83%) and SMS (79%). The strong use of SMS is probably due to their avoidance of messengers such as WhatsApp. The distribution between private and work situations is mixed.

Office Tools: All user groups are well experienced with web browsers, which is essential for the success of iCareCoops. Word is another office tool used across all user groups, while Outlook as an email client is more common among managers. Excel, Calendars and databases are less common. Thus, related features should be kept very simple.

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Device Usage: Care receivers are twice as likely to use their phones rather than a computer. Laptops and phones are standard tools for managers and service providers. Tablets can be, as expected, neglected at the moment, due to lack of usage among the target groups.

Data Storage: Paper forms are still as much in use as digital documents among managers and service providers. Evan handwritten notes are common (85%). Thus, it is vital to provide print features and consider paper workflows for UX design.

Overall Usability: The overall usability being the main goal of the prototype testing was assessed with the previously outlined KPIs and thresholds. As the following table shows, results are generally positive and the paper prototypes passed most of the target values. Nonetheless, half of the participants showed some negative emotions towards the solution during the tests. These emotions were in most cases direct results of the other criterions where the prototype failed, namely misunderstandings, information overload, used language and missing operations.

Table 11: Results for consideration of a UI re-design for iCareCoops.

Criterion	10% of the participants …	Result	50% of the participants …	Result
Task completion	Fail ≥5 tasks	**4,5%**	Fail ≥3 tasks	**36,4%**
Requests for help	Request help ≥16 times	**0%**	Request help ≥8 times	**18%**
Misunderstandings	Misunderstand ≥5 items	**9,1%**	Misunderstand ≥3 items	**54,5%**
Inconsistencies	Experience ≥5 inconsistencies	**0%**	Experience ≥3 inconsistencies	**18,2%**
Negative Affect	React negative ≥3 times	**4,5%**	React negative ≥1 time	**50%**
Overall Impression	Rank impression "Bad"	**0%**	Rank impression "Poor" or "Bad"	**18,2%**
Reuse	-		Would not reuse the solution	**31,8%**
Information Overload	Rank information provided and/or interactive elements "too high"	**13,6%**	-	
Information Missing	-		Rank information provided and/or interactive elements "too low"	**22,7%**
Language	Had many problems	**18,2%**	Had some problems	**40,1%**
Missing Operations	Miss many essential interactions	**18,2%**	Miss some essential interactions	**45,5%**

Key insights of each criterion are described below.

Feedback from Participants: Managers and service providers were only moderately satisfied with the state of the prototype. Only about one third of them would use it again. In contrast, all care receivers would use the solution again and are 83% satisfied with it. This might be due to the fact that managers and providers are more experienced with technical solutions and therefore have higher expectations. On the other hand, care receivers might see the added value iCareCoops would have for them. Feedback concerning the presentation of the platform was mixed. The qualitative results support the quantitative in most cases. For instance, used language and information overload, especially for elderly users, were expressed during the testing sessions. Another criterion the prototype failed was interaction options. 30% of the managers, generally more experienced with technology than the user groups, thought that elements were missing. Service providers were not sure, if the solutions were helpful for the tasks. All participants were fully satisfied with the assistance of the researchers conducting the test sessions.

Test Tasks: Although a total of 12 questions were asked concerning task 3, none of the managers were able to invite a new service provider to join the solution. Only two could start a new poll and download the manual and three could show nearby AAL services. Only one of the service providers managed to add a new service they offered. Most of their questions concerned the platform in general, polls and the AAL catalogue. All care receivers were able to complete all tasks due to the strong assistance by the researchers. In contrast to the other user groups, they asked for assistance (60 times) and a lot of questions too.

Expression of Emotions: Emotional reactions were spread over all tasks. They range from anger about the complexity of the platform, to frustration about it ("I am too old for this."). A couple of participants were surprised about the completion of tasks (e.g. where the manual could be found). Especially care receivers had concerns that they might do something wrong and also about privacy on the platform. People not familiar with computers generally are afraid of using the wrong commands and breaking the computer or the software.

Misunderstandings and Inconsistencies: The 22 participants discovered 16 concrete inconsistencies in the current state of the prototype. There were 24 misunderstandings about certain elements, where the concept had to be tweaked to be easier to understand. The participants also contributed with 26 concrete suggestions on how to improve the solutions. While this is one of the criterions where the solution failed at this early testing stage, a lot of misunderstandings could be unravelled already and can easily be improved for the next development iteration. For example, the difference between a user and a coop was not understood by a majority. Moreover, participants were confused why to join a coop. Wording and technical terms, while easy to fix, caused a lot of confusion during the testing e.g. "support", "my services" and "appointments". The term "AAL" is completely unknown. Since

iCareCoops aims to raise awareness on AAL, it will be kept. Nonetheless, an explanation of the term and the benefits of the initiative must be added. Care receivers also had difficulties understanding the difference between registration and login and software workflows in general. Suggestions for improvement by the participants ranged from a wizard to description texts for all elements. Additionally, a reduced UI for care receivers was suggested. Coop managers will use member management most of the time, so seamless workflows are vital for iCareCoops' success. Some UI inconsistencies are missing poll/messaging options within the member list and a second-level-navigation. Elderly people especially demand clear steps back and forward within their tasks as they are not used to this kind of thinking. Older people are lost if there are too many options available for them at once, they would just use the functions they really need. Thus, reduced features and menus for them will be considered. Some of them have never used an online discussion board before. Therefore, this form of communication has to be re-evaluated or clearly explained.

All learnings from the prototype testing were turned into requirements. These were considered for the next iteration of the technical specification to come up with improved clarity, reduced information per page, and easier language. Because of the high number of misunderstandings and missing operations of the prototype, additional research about user experience for elderly users has been conducted (5.1). These new insights and UX implications will be developed into design mock-ups in the course of WP4.

Lessons Learned for the Test Design

During the tests, some minor test design flaws were identified, which were discussed to be avoided in subsequent test sessions. The mayor findings from evaluating the paper prototype test design can be summarized as followed:

- Language barriers and translation problems might lead to unforeseen confusion when answering questionnaires;
- Horizontal and/or vertical lines are suggested to support correct box ticking in case of more than four items and/or options;
- Reuse should be considered under certain conditions instead of just yes/no (i.e. "I would use this solution, if …");
- Assessment of the researcher teams' performance and the test quality might be reconsidered, though not excluded;
- Tasks should be related to the participant's regular tasks instead of generic actions (i.e. "schedule a car pool ride" instead of "schedule an assignment");
- Dropdown Menus for list filtering should not be set to a default value or shown as lists, as they are tempting to be clicked without any real gain.

Based on these findings, for the following sessions it is highly advised to shift wording conventions away from technical task descriptions to a more natural language. An example would be changing "Please register for iCareCoops." to "Please create a new account for the platform."

Not all lessons learned can be carried in a meaningful way to the tests with the digital iCareCoops prototype, but are rather useful for future paper prototype testing sessions. An example is the filtering option that changes listed items in a digital prototype while not having any visual effect on paper prototype tests.

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4 TESTING AND ITERATIVE PROTOTYPE OPTIMISATION

Testing is a crucial phase in every software engineering project. iCareCoops combines different test methods to iteratively optimise the technical prototype with close collaboration between testers and developers. Test procedures can be divided into three types – requirements analysis, user experience (UX) tests and functional tests. Over the period of three month (August to October 2016), a team of four software testers with advanced knowledge of the field thoroughly examined the iCareCoops web-platform. Among the testing methods employed by the team were risk-based and equivalence class tests. It was tried to insert unusual values where one would expect erroneous behaviour of a software application. Equivalence class testing was used, for example, for the three user-groups of care giver, care receiver or cooperative manager. Their efforts resulted in about 70 defects of medium to high severity. As usual in iterative software development projects the number of minor style deviations was much higher. Due to the high usability goals, iCareCoops wants to achieve even small UI glitches have to be fixed.

Requirement analysis (Sommerville, I.) is an important tool to evaluate whether the solution offers the functions which were defined at the project start. The MoSCoW-model is used for the prioritization of requirements. "Must haves" and the "Should haves" are features that will be implemented for the initial tests. Requirement analysis is much easier to conduct when the requirements are uniquely interpretable and consistent, like in iCareCoops. For example, one detected difference to the requirements was that the cooperative manager should also be able to add new service tasks via the task management although he/she himself/herself is not a service provider. Requirement analysis allowed for easy detection and implementation of this missing function.

Tests of the user experience (Myers, G) are essential to secure that requirements formulated in the style guide (D4.3) are fulfilled. This guide contains mostly non-functional requirements, which are defined to guarantee a consistent and easy-to-use design. As the iCareCoops web-platform will be used by older adults, too, it provides accessibility tools. The solutions will conform to WCAG-AA and offer features to help people with reduced abilities to set a higher contrast, for instance. The exact accessibility specification is also a part of the UX style guide.
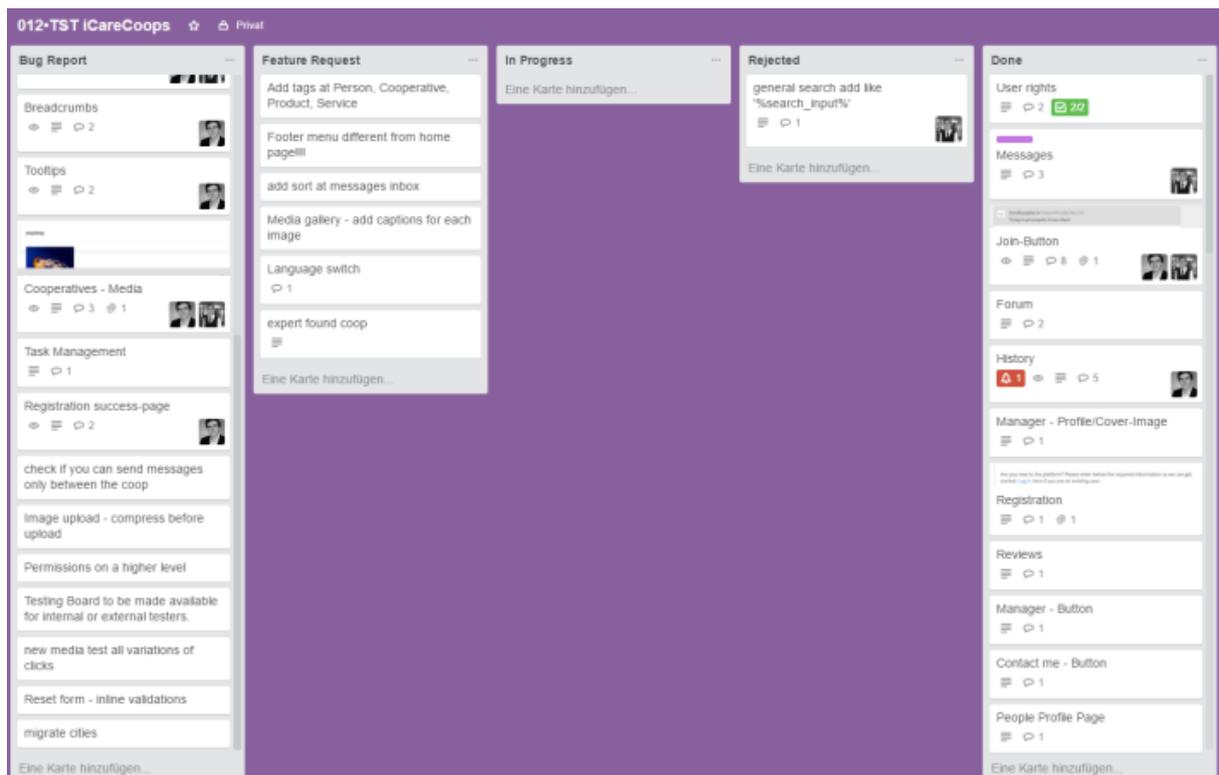
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Figure 2: Screenshot of the Trello test board

The third part of the tests concerns functionality (Rätzmann, M.). Functional tests check if the platform provides the functions in the initially defined form. For example, in its first version, the service search did not work as expected. While search bar and button were present, a search for a term did not show any search results. The issue management tool "Trello" is used to report the detected defects and streamline the bug-fixing process connecting testers and developers on a shared task board. Moreover, defects can easily be prioritized, described, and tracked in a structured way.
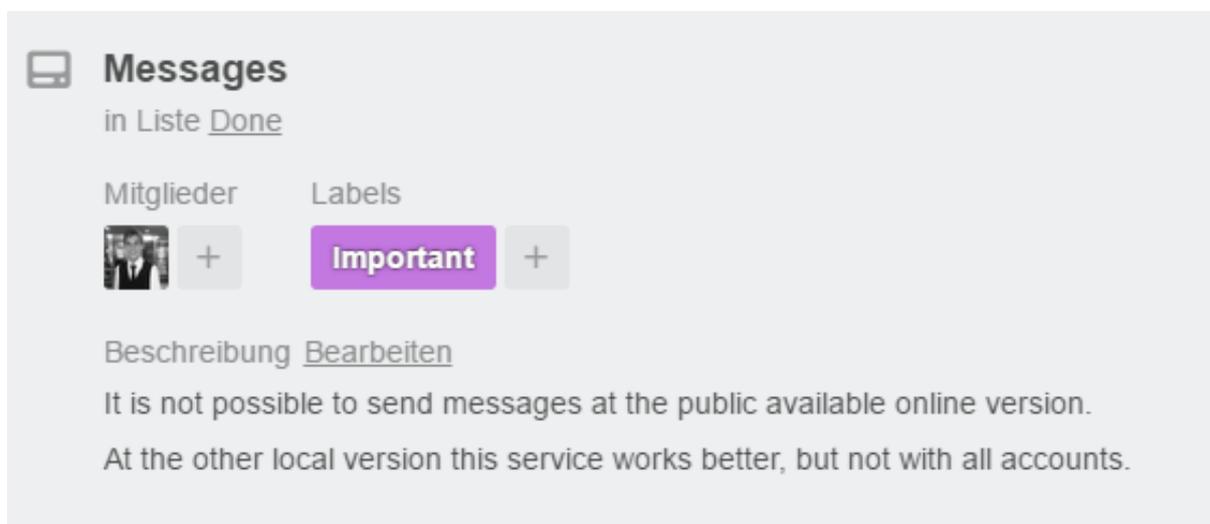

Figure 3: Screenshot of an exemplary issue on Trello

At a second stage of testing, other members outside of the development organisations will be invited to test the solution.

4.1 Expert walkthrough with heuristic evaluation

At the AAL Forum 2016, the team of iCareCoops had the opportunity to invite external experts to a hands-on workshop. 20 randomly selected participants who saw the paper prototype of the iCareCoops web-platform for the first time conducted an expert walkthrough with heuristic evaluation. The only prerequisite for participation was basic or advanced knowledge of UX.

Test design

The objective of the expert test was to identify usability problems of current prototype. Measures were number and severity of identified problems. The ten principles for user interaction by Nielsen/Molich were used as heuristics for classification of issues. Severity was ranked based on the scale from Barnum. The web-solution was made available in the form of colour paper prototype on A3. The 20 participants were divided into three groups led by an iCareCoops consortium member. Each test team was guided through up to five tasks to be fulfilled as coop managers, the main target group of the first prototype release. Target values for the prototype to pass the test were zero catastrophic issues, less than three major problems, less than 15 minor problems and less than 20 cosmetic problems.

TARGET

Catastrophe — 0 — show-stopper

major problem — <3 — significant potential impact on usability

minor problem — <15 — low priority, but should be noted

cosmetic problem — <20 — fix if there's time and it's easy

Figure 4: Barnum Scale

Before the walkthrough, the group leaders made sure that all participants understood the test design. Then, they read out loud the task description and showed the first screen. Participants were asked for their opinion on how they would complete the task. If they wanted to take a completely different path than the ideal one, they were told that this was impossible during this test because of the time constraints. Participants should point out any issue they see right away. The group leader wrote down each issue and the related screen on a moderation card and proceeded. Once a task was completed, the leader asked again what participants thought of the flow.

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Table 12: Tasks for the expert walkthrough

TASK 1	REGISTER COOP
Task description	**You are the manager of a new care cooperative. Please register your cooperative on the platform!**
Ideal click-flow	**1.1: [HOME] Startpage** Click "Register" OR Click "get started" 1.2: [HOME] Startpage 2 Click "Register a cooperative" 1.3: [Register] Register a cooperative 1 Fill in the form and click "Continue" 1.4: [Register] Register a cooperative 2 Fill in the second form and click "Continue" 1.5: [Register] Register a cooperative 3 Check the data and click "Submit" 1.6: [Register] Done

TASK 2	CHANGE THE PROFIL PICTURE
Task description	**You return to the platform at a later stage after you have already completed the registration. Please login and change the profile picture of your coop!**
Ideal click-flow	2.1 = **1.1: [HOME] Startpage** Click "Login" 2.2: [HOME] Login Enter email address and password and click "Login" 2.3: [HOME] Logged in Startpage *Shortcut to 2.5 - Click "Manager"* OR Click "My Cooperative" 2.4: [MG] My Coop *Shortcut to 2.6 – Click "Edit" on profile picture* OR Click "Manager" 2.5: [MG] Manager Click "Profile/Cover Image" 2.6: [MG] Cooperative – Edit/New Entry Click "Select image" next to "Profile picture"

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	2.7: [MG] Cooperative – Edit/New Entry
	Choose image and click "Open"
	2.8: [MG] Cooperative – Edit/New Entry
	Click "Submit"
	2.9: [MG] Cooperative Profile

TASK 3	INVITE A NEW SERVICE PROVIDER
Task description	**We have returned to the home page. You are already logged in and you want to invite the expert "Silvia Müller" to join your coop as a service provider.**
Ideal click-flow	3.1 = **2.3: [HOME] Logged in Startpage** **(A) Click "Expert Pool"** 3.1.2: [MG] Expert Pool Choose the right expert for your coop and click "Invite to join coop" **(B) Use global search for "Silvia Müller"** 3.2.2: [HOME] – 1 When there are more possible persons, choose the right one. 3.2.3: [MG] Search Click "invite to join coop" **(C)** *Shortcut to 3.3.3 - Click "Manager"* **OR Click "My Cooperative"** 3.3.2: [MG] My Coop Click "Manager" 3.3.3: [MG] Manager Click "Member Management" 3.3.4: [MG] Cooperative – Edit/New Entry Click "Invite Member" 3.4: [MG] New Message You can adapt the suggested text and click "submit" 3.5: [MG] New Message: "Invitation sent" screen

TASK 4	POLL
Task description	**We have returned to the home page. Please start a poll with all coop members.**
Ideal click-flow	4.1 = **2.3 [HOME] Logged in start page** Click "Polls" 4.2: [HOME] Poll overview Click "New Poll" 4.3: [MG] ALL Polls New Add a title and at least two answers and click "Submit" 4.4: [MG] All Polls

TASK 5	PRODUCT SEARCH
Task description	**We have returned to the home page. Please buy the cheapest GPS device!**
Ideal click-flow	5.1 = **2.3 [HOME] Logged in start page** **(A) Click "Products" to filter** 5.1.2: [HOME] Products Mark the Checkbox next to the category "GPS Devices" and then click "Search" 5.1.3: [MG] Products filtered **(B) Click "Products" to search** 5.3.2: [HOME] Products Search for "GPS" with the internal search function 5.3.3: [MG] Products search **(C) Use global search for "GPS"** 5.2.2: [HOME] Search results "Click" on device "LOK8U Freedom" 5.4 [MG] Product page Click "Collective Buy"

Once all five tasks have been completed or the test time was up, each group evaluated findings according to the ten heuristic principles and severity. Groups went through the collected cards and decided severity of the discovered issues. Participants were supposed to decide on their own while leaders tried not to influence decisions. Severity was marked with stickers on the card. Due to the limited workshop time, only the top-3 issues with highest severity were analysed for the affected heuristic principle. The principle numbers were also added to cards. After the group sessions, the top-3 findings were presented before all workshop participants.

In order to analyse the results, 10 usability heuristics for UI design by Nielsen & Molich (1990) were used for the classification of issues:

(1) **Visibility of system status:** The system should always keep users informed about what is going on, through appropriate feedback within reasonable time;

(2) **Match between system and the real world?** The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms; and should follow real-world conventions, making information appear in a natural and logical order;

(3) **User control and freedom:** Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue; the system should support undo and redo;

(4) **Consistency and standards:** Users should not have to wonder whether different words, situations, or actions mean the same thing – the system should follow platform conventions;

(5) **Error prevention:** Even better than good error messages is a careful design which prevents a problem from occurring in the first place – therefore, either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action;

(6) **Recognition rather than recall:** Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate;

(7) **Flexibility and efficiency of use***:* Accelerators – unseen by the novice user – may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users; the system should allow users to tailor frequent actions;

(8) **Aesthetic and minimalist design**: Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility;

(9) **Help users recognize, diagnose, and recover from errors:** Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution;

(10) **Help and documentation:** Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information

should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

4.2   Results

Surprisingly, test participants evaluated the prototyped more detailed than expected. Thus, none of the groups managed to complete more than three tasks because of the time constraints. Nonetheless, a total of 47 issues have been identified. The prototype failed the test because 10 of the issues were categorised as major and 23 as minor. It must be noted, however, that categorisation happened very quickly and probably had room for improvement. No catastrophic errors have been found. This means prototype at least passed the most important criteria. Affected heuristic principles were mixed. Thus, it was impossible to draw any additional conclusions.

Some examples of collected user requirements:

- Seamless member management and controlling;
- Online workflow similar to the real-life one;
- Extensive communication platform;
- UI that adapts to personal needs;
- Add and follow-up appointments via calendar.

4.3   Next steps

All issues have been added to Trello as bugs to be fixed. Because of the effectiveness of the expert walkthrough – 50 issues in 20 minutes – another iteration might be useful for another version of the prototype; however, due to time restriction and the extensive user tests, this was substituted by the expert tests.

Because of the high number of misunderstandings and missing operations of the prototype, additional research about user experience for elderly users has been conducted. These new insights and UX implications was developed into design mock-ups.

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5 TEST DESIGN FOR USABILITY, FUNCTIONALITY, AND PERFORMANCE PROBLEMS (PROTOTYPE II TEST)

Task 5.2 is the development of a verification test, where we design and perform usability tests on the iCareCoops solution. The leader of Task 5.2 is VIA, and the following organizations are contributing: ZHAW, COOPEU, ZDUS, RIED, IDEAL, SIVECO.

The test is performed in the language of the countries in question, except for the tests carried out by the technical experts, where the test is in English.

Usability is a quality associated with e.g. a website, and it concerns making the digital effects as useful as possible. It is crucial to the experience the user has when performing a task, and it is vital to the iCareCoops solution success (Gregersen and Wisler-Poulsen 2013).

The general usability test criteria are important; however, they will often be tested as a primary functionality (Gregersen 2013). It is the most effective and efficient way to uncover usability problems. The short description of our usability pilot test is as follows: We watch users trying to accomplish tasks on a website. In our case, the pilot testing consists of three iterations. Changes are made to the prototype so that findings are corrected. Each pilot test involves representative test individuals from the user cohorts, as suggested by Nielsen & Landauer (1993). We will use the findings from the usability test and feedback loops for further development of the prototype. We plan field tests with the primary future customers of iCareCoops, i.e. managers of cooperatives.

We are interested in covering the users' experience when they use the iCareCoops solution. We divided usability into three main categories as previously described by Gregersen and Wisler-Poulsen: Functionality, efficiency, and satisfaction.

To get a wider range of insights, we have decided to use thinking aloud, qualitative semi-structured interviews and quantitative test methods.

5.1 Overall purpose

The aim of usability testing is to investigate the interface design. The main aims are to identify and create a complete list of obstacles, problems for performing basic tasks and suggestions for improvements. Research questions:

1. How useful is the product in the users' organization? (meaning)
2. How easily do the users solve the tasks? (effectiveness)
3. What obstacles prevent users from completing the task?
4. Which interface elements are problematic/ helpful?

5. Which interface features or tasks cause emotional reactions and to what degree?
6. Which suggestions do users have to improve the product
7. Identify number of bugs, inconsistencies, navigational dead ends, and time spent performing tasks.

5.2 Participant characteristics

Experts: Prototype I (in an English version) was tested by a group of experts in Denmark. They produced a report containing suggestions for improvements. These improvements were considered for incorporation in the iCareCoops solution. The experts are ICT engineering students at VIA Business. We were looking for technical experts – alternatively, it could have been iCareCoops project members. The criterion is that they are trained in testing ICT solutions.

Cooperative Managers: In the first pilot test session, we used prototype II. It was carried out with five managers of ETRI – Development Cooperative, conducted by ZDUS staff members, and with seven members of the Seniorengenossenschaft Riedlingen, conducted by SYNYO, exploring the usability for cooperative providers and managers in the working environment. ETRI helps create different start-up cooperatives dealing in supply and services, and is therefore suitable also for pilot testing. They are very interested in the iCareCoops platform, and have agreed to participate.

It was expected that the interviews of managers contribute enough information on usability issues; this expectation was met by the tests.

We aimed to test with both tech-savvy as well as not so experienced managers. Building on a mathematical model for usability testing (Nielsen & Landauer, 1993), Rubin outlines 4-5 users will expose 80% of UI flaws (Rubin, 2008, P.72). We aimed to have up to between 5 and 10 participants from this specific user group and were able to include 12 users in total.

5.3 Usability test method

The following test design was selected as shown in Figure 5 and methods for usability tests as shown in Table 12. As can be seen in Figure 5, three phases of testing – additional to the paper prototype testing and the expert walkthrough – were conducted: Prototype I, Prototype II and Prototype III tests.

Prototype I Expert test	Test of interface design with experts November-December 2016
Prototype II Manager test I	Test of interface design with 5 managers at each location in January 2017, conducted by SYNYO & ZDUS. We test both the app, and the web solution.
Prototype III Expert test II	Test of interface design with experts April 2017.
Prototype III Manager test II	Test of interface design with 5 managers at each location in September/October 2017, conducted by SYNYO & ZDUS. We test the mobile app and web version, using thinking aloud, emotional wheel and qualitative interviews.
Prototype III Care givers	Test of interface design with 5 care givers at each location in September/October 2017, conducted by ZHAW & ZDUS. Only thinking aloud test is conducted in this group.
Prototype III Care receivers	Test of interface design with 5 older adults in need of care at each location in September/October 2017, conducted by ZHAW & ZDUS. Only thinking aloud test is conducted in this group.

Figure 5: Plan of iCareCoops test solution

For experts, the following test design was elaborated as shown in Table 13.

Table 13: Usability test design for tests with experts

Random Explorative study of the prototype I	We ask the experts to navigate the product and search for defects.
Users	Experts (ICT engineering students from VIA business or iCareCoops members)
Product	iCareCoops UI Prototype I (November 2016) and prototype III (April 2017)
Environment	Work at desktop computer or on a tablet.
Methods	• Make a report containing bugs and other usability issues.
Measures	• Identify possible obstacles • Identify bugs, inconsistencies, navigational dead ends, etc.

5.4   Preparation Before Test

Prior to testing prototype II, it was necessary that the web part of iCareCoops solution was established; and there a cooperative containing all features as described in *D4.3 Frontend Implementation Status Report* had to be created**.** In addition, to be ready to record the audio and the screen and for those who accept the conditions described in the Informed Consent document (see Appendix IV), it was also necessary to install a screen recorder such as Camtasia Studio. Prior to testing, two copies of the Informed Consent document also need to be translated, printed and signed, one for the participants and one for the project. In accordance to score the emotions the Emotional Wheel needs to be printed so that it can be used during the test (see Appendix I).

It can be useful to translate and print the interview guide so that it can be brought to the subsequent qualitative interview.

5.5   API Endpoints

The task completion is defined by reaching a so-called end-point within the website prototype. The end-point is predefined specific wireframe design. The end-points are described for all feedback loops and for both the iCareCoops web solution and the app solution for Android. The visual design of those end-points can be found in *D4.3 Frontend Implementation Status Report.*

Endpoints iCareCoops web solution

- Registration
- Authentication
- Password recovery
- Tasks and tasks actions including open tasks and schedules
- Cooperatives and cooperative level actions (accepting members, joining a cooperative for both care givers and receivers)
- Private messaging system
- Map (cooperative listing by GPS coordinates)

Endpoints iCareCoops mobile app solution

User

- Login
- Reset/Resend password
- Register which tasks you are interested in

Task

- Get list of predefined tasks for a coop

- Create task
- Edit task
- Delete task

Schedule

- Get user schedule. Possible to get a schedule for a user. It should be possible to post for how many days into the future the
- Get coop schedule. Possible to get a schedule for the coop.

Chat

- Create a new chat. A chat can be between two or more users
- Post a message to a chat
- Get list of chats for specific user

The explorative tasks in the tables below are based on the respective endpoints.

Table 14: Usability test design for tests with cooperative managers

Explorative tasks	We ask for completion of the test setup to avoid bias and get the feedback needed. • Login and registration • Invite and remove members • Set service provider role (rights) to an edit level (if it exists) • Show member details • Edit content in a cooperative profile • Add a cooperative service • Remove a cooperative service • Create a poll for members
Users	10 cooperative managers in the test of prototype II. 5 cooperative managers in each of the two prototype III tests of the iCareCoops web solution (ZDUS and SYNYO) and 5 cooperative managers in each of the two prototype III tests of the App solution (ZDUS and SYNYO).
Product	iCareCoops UI Prototype II and Prototype III
Environment	Work at desktop computer or on a tablet in an office, moderator sits next to user Camtasia studio recording (video recording of screen and voice)

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Methods	Thinking aloud test including video recording of screen and audio recording of voice of the manager and observation of the manager. Semi structured motivational qualitative interview with a predefined interview guide.
Measures	- What percentage of tasks is completed? - Qualitative description of functionality, efficiency and satisfaction - Identify type and number of bugs, inconsistencies and navigational dead ends and identify number of clicks before target is reached. How often do they recover if they encounter problems? How many times do they need help? How many completed the test and how many gave up? How long time does it take them to solve the test? - Subjective satisfaction - Number and degree of emotions during thinking aloud test

Table 15: Usability test design for tests with cooperative care professionals.

Tasks	8. Register for iCareCoops 9. Request joining a cooperative (There has to be a cooperative to join) 10. Create a new service 11. Schedule service assignments 12. Answer a poll (a poll must be created in which the members can participate) 13. Place a request 14. Answer a member's question (There has to be a question from a member to answer)
Users	5 care professionals consisting of a group of coordinators inside ZDUS project Elderly for Elderly http://www.zdus-zveza.si/project-elderly-for-elderly And 5 care professionals recruited by ZHAW
Product	iCareCoops UI Prototype III
Environment	Work on a desktop computer or on a tablet in an office, moderator sits next to user
Methods	Thinking aloud
Measures	- Interface features that causes emotional reactions, and to what degree. - Time consumption solving task - Number of obstacles preventing users from completing tasks

Table 16: Usability test design for tests with older adults and service receivers.

Tasks	8. Register for iCareCoops 9. Join a Cooperative. 10. Reply to a message. (There has to be created a message that the test person can answer.) 11. Order the service "Physiotherapy" and schedule it 12. Answer a poll (There has to be created a poll to answer.)
Users	5 older adults in need of care services from each location (ZDUS and ZHAW).
Product	iCareCoops Information Solution UI Prototype III
Environment	Home setting with mobile device (phone or tablet), moderator sits next to user
Methods	• Thinking Aloud
Measures	• Interface features that causes emotional reactions, and to what degree. • Time consumption solving task • Number of obstacles preventing users from completing tasks

5.6 Experts Reporting

Technical experts tested the product. The aim was to identify bugs and other usability problems for performing basic tasks and give suggestions for improvements. These experts were ICT engineering students; they are familiar with website-/product testing. After the test, the experts made a Q/A-report on the product's usability. Findings and suggestions were noted in a summary, so results could be incorporated in prototype II.

5.7 Thinking Aloud Test

The arguments for choosing the thinking aloud test is that it gives us a list of identified usability problems for performing basic tasks as described by Gregorsen (2013). It is thus an ideal method to contribute to answering our research questions. In addition, the thinking aloud test gives the moderator the opportunity to ask for suggestions for improvements of the product and business-related questions.

In a digital environment, thinking aloud is a frequently used method in usability tests. In most of the research on websites usability tests are set up in which a user is given a set of realistic tasks, in our case for example a manager offering care. We request that the test persons perform the tasks thinking aloud while testing the prototype version reached at this stage. The thinking aloud test begins with a

brief introduction containing information on the purpose of the test, interviews, and testing procedure.

During prototype II test, all test persons were first testing the iCareCoops web solution because they have to be redistricted before they can test the app solution. The same procedure was conducted in prototype III testing.

A moderator and an observer were present during the thinking aloud tests. The participants filled in an informed consent document[3] prior to the test. This declaration was prepared by the individual partners. An English version is included in this document (see Appendix IV – Informed Consent). A short overview on the test assignment was offered to let participants become familiar with the "thinking aloud" technique; and the way to collect emotional data was introduced.

Thinking aloud requires the users to verbalize all thoughts while working with the system in order to give a better understanding of their interpretations or potential misconceptions of the interface provided (Nielsen, 1994). In this part, a moderator is present and is supposed to help the test person think aloud. Sitting next to the participant, the moderator's task is to gather the participant's expressions of emotions and combine them with the situation in which they occurred. Each group received realistic tasks (see Table 13 to 15). While performing tasks, the screen audio was recorded. The video recording includes screen capture, and capture of the participant's face. The latter involves only those who have accepted video recording of their faces. VIA suggested that the programme for video recording used should be Camtasia by Techsmith[4].

The benefits of recording audio and video of what happens on the screen and record the face of the test person is that it gives the opportunity to analyse emotions in connection to tasks. All three methods were synchronized. Furthermore, the recordings give the opportunity to replay if needed while analysing.

The test design of the app was similar to the test design of the iCareCoops solution (web part). A screen recorder for android can be found in Google Play. For further information follow the link below: http://www.androidauthority.com/best-screen-recording-apps-600838/

In terms of requirements during the test, the moderator should be polite and neutral when asking questions and giving comments. The moderator had two tasks during the scenario with the test person. First, to ask questions if the test person stops thinking aloud. If the test person stops talking for 3-4 seconds, then the moderator should make a comment or ask a question – for example "what are you thinking?". The second task was to observe emotional expressions during the test.

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[3] An informed consent document is prepared by individual iCareCoops partners.
[4] https://www.techsmith.com/camtasia.html

The observer has one task during the scenario: It is to observe what the test person is doing on the screen and document this so that the six research questions can be answered. For the analysis it is possible to use the recordings from the thinking aloud test if necessary.

If any test persons couldn´t solve the tasks or if they were unable to continue, then the moderator guided him or her through the problems so the test could be conducted.

5.8 Emotional wheel

The second task of the moderator, as mentioned above, was to observe emotional expressions during the test. Before testing, the moderator printed and included the emotional wheel. This can be found in Appendix I – Emotional Wheel Analysis.

When observing, the moderator asked what emotion were evoked. Participants could choose between following emotions: anger, frustration, sadness, happiness, joy, and pride. The participants scored these emotions on a numerical scale from 0-5, where 0 is the lowest degree, and 5 is the highest degree of emotions. The choice of emotions and the way to score are inspired by the Emotional Wheel (Fontaine, 2013). The reason for analysing emotions by using the emotional wheel is that it gives the opportunity to investigate usability issues.

5.9 Motivational qualitative interview

Motivational interview

In order to evaluate the usability of the iCareCoops web and App solutions, we also used motivational qualitative interviews. After the thinking aloud test, the moderator made individual interviews with the participants. In addition, we recorded the audio of the interview because it makes it possible to listen to it again during analysing. Moreover, an issue is to ask questions based on the thinking aloud test. The interviews were based on an interview guide (see Table 17). The questions this guide seek to uncover usability criteria such as functionality, efficiency, satisfaction, self-description ability, conformity with expectations, helpfulness, and affect. The interview guide is a repeatable interview, and the plan was to use the same interview guide in all tests. The role of the observer was to take notes in OneNote during the interview so that these function as bookmarks in the recorded audio. Before conducting the interview, the observer made OneNote ready for the interview and inserted the six research questions (see Appendix III – Use of OneNote), and, lastly, turn on microphone so that the audio was recorded in OneNote. When notes are taken during the interview, these functioned as codes.

Motivational qualitative interview guide

The following questions were used for the motivational qualitative interviews (see Table 17).

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Table 17: Interview guide for qualitative interview

Research questions	Interview questions	Questions to help answering
Effectiveness	Describe how the interface supports your task in terms of achieving the goal. Explain how you solved the tasks?	What obstacles prevent users from completing task?
Satisfaction	How satisfied are you with the product and the interface?	What causes frustration or satisfaction? Describe the feature. What questions do you have regarding help?
Conformity with regard to expectations	Explain how the solution might be of value for you? How does it correlate with your expectations? Which suggestions could you contribute to improve the design?	
Functionality	What do you think of the functionality of the web site? How do the menu work for you? How did you experience the navigation on the homepage? How satisfied are you with the design: colours, size, contrast, symbols etc. How do you think the information you got on the homepage was usable?	How do you understand the text on the site? Are the functions of the site easy or difficult to use? Did you need to request help? At which points do you actively request help? Describe interface elements you find problematic or helpful? Are some interface elements problematic? Can you describe some good elements?

		Did you miss some functions?
	Describe missing features regarding functionality?	
Affect	Describe how you felt, while you tested the solution?	
Marketing analyses questions

Se Appendix II for further questions about marketing analyses. | What will it take to make you purchase this product?

Which changes should be made to the product to make you interested in buying it?

Do you have suggestions to other target groups in terms of what functions and services this product could provide? | |

5.10 Test results to be collected, analysed, and reported

Aim of prototype II test was to answer the following questions:

1. How useful is the iCareCoops solution in the user's organization?
2. How easily do the users solve the tasks?
3. What obstacles prevent users from completing the tasks?
4. Which interface elements are problematic/ helpful?
5. Which interface features or tasks cause emotional reactions, and to what degree?
6. Which suggestions do users have to improve the product?

Furthermore, an analysis of the video data from the think aloud test was carried out.

5.11 Experts test I reporting and summary

The test by VIA ICT students were performed November 2016 and bug reports were created December 2016. There were 14 ICT students prepared 67 bug reports all together. Several were concerning different browser issues. For example, the iCareCoops web solution did not work in Chrome. Other reports described problems changing website colours. For further details on the findings, check Appendix VII – Bug Report Expert test I prototype II, where all bug reports associated with prototype II are included.

SYNYO, IDEAL and SIVECO analysed the bug reports until end of December 2016. Based on the findings prototype II will be developed January 2017.

5.12 Thinking Aloud Test and Emotional Wheel Analysis (qualitative)

The video and audio of the thinking aloud test was analysed in ways inspired by the method described by Malterud (2011). For a brief English summery of the method, see Chapter 5.14. The findings from prototype II testing were incorporated into prototype III. The same procedure is repeated in prototype III test, which was conducted with cooperative managers, service providers and older adults in need of care.

The emotions gleaned during the thinking aloud test were analysed by associating them with the task where they occurred. This provides an overview of the emotions associated with each task.

For all tests, a set of qualitative data was derived from the measured usability criteria during the session. For the data collected in each iteration SYNYO, SIVECO and IDEAL got the result for further processing on the iCareCoops solution.

In these analyses, it was not relevant to make quantifications of errors, as this did not make sense in terms of this small population of test individuals (Kvale & Brinkman, 2015). If an informant discovers a problem, this issue was relevant to be added to the results, as this individual can also be representative of a larger population of users.

A report on what the test groups in total have stated was made. The qualitative data collected was assembled in a report with a summary of the study, as well as a discussion of implications. This provided recommendations to improve the solution.

5.13 Emotional wheel analysis (quantitative)

The emotional test score is quantified in each of the five categories: anger, frustration, sadness, happiness and joy and the degree of emotion evoked (0-5). If the average level of the emotions anger, frustration or sadness during a given task reaches 3 or more, it is relevant to reconsider and re-design the aspect of the iCareCoops solution in question.

The emotions happiness and joy give an impression of aspects of the product that have a high usability. This will contribute to a methodological triangulation which supports findings in the qualitative analyses. The emotional wheel is ready for printout so that it can be used during the Thinking Aloud Test.

5.14 Analysis of the semi-structured interview using systematic text condensation

The audio containing the qualitative interview was analysed in ways inspired by the method described by Malterud (2011).

Transcription

The recorded interview was structured into a written form in order to prepare it for further analysis. In this phase, the interview was changed from an oral to a written form, the so-called transcription. The procedure involves going ahead and writing down the interview word by word. It is time consuming to transcribe the entire interview. Therefore, it is suggested that only important pieces of the interview are transcribed (for our case this meant: those sections where the six research questions were answered), in order to prepare each code category for further cross analyses. It is suggested that notes are taken in a program, e.g. OneNote, that can bookmark the text, while the interviews are conducted and if necessary also afterwards when listening to the recorded interview.

Coding

The first step is to code each of the test group recordings of interviews in categories corresponding to the six research questions described in Chapter 5.1. Coding was made during interview as described previously. If two codes describe the same phenomenon, they were condensed into one.

From coding to meaningful categories

The second step was to condense the content of each category in each interview, thereby presenting the most important findings. The meaning appears in a condensate. This means gathering sections of text that belong to each code.

Interpreting

The third step is to conduct analyses between interviews so that each of the categories can be cross analysed. Thereby, the text sections are sorted according to patterns, and represented in a condensate of meaningful text, according to the categories. Then descriptive statements were made according to each category and the condensate contains the most important themes from all interviews. It was stated that it can be useful to do this in co-operation with another researcher in order to identify more aspects. It is important to avoid drawing conclusions that do not correspond to the data at this stage.

The conclusions from the analysis of the interview were incorporated into the next prototype along with the findings from the thinking aloud test and the emotional wheel analysis.

5.15 Results Prototype II Manager Test

Prototype tests with prototype II were conducted in Germany and Slovenia. Seven managers of the care cooperative Riedlingen and five managers from ETRI tested the manager-specific features of the iCareCoops solution. End-user feedback was collected throughout the prototype test by a second researcher who observed the tests. In addition, the tests' audio and video were recorded. Both sources were analysed as described in D5.1, in an approach inspired by the method of Malterud (2011). Key passages from the user feedback have been transcribed and coded into the six pre-defined categories in order to answer the six research questions. As the tests have been conducted in Slovene and German, the coded and condensed data also had to be translated to English. The translated data was grouped in one spreadsheet for interpretation. Key takeaways were derived from the data which was integrated into the next iteration of the web and mobile prototypes.

Conformity

The first research question was, "How useful is the iCareCoops solution in the user's organization?" User feedback was overall positive. One manager said "*The question is how would the care receivers be able to use it without additional help*". Several managers expressed concerns about how the solution could be integrated with other ICT-solutions. The most positive managers said that they were ready to use the solution and saw themselves as future users of the solution. Some of them tool precautions and said that the solution could be useful.

Users stated that the app prototypes were practical: "*Because people can manage tasks on the go*". They also suggested certain optimisations so that the solution would match their expectations e.g. a billing functionality.

Functionality

The second category focused on the functions of the platform and how easy it was for users to solve the tasks. Six findings had to be taken into account for the next iteration of the web solution. The difference between login and registration was unclear for some users. The "MANAGER" button was misplaced at the top-right of the UI and should have a better title and icon. Service Management was hidden too deep in sub-menus. Moreover, service removal via the small "x" was difficult for most participants. They also expected a dialogue warning that elements would be removed before the changes were committed to the profile page. Task management should be renamed at least in German to "Dienstleistungen verwalten". All participants made use of the search function. But some expected search to cover all areas and words. Currently, it only searches the most relevant ones. The app should include a hint that the start page is scrollable. Some users were less experienced in mobile apps and were not aware of the possibility to scroll through swiping. Thus, the "Add task" button should be moved to the top to make sure it is noticed. We also learned that we cannot expect older adults to be

aware of current GUI elements, e.g. a bottom tab navigation. The app has to be more intuitive with more explanatory text and images.

One manager commented about the APP: "*Do not expect older adults to learn current GUI elements (e.g. bottom tab navigation). Has to be more intuitive with more explanatory text and images*". Some users find it difficult to get used to the interface they find it to complicated. It is not explained in what way.

Effectiveness

The third category investigated whether certain obstacles prevented users from completing the tasks. While the users agreed that all the important features were there some of them still had to be fine-tuned to be effective. One of the key takeaways was that the menu items at the top right, such as profile, logout, and manager, were not noticed at all. Therefore, the menu has to be included in the in main navigation on the left. Some participants were used to a "BACK" button to return to the previous page as well as to use the keyboard for specific actions, e.g. the "DEL" button to delete services from the list. The service page as a whole has to be optimized and it must be clear what services are shown. It was unclear if they were services offered by their coop or by any coop. It was also unclear why the member management has a button "Send invitation" as members should already be on the platform. The service list on the coop profile page should be linked to the corresponding providers' page. Besides two minor bugs on the web solution users were confused by the app main navigation at the bottom. An alternative would be big buttons or tiles instead of small bottom tab navigation bar. Furthermore, the wording "chat" was unknown to some participants.

In general, managers were confused about the location and meaning of buttons, which was also associated with a lot of klicks in order to reach the required page.

User interface effectiveness

The fourth question investigated during the tests was "Which interface elements are problematic/ helpful?" This category resulted in highest number of user remarks. Some users even suggested that training courses and a handbook would be valuable to use the interface effectively. Therefore, the solution has to be optimized on that matter. Since some features were hidden in sub-menus, user defined shortcuts to favourites might be useful. When adding a new task, they expected a manager to be able to define care provider and receiver too. The font size should either be increased or the maximum magnification level of the zoom function has to be increased at least. Minor inconsistencies of button colours were detected. The size of icons of the mobile app also has to be increased. Users asked for a task detail page where they could read about the task and decide to take over a task instead of only having a button underneath each item of the task list. We learned that care receivers will never type anything on the small smartphone virtual keyboard. They should either be able to select items

from a list or have the option to call a care provider directly. Moreover, it was pointed out multiple times that the interface for older adults should be drastically simplified.

Satisfaction

"Which interface features or tasks cause emotional reactions, and to what degree?" End-users' satisfaction with the state of the solution was okay. However, small glitches in the flow could result in a lot of frustration for them and would make them quit using the solution. Therefore, streamlining of already implemented functions will be the main focus for the optimization of the prototype.

Conformity

When asked if users have any other suggestion to improve the product, we were able to collect 45 ideas to do so. Most of them are quick fixes that illustrate what features caused the biggest frustration for them. Some suggestions deviate too far from the value proposition of the solution. The full list can be found in the test result spreadsheet.

5.16 Conclusion

Key takeaways from prototype II test was that certain features need to be improved e.g. by simplifying placement, additional icons and use of terms. Dialogue warnings should be added, and certain terms should be changed in an improved translation of the solution. Furthermore, the search function should be improved so it covers more areas and words instead of only the most relevant ones. Additionally, menus should be improved (especially the menu on the top right containing profile and logout).

We learned that we cannot expect older adults to be aware of current GUI elements, e.g. a bottom tab navigation. The app has to be more intuitive with more explanatory text and images, and hence also be drastically simplified and optimised to be more intuitive especially for senior users. For managers, who are more experienced users, additional features were wished. However, it is not in the scope of the iCareCoops project to add a billing functionality to the solution.

Collected feedback and inputs were transferred into technical requirements and changes were incorporated, resulting in prototype III.

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6 TEST DESIGN FOR USABILITY, FUNCTIONALITY, AND PERFORMANCE PROBLEMS (PROTOTYPE III)

The following design is partly similar to the design of prototype II as described in Chapter 5. There were changes in design and, therefore, in order to be able to understand and read this part without prior knowledge about prototype II design, we make a full description of the test design again. Task 5.2 is the development of a verification test, where we design and perform usability tests on the iCareCoops solution. The leader of Task 5.2 is VIA and the following organizations are contributing: ZHAW, ZDUS, RIED, IDEAL, SIVECO.

The tests were performed in the language of the countries in question, except for the tests carried out by the technical experts, which were conducted in English.

Usability is a quality associated with e.g. a website, and it concerns making the digital effects as useful as possible. It is crucial to the experience the user has when performing a task, and it is vital to the iCareCoops solution success (Gregersen and Wisler-Poulsen 2013).

The general usability test criteria are important; however, they will often be tested as a primary functionality (Gregersen 2013). It is the most effective and efficient way to uncover usability problems. The short description of our usability pilot test (for prototype I, II and III testing) is as follows: We watch users trying to accomplish tasks on a website. In our case, the pilot testing consisted of three iterations. Changes are made to the prototype so that findings are corrected. Each pilot test involves representative test individuals from the user cohorts, as suggested by Nielsen & Landauer (1993). We used the findings from the conducted usability test and feedback loops for further development of the prototype. We planned field tests with the primary future customers of iCareCoops, i.e. managers of cooperatives, care givers and care service providers and older adults in need of care, which is described in this chapter as prototype III test.

We were interested in covering the users' experience when they use the iCareCoops solution. We divided usability into three main categories as previously described by Gregersen and Wisler-Poulsen: Functionality, efficiency, and satisfaction.

To get a wider range of insights, we have decided to use thinking aloud, qualitative semi-structured interviews and quantitative test methods.

6.1 Overall purpose

The aim of usability testing is to investigate the interface design. The main aims within our scope were to identify and create a complete list of obstacles, problems for performing basic tasks and suggestions for improvements. Our research questions were:

1. How useful is the product for the users or in the users' organization? (meaning)
2. How easily do the users solve the tasks? (effectiveness)
3. What obstacles prevent users from completing the task?
4. Which interface elements are problematic/ helpful?
5. Which interface features or tasks cause emotional reactions and to what degree?
6. Which suggestions do users have to improve the product?

Furthermore, we aimed to identify the number of bugs, inconsistencies, navigational dead-ends, and time spent performing the various tasks.

6.2   Participant characteristics of prototype III test

Experts: The prototype III (in an English version) was again tested by a group of experts in Denmark. Tests were conducted by ICT engineering students at VIA Business. They are trained in testing ICT solutions**.**

Managers: Prototype III was tested with managers of ETRI - Development Cooperative (conducted by ZDUS staff members), and with members of the Seniorengenossenschaft Riedlingen (conducted by SYNYO), exploring the usability for cooperative providers and managers in the working environment. ETRI helps create different start-up cooperatives dealing in supply and services, and is therefore suitable also for pilot testing. They are very interested in the iCareCoops platform, and have agreed to participate.

Service providers: A group of relevant service providers were included in the test of prototype III. There were no exclusion criteria for these participants; the service providers could be either professional or non-professional/informal care/service providers, as long as they were able to use the website or app. However, the profession was noted during the test. Tests were conducted by ZHAW and ZDUS with 5 service providers each.

Older adults in need of care: A group of older adults in need of care services were also included in the test of prototype III. Inclusion criteria were that they must be more than 65 years old and users of some kind of health care or service. They must be able to provide for them self. We aimed for an equal gender split. Tests were conducted by ZHAW and ZDUS with 5 older adults each.

Prototype II and III include all features exploring the usability for managers in their working environment. This group of managers is selected because of the close cooperation in previous parts of iCareCoops. Tasks and interview guide for managers concerning usability in prototype III test is the same as in prototype II test. However, for prototype III test, further marketing questions like Collective Buying, Shared Logistics etc. were added. The groups of service providers and older adults in need of care were only conducting the Thinking Aloud test. We have chosen to conduct interviews only with

cooperative managers. Therefore, no interviews will be conducted with service providers and older adults in need of care.

We aimed to include both tech-savvy as well as not so experienced managers. Building on a mathematical model for usability testing (Nielsen & Landauer, 1993), Rubin outlines 4-5 users will expose 80% of UI flaws (Rubin, 2008, P.72). We aimed to have up to between 5 and 10 participants from the user group; a goal which we were able to reach.

6.3   Usability test method

VIA suggested the following design as shown in figure 1 and methods for usability tests as shown in table 1-4:

Prototype I Expert test	Test of interface design with experts November-December 2016
Prototype II Manager test I	Test of interface design with 5 managers at each location in January 2017, conducted by SYNYO & ZDUS. We test both the app, and the web solution.
Prototype III Expert test II	Test of interface design with experts April 2017.
Prototype III Manager test II	Test of interface design with 5 managers at each location in September/October 2017, conducted by SYNYO & ZDUS. We test the mobile app and web version, using thinking aloud, emotional wheel and qualitative interviews.
Prototype III Care givers	Test of interface design with 5 care givers at each location in September/October 2017, conducted by ZHAW & ZDUS. Only thinking aloud test is conducted in this group.
Prototype III Care receivers	Test of interface design with 5 older adults in need of care at each location in September/October 2017, conducted by ZHAW & ZDUS. Only thinking aloud test is conducted in this group.

Figure 6: Plan of iCareCoops test solution

Table 18 shows the usability test design for user tests with experts as conducted for prototype III testing.

Table 18: Usability test design for tests with experts

Random Explorative study of the prototype III	We ask the experts to navigate the product and search for defects.

Users	Experts (ICT engineering students from VIA business or iCareCoops members)
Product	iCareCoops UI Prototype I (November 2016) and prototype III (April 2017)
Environment	Work at desktop computer or on a tablet.
Methods	• Make a report containing bugs and other usability issues (see Chapter 5.6)
Measures	• Identify possible obstacles • Identify bugs, inconsistencies, navigational dead ends, etc.

6.4   Preparation before test

Prior to testing prototype III, it was necessary that the web part of iCareCoops solution was improved based on the feedback of prototype II testing. In addition to be ready to record the audio and the screen and, for those who accept the conditions described in the Informed Consent document (see Appendix IV – Informed Consent), it was also necessary to install a screen recorder such as Camtasia Studio prior testing the web, or prepare video camera setting when testing the app. The Informed Consent document, as well as the Emotional Wheel, already had to be translated for prototype II tests and could thus be re-used for prototype III testing. Each participant had to sign to copies of the Informed Consent document, one for the project and one for themselves. In accordance to score the emotions, the Emotional Wheel needs to be printed so that it can be used during the test (see Appendix I – Emotional Wheel Analysis).

Furthermore, it can be useful to translate and print the interview guide so that it can be brought to the test.

6.5   Test Endpoints

The task completion is defined by reaching a so-called end-point within the website prototype. The end-point is a predefined specific wireframe design or screen. The end-points are described for all feedback loops and for both the iCareCoops web solution and the app solution for Android. A detailed description was created for prototype III testing, as can be seen in Appendix V – Walkthrough Prototype III Test.

Endpoints iCareCoops web solution

- Registration
- Authentication
- Password recovery
- Tasks and tasks actions including open tasks and schedules

- Cooperatives and cooperative level actions (accepting members, joining a cooperative for both care givers and receivers)
- Private messaging system
- Map (cooperative listing by GPS coordinates)

The explorative tasks in the tables below are based on the respective endpoints.

Table 19: Usability test design for tests with cooperative managers

Explorative tasks	We ask for completion of the test setup to avoid bias and get the feedback needed. • Login and registration • Invite member • Change rights for an existing group of product providers • Show member details • Edit content in a cooperative profile • Add a cooperative service • Remove a cooperative service • Create a poll for members • Answer question from a member
Users	Prototype II test: 10 cooperative managers. Prototype III test: 5 cooperative managers testing the web solution in Riedlingen and 5 cooperative managers in ETRI. The test is conducted by ZDUS and SYNYO.
Product	iCareCoops UI Prototype II and Prototype III
Environment	Work at desktop computer or tablet with Wi-Fi. The moderator sits next to the manager. Camtasia studio recording (video recording of screen and voice)
Methods	• Thinking aloud test including video recording of screen and audio recording of voice of the manager and observation of the manager. Semi structured motivational qualitative interview with a predefined interview guide.
Measures	• What percentage of tasks is completed? • Qualitative description of functionality, efficiency and satisfaction • Identify type and number of bugs, inconsistencies and navigational dead ends and identify number of clicks before target is reached. How often do they recover if they encounter problems? How many times do they need help? How many completed the test and how many gave up? How long time does it take them to solve the test?

	• Subjective satisfaction
	• Number and degree of emotions during thinking aloud test

Table 20: Usability test design for tests with cooperative care professionals.

Tasks	• Register for iCareCoops (only on computer)
	• Request joining a cooperative (There has to be a cooperative to join)
	• Accept a new task
	• Schedule a new task
	• Answer a poll (a poll must be created in which the members can participate)
	• Answer a service receiver's question (There has to be a question from a service receiver to answer)
Users	5 care professionals consisting of a group of coordinators inside ZDUS project Elderly for Elderly http://www.zdus-zveza.si/project-elderly-for-elderly 5 care professionals recruited by ZHAW
Product	iCareCoops UI Prototype III
Environment	Work on a desktop computer with Wi-Fi, moderator sits next to user
Methods	• Thinking Aloud with or without video recordings. If it is decided not to make video recording during thinking aloud test, then an observation study with note taking during test needs to be performed. Prior testing information about the care professional's profession are to be collected.
	• Notes are to include both information about how the tasks are solved, the participant's expressions and their comments on emotional reactions.
Measures	• After each task ask for emotional reactions, and score them (emotional wheel).

Table 21: Usability test design for tests with older adults and service receivers in need of care.

Tasks	• Register for iCareCoops (computer only)
	• Join a Cooperative
	• Reply to a message (There has to be created a message that the test person can answer)
	• Order a service and schedule it
	• Answer a poll (There has to be created a poll to answer)
Users	5 older adults in need of care services from each location (ZDUS and ZHAW).
Product	iCareCoops Information Solution UI Prototype III
Environment	Setting with computer with Wi-Fi, moderator sits next to user

Methods	• Thinking Aloud with or without video recordings. If it is decided not to make video recording during thinking aloud test, then an observation study with note taking during test needs to be performed. • Notes are to include both information about how the tasks are solved, the participant's expressions and their comments on emotional reactions.
Measures	• After each task ask for emotional reactions, and score them (emotional wheel). • Number of obstacles preventing users from completing tasks

6.6 Experts Reporting

It was suggested that technical experts test the prototype prior to the end-user tests. The aim was to identify possible bugs and other usability problems for performing basic tasks and give suggestions for improvements. These experts were ICT engineering students who are familiar with website-/product testing. After the test, the experts made a Q/A-report on the product's usability. Findings and suggestions were noted in a summary, so results could be incorporated into an updated prototype III.

6.7 Thinking Aloud Test

As mentioned in Chapter 5, the arguments for choosing the thinking aloud test is that it gives us a list of identified usability problems for performing basic tasks as described by Gregorsen (2013). It thus is able to contribute to answering our research questions. In addition, the thinking aloud test gives the moderator the opportunity to ask for suggestions for improvements of the product and business-related questions.

In a digital environment, thinking aloud is a frequently used method in usability tests. In most of the research on websites' usability, tests in which a user is given a set of realistic tasks are set up, in our case for example a cooperative manager offering care. We request that the test persons perform the tasks thinking aloud while testing the prototype version reached at this stage. The thinking aloud test begins with a brief introduction containing information on the purpose of the test, interviews, and testing procedure. For the prototype II test, all test persons were first testing the iCareCoops web solution because they have to be registered before they can test the web and the app solution. The same procedure was conducted in prototype III testing. The participants filled out an Informed Consent document before test. This declaration was prepared by the individual partners prior to testing, and could be re-used for prototype III tests. An English version is included in this report (see Appendix IV – Informed Consent). A short overview on the test assignment was offered to let participants become familiar with the "thinking aloud" technique and the way to collect emotional data is introduced.

Thinking aloud requires the users to verbalize all thoughts while working with the system in order to give a better understanding of their interpretations or potential misconceptions of the interface provided (Nielsen, 1994). In this part, a moderator is present and is supposed to help the test person think aloud. Sitting next to the participant, the moderator's task is to gather the participant's expressions of emotions and combine them with the situation in which they occurred. Each group will receive realistic tasks. While performing tasks, the audio will be recorded. The video recording includes screen capture, and capture of the participant's face. The latter involves only those who have accepted video recording of their faces. It is suggested that the programme for video recording used should be Camtasia by Techsmith, https://www.techsmith.com/camtasia.html.

The benefits of recording audio and video of what happens on the screen and record the face of the test person is that it gives the opportunity to analyse emotions in connection to tasks. All three methods were synchronized. Furthermore, the recordings give the opportunity to replay if needed while analysing. It is suggested that the test design of the app will be similar to the test design of the iCareCoops solution (web part) except for the screen recording, this could be replaced by external video recorder.

Requirement for the moderator is to be polite and neutral when asking questions and giving comments. The moderator has two main tasks during the scenario with the test person: First, to ask questions, if the test person stops thinking aloud. If the test person stops working for 3-4 seconds, then the moderator should make a comment or ask a question – for example "what are you thinking?". Second, to observe emotional expressions participants show during the tasks (see the following Chapter 6.8),

The observer has one task during the scenario, which is to observe what the test person is doing on the screen and document this in order to answer the 6 research questions. Conducting the analysis, it is possible to use the recordings from the thinking aloud test if necessary.

If any test persons couldn't solve the tasks or if they were unable to continue, the moderator guided this person through the problems.

6.8   Emotional wheel

The second task of the moderator, as mentioned above, was to observe emotional expressions during the tests. Before testing, the moderator printed and included the emotional wheel (see Appendix I – Emotional Wheel Analysis).

After each task, the moderator asked what emotions were evoked and to what degree. Participants could choose between following emotions: anger, frustration, sadness, happiness and joy. The participants scored these emotions on a numerical scale from 1-5, where 1 is the lowest degree, and

5 is the highest degree of emotions; and 0 is neutral. The choice of emotions and the way to score are inspired by the Emotional Wheel (Fontaine, 2013). The reason for analysing emotions by using the emotional wheel is that it gives the opportunity to investigate usability issues.

6.9   Test results to be collected, analysed, and reported

Prototype III tests should answer the following research questions:

1.   How useful is the iCareCoops solution for the user or in the user's organization?
2.   How easily do the users solve the tasks?
3.   What obstacles prevent users from completing the tasks?
4.   Which interface elements are problematic/ helpful?
5.   Which interface features or tasks cause emotional reactions, and to what degree?
6.   Which suggestions do users have to improve the product?

Analysis of the audio and video data from the think aloud test were carried out.

6.10 Experts II test reporting and summary

Prototype III expert tests II, conducted by VIA ICT students, were performed in May 2017. The experts reported 18 bugs in total. Several bug reports described problems with functionality such as change of language, lack of function when tapping buttons, problems with registration and lack of functionality in the search field. For details see the bug reports listed in Appendix VII – Bug Report Expert test I prototype II.

6.11 Thinking Aloud Test and Emotional Wheel Analysis (qualitative)

The video and audio of the thinking aloud test was analysed in ways inspired by the method described by Malterud (2011). For a brief English summary of the method, check Chapter 6.13 . The findings from prototype II testing were incorporated into prototype III. The same procedure was repeated in prototype III tests with cooperative managers, care professionals and older adults in need of care.

The emotions gleaned during the thinking aloud test were analysed by associating them with the task during which they occurred. This provides an overview of the emotions associated with each task.

For all tests, a set of qualitative data was derived from the measured usability criteria during the session. For the data collected in each iteration, SYNYO, SIVECO and IDEAL got the result for further processing and improvement on the iCareCoops solution.

In this analysis it was not relevant to make quantifications of errors, as this did not make sense in terms of this small population of test individuals (Kvale & Brinkman, 2015). If a test participant discovers a problem, this issue was relevant to add to the results, as this individual can also be representative of a larger population of users.

A report on what the test groups in total have stated was made. The qualitative data collected was assembled in a report with a summary of the study, as well as a discussion of implications. This provided recommendations to improve the solution.

6.12 Emotional wheel analysis (quantitative)

The emotional test score is quantified in each of the five categories: anger, frustration, sadness, happiness and joy and the degree of emotion evoked (1-5). If no emotions are evoked, we used 0 for a neutral reaction.

If the average level of the emotions anger, frustration or sadness after a given task reached 3 or more, this is an indicator that it is relevant to reconsider and redesign the certain functionality of the iCareCoops solution. The emotions happiness and joy give an impression of aspects of the product that have a high usability. This contributes to a methodological triangulation which supports findings in the qualitative analyses. The emotional wheel was ready for printout (see Appendix I – Emotional Wheel Analysis) so that it can be used during the thinking aloud test.

6.13 Analysis of the semi-structured interviews using systematic text condensation

The audio containing the qualitative interviews was analysed in ways inspired by the method described by Malterud (2011; 2012).

Transcription

The recorded interviews were structured into written form in order to prepare it for further analysis. In this phase, the interview was changed from an oral to a written form, the so-called transcription. The procedure involved going ahead and writing down the interview word by word. It is time-consuming to transcribe the entire interview. Therefore, it is suggested that only important pieces of the interview were transcribed (i.e. the parts where the six research questions were answered), in order to prepare each code category for further cross analysis. We suggested that notes are taken in a program that can bookmark the text while the interviews are conducted and, if necessary, also afterwards when listening to the recorded interview. It is suggested to use OneNote for the task because it can contain audio and meet the need of bookmarking.

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Coding

The first step was to code each of the test group recordings of interviews in categories corresponding to the research questions described in Chapter 5.1. It is suggested that coding is made during an interview as described previously in following categories: conformity, functionality, effectiveness, satisfaction.

From coding to meaningful categories

The second step was to condense the content of each category in each interview, thereby presenting the most important findings. The meaning appears in a condensate. This means gathering sections of text that belong to each code.

Interpreting

The third step was to conduct aa analysis between interviews so that each of the categories will be cross-analysed. Thereby, the text sections were sorted according to patterns, and represented in a condensate of meaningful text, according to the categories. Then descriptive statements were made according to each category and the condensate contained the most important themes as derived from all interviews. It can be useful to do this in co-operation with another researcher in order to identify more aspects. It was important to avoid drawing conclusions that do not correspond to the data at this stage.

The conclusions from the analysis of the interview were incorporated along with the findings from the thinking aloud test and the emotional wheel analysis.

6.14 Results

End-user tests of prototype III were conducted with cooperative managers, care givers and older adults in need of care in Germany, Switzerland, and Slovenia. Tests with cooperative managers were conducted in Germany and Slovenia. Tests with caregivers and care receivers were conducted in Slovenia and Switzerland. In the care cooperative Riedlingen, Germany, seven managers (three female and four male participants) tested the solution. In Slovenia, five managers (all female), five care givers (all female, all non-professional/informal caregivers) and five older adults in need of care (two male and three female participants) tested the solution. ZHAW conducted end-user tests with older adults in need of care (seven persons, five women and two men, aged between 70 and 78 years) and care givers (three women and one man, two nurses, one occupational, and one physiotherapist, aged between 33 and 61 years).

End-user feedback was collected throughout the prototype III test by a second researcher who observed the tests. In addition, the tests' audio and video were recorded. Both sources were analysed as described in D5.1 in an approach inspired by the method of Malterud (2011). Key passages from the

user feedback have been transcribed and coded into the six pre-defined categories in order to answer the six research questions. As the tests have been conducted in Slovenian and German, the coded and condensed data also had to be translated to English. The translated data was grouped in one spreadsheet for interpretation. Key takeaways were derived from the data which can be integrated into the next iteration of the web and mobile prototypes.

Conformity

For the first category, the main research question was "How useful is the iCareCoops solution in the user's organization?" Furthermore, we collected suggestions to improve the software. All users (managers, care givers, care receivers) were in general positive about the web solution; however, there was a number of requests regarding the conformity of the solution in terms of consistency in colour usage and colour coding for different roles, wording (especially regarding the distinction between the menu buttons "My Cooperative" and "Cooperatives"), and button placement. Members of all three user groups claimed that it was confusing that the same function does not have the same colour within the solution.

Managers were happy with the differentiation of various roles members can have ("*this is very useful*"), however, they asked for colour coding for different roles; and they asked for more possibilities of distinction – one manager stated that it is a very useful tool for member management, but different criteria for each member are needed (more roles, services, the function within the cooperative etc.). Furthermore, the order in which items in the different lists (e.g. list of services provided by a cooperative) caused confusion – "*new services should be at the top of the list, not at the bottom*". Some managers and care receivers also asked for a simplification of the menu and the elimination of unnecessary duplication such as two different maps or what they perceived as duplications, i.e. services and service categories.

Also, although they asked for simplification of the solution in general, managers asked for additional features such as a filter functionality for services, the possibility to sort products by category rather than by brand, and a personalisation of the dashboard (to show the main relevant information for each member).

Functionality

The second category was aimed at the functions of the platform and how easy it was for users to solve the tasks using these functions. Users faced a number of difficulties: Registration was a problem for some users, a manager and a care giver claimed that especially older adults would not be able to register themselves. Especially for care receivers, but also for some care givers, it was difficult to understand the difference between login and registration. This became obvious because all of them tried to register in the login section. Most of the older adults and care givers needed help to find the "REGISTER" button on the right top. Only one health professional directly found the registration button

at the right corner on the top, when asked to register to the iCareCoops website. He was a person with a lot of experience in registering and websites. All the other health professionals did not find the register button at their first try and instead tried to register in the log in field. Trying to request to a cooperative the button "BEITRITTSANFRAGE SENDEN (SEND JOIN REQUEST)" was not easy to find for some care givers. They had the tendency to choose the "KONTAKT (CONTACT)" button and to write an e-mail to request. Conversely, they experienced no problems with login out from the website; and although seniors experienced problems with registering and logging in, they did not experience problems with logging out. However, one of the seniors did not understand why the login field appeared again after logging out.

Besides the problems with registering and the request to join a cooperative, both care givers and senior users reported problems with the chat format of the e-mails. They found it irritating, because the appearance was different to the appearance of the program that they were used to. Both care givers and care receivers tried to open an e-mail by selecting the sender's name button. This resulted in irritation, as the sender's profile opened. Moreover, it was not clear to care givers that the bright presentation of the e-mail indicated an e-mail that had already been read, while the dark presentation of the e-mail indicated an e-mail that had not been read before. In contrast to the e-mail-program they were used to, the envelop icon was closed. When answering an e-mail, care givers were irritated that the name of the receiver was not shown in the field "AN (TO)". Moreover, some of the care receivers were insecure, if a message already had been sent because it was not shown at the website. Furthermore, some of them experienced troubles to exit the receiver dropdown menu. Thus, regarding the message functionality, some care receivers mentioned that they would prefer writing an e-mail instead of clicking a button. One person mentioned that she would prefer asking to join direct on the homepage of the chosen cooperative, instead of the iCareCoops homepage. Care givers recommended that e-mails that had been replied to should be visible as replied e-mails.

The two menus on the left and on the top caused confusion for some users. Also, certain areas/tasks were difficult to find for users: An option to vote for polls (care receiver), member invitation (manager) or the option to edit a cooperative (manager) was difficult to find for many users. While answering a poll, the button "NEW REPLAY" was irritating and misleading to both care givers and care receivers; and especially senior users were unsecure what to do. Care givers expected only the possibility to choose a predefined answer. Moreover, the meaning of the button "VOTE" was not clear to all. One participant mentioned his need for an eye-catching signal that indicates a new poll. Furthermore, the statistics shown in the poll was not self-explanatory to all senior users. Lastly, one health professional users mentioned that the huge amount of information lead to insecurity and irritation.

The distinction between services and service categories was unclear to the managers; they asked for an elimination of "service categories". Further problems in relation to functionality were scheduling new tasks. Senior users experienced problems with the German and English terminology, a problem

that was also experienced in the Slovenian tests. On one hand, the German terms appeared to be unfamiliar to the users (e.g., the term "DIENSTLEISTUNGEN [TASK]" and "DIENSTLEITUNGEN VERWALTEN [TASK MANAGEMENT]"). On the other hand, there were still untranslated English terms on the website, partly not understandable for the senior users. After scheduling a new task, the wording of the feedback "ÄNDERUNGEN ÜBERNOMMEN (CHANGES SAVED)" was very irritating for all senior users, because there was nothing that had been changed. Further problems in relation to functionality were scheduling new tasks. The health professional users experienced problems with the term "DIENSTLEISTUNG VERWALTEN (TASK MANAGEMENT)". Moreover, the difference between "MY TASKS" and "ALL TASKS" were not comprehensible at first glance. Additionally, it was irritating that the page "MY TASKS" opened, after a new task was accepted and/or the bottom "TASK MANAGEMENT" had been chosen. Moreover, while she was scheduling a new task, one person did not notice the field to define the date, because it was empty. In contrast, it was easier to find the field to define the time, as it was visible.

Last, but not least, senior users experienced problems with starting a new discussion in the forum, because they had to choose a category before they could start an own discussion. This sequence was not clearly described and caused confusion. Moreover, the terms "FORUM" and "ERSTELLEN (SUBMIT)" appeared not to be clear.

Overall, users claimed that the solution should be simpler and more straightforward, especially for caregivers and care receivers; and that support was needed.

Effectiveness

The third category aimed at investigating whether certain obstacles prevented users from completing the tasks. All users agreed that the main functionalities were covered by the solution; however, they identified areas of improvement: Navigation in general was not easy for many managers and some of them experienced it as inconsistent, but at the same time they claimed that "*once the principle is understood, the solution is easy to use*". Especially inconsistencies in the translations and the terminology (e.g. different usage of the term "task") proved to be an obstacle for managers, as well as non-transparency in the solution itself. Furthermore, the possibility to invite members should be limited to one option (instead of two buttons), since this also caused confusion in the manger group. One user also pointed out that there are "*too many commands*" in general.
It is worth mentioning that a high rate of users of all three groups claimed that no bigger obstacles occurred that prevented them from completing the tasks. However, some care givers and care receivers mentioned that the solution is only understandable for users who are accustomed to ICT-solutions.
We additionally asked users which interface elements they perceived as problematic or as helpful. Apart from colour usage and colour coding, as mentioned in the category conformity, most of the users

mentioned the formatting of the date (mm/dd/yyyy) for registration as confusing. Even though the required format was defined in the date field for the birthday, it disappeared by clicking in the field, which caused confusion. Furthermore, one care receiver had difficulties in distinguishing between functions, icons and menus. Moreover, there was no information about setting the password; more specifically, that at least seven letters were required for setting a password. When one field was not completed in a correct way, every word or number that had been inserted before disappeared when clicking the "REGISTER" button. This resulted in the experience of frustration of all users. Some managers mentioned that the design was not very inviting, but the overall solution was useful nevertheless. Several users claimed that training to use the solution was needed.

User interface effectiveness

The results of the usability tests revealed problems in relation to the interface effectiveness. One of the problems was that most of senior users did not find the menu bar on the left side by themselves. We had to bring the menu bar to their attention. Thus, they were not able to complete their first task after the log in – that was finding the e-mails – independently. Senior users could benefit from our support and most, but not all of them, were able to find the required buttons more quickly. Another problem was that when the senior users were searching a specific information, field or button, they did not scroll the whole way up and down. Consequently, they did not find what they were searching for. Moreover, increasing sizes of the letters appeared to be irritating, due to the consequence that a smaller cut-out was visible.

Overall, the surface of the website was not easy to understand for the senior users and more guidance of the user was required. The results revealed fewer problems in relation to the interface effectiveness for care givers and managers than for the senior users. However, some of the care givers, like older adults, had trouble to find the menu bar on the left side of the website. They mentioned, that their attention was caught by the bright centre of the website. Therefore, they did not notice the black bar on the left side of the website. However, with the time they got used to the website and the navigation became easier.

Satisfaction

The last question aimed to investigate emotional reactions caused by interface features or tasks. Emotions ranged from happiness and joy, especially after successfully completing a task, to anger and frustration with certain features. Especially when users could not solve a task or experienced problems in recognising functions, frustration was high (among all user groups). Furthermore, the status of the solution as a prototype, i.e. its incompleteness, was a cause of frustration or dissatisfaction to care givers. Additionally, a manager wished for a more thorough explanation of the roles, and several managers asked for a description of the distinction between service categories and services. On the

other hand, once they understood the principle of action, users (among all user groups) were satisfied. Certain functionalities such as member management and polls were perceived as very useful/practical, and the idea of care cooperatives was valued; and one care receiver even claimed that the solution was intuitive and thus satisfying.

The results in relation to satisfaction by senior users revealed the need for more detailed and precise feedback, requested by both senior users and care givers. For example, after sending a request to join a cooperative or scheduling a task, a feedback like "We got your request and will answer within 24 hours" would be favoured. Moreover, senior users suggested including information about the subsequent use of the collected data and the specification of search results. Care givers, on the other hand, experienced frustration when they used the mask for registration, especially when they did not successfully complete the registration field. Moreover, they missed precise feedback to their actions. For example, they would appreciate information of subsequent steps after submitting a request or establishing new tasks. Overall, they experienced difficulties to get an overview of the website. For senior users and care givers, the emotional wheel task "Register for iCareCoops" evoked frustration for four out of seven senior users and two out of five care givers. Three persons scored level three in frustration and three scored level two. One person felt anger at level one. The "e-mail" task evoked the feeling of frustration in four out of eight, with three in level three and one in level five. One scored level three in sadness. All in all, these two tasks must be taken into account. In general, the other tasks scored mainly positive emotions but with a few test persons scoring negative feelings in each task.

Conformity

Even though the font size was already enlargeable to a certain degree, users had difficulties especially with the font size of text that to be completed by users. The same can be said for the use of symbols, terms, and content, as well as an emotive and attractive design. The amount of information seemed to overwhelm some users.

One senior user said: "*Digitalization is inevitable. But the technic should support one's one initiative and the personal responsibility. User should not be only 'receiver' but also 'creator'. The software should not serve only commercial interests*."

7   CONCLUSION AND OUTLOOK

During our test of the paper prototype, expert walkthrough prototype I, prototype II and III tests, a great amount information were provided about the usability of the iCareCoops solution.

Present, based on the results of the last testing iteration, i.e. prototype III test, there are still a number of changes to be done to the user interface in the web solution, which could optimise usability; mainly taken from the last phase of testing, i.e. prototype III tests:

- Divisions and subdivisions should be structured more logically.
- Sequences should be logically and self-explanatory.
- Instructions should be easy to understand using a simple language
- The wording should be more precise.
- Eye-catching signals for new polls, a new e-mail, and/or a new task would enhance orientation.
- A handbook should be provided and a helpdesk be established.
- Simplify the solution even more and make specific interfaces for each user group, with a very simplified user interface for older adults, and a more detailed and sophisticated one for managers
- Improve icons and language

Furthermore, it was recommended to increase the possibility to enlarge the font size even more, especially the font size of text to be completed by users. Moreover, it is suggested to make the use of symbols, terms, and content more appealing for the users, as well as an emotive and attractive design which is eye-catching. Overall, more visual contrasts would be useful, especially the menu bar should be richer in contrasts and colours (e.g. coloured buttons and different colours for each task). Furthermore, the information should be reduced to the minimum and should be provided in a simple language. More and precise feedback for the operations, as well as precise information about what will happen next could lead to more security for the senior users and care givers. Striking signals indicating new tasks, polls or e-mails could be helpful for the senior users to notice them. In addition, the navigation should be simple in divers' directions (e.g., back and forth, up and down). In addition, it could be helpful if an explanation of the function of a button pops up while touching the button with the curser. An agenda in table form would be more clearly arranged than the given list form. Moreover, e-mails should be provided in a usual format. Last, but not least, detailed information should be provided for scheduling new tasks. Last, but not least, the information about the required format should remain visible while writing.

Next step in the development of the iCareCoops solution is, therefore, to make further tests on the app solution, as this part of testing has been partly compromised because of problems with the API. Overall the next step will be to implement the product in an existing cooperative and conduct a long-term pilot field test in this cooperative.

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APPENDIX I – EMOTIONAL WHEEL ANALYSIS

Emotional wheel analysis
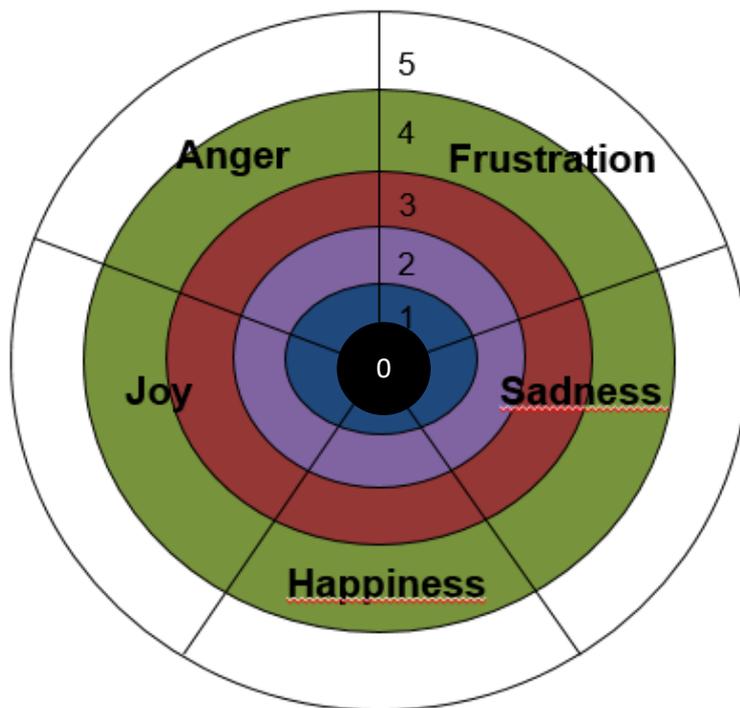
Level 0 refers to neutral

Level 1-5 refers to the degree of emotion evoked where 1 is lowest and 5 is highest.

Ready for print, so that it can be used during the Thinking Aloud Test.

APPENDIX II – ADDITIONAL QUESTIONS AT TEST SESSIONS

Has only been conducted in prototype II testing.

SYNYO's suggestions: Does your coop support volunteers? (app integration)

Would your coop use collective buying / shared logistics features?

Pricing and Payment: Who would pay?

How much would you be willing to pay? (Annual €1000?) Business perspective:

Do you have an open membership? (Registration on platform should be possible)

What type of payment do you prefer? (Annual, monthly, other)

What system would iCareCoops replace?

Which is the most relevant feature for you?

Which feature is still missing?

Does task management suit your coop management process?

Pricing and Payment: Who would pay? How much would you be willing to pay? (Annual €1000?)

User perspective:

What functions are you missing?

Do you have programs you want to have to be integrated?

What kind of processes do you use in the software?

What software do you use?

Will you also use the app? (Security)

Would you like to get a trial version?

What do you want to share with other coops? Which functions should be covered?

What do you expect from the provider? (Support)

How many people (members and staff) will use the software?

What do you consider as a specific need depending on your own country?

Do you feel comfortable with a provider from a foreign country?

What kind of customisation would be useful for you?

What do you expect from the software provider? (Support, languages)

Questions for Pilot: Could you implement the solution as it is? If no, what would be required to do so? What tools are you currently using?

Tech perspective:

 What kind of security & privacy measures are required for the solution?

What ethical issues have to be considered when it comes to logging and data usage (storage etc.)?

What is the required duration of storage (history for legal documentation, chat message storage etc. ?)

What data can be accessed by users and tech support?

Do you have any reporting needs (financial, feedback, other)?

Where shall the application be hosted (on premises or in public cloud host)?

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APPENDIX III – USE OF ONENOTE

Screen dump from OneNote showing how to code.

Interview Example

13. december 2016   11:14

How useful is the iCareCoops solution in the user's organization?	How easily do the users solve the tasks?	What obstacles prevent users from completing the tasks?	Which interface elements are problematic/ helpful?	Which interface features or tasks cause emotional reactions, and to what degree?	Which suggestions do users have to improve the product?

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APPENDIX IV – INFORMED CONSENT

Informed consent

The purpose of the Thinking Aloud Test and the follow up Interview is to be able to verify the iCareCoops solution.

When you give your consent, you participate under the following conditions:

All material will be anonymous. Video and/or audio files will be deleted after the project ended. Participants will not be identified in published material.

I hereby give permission that audio and/or video recordings in which I participate can be used for analysis and evaluation of this iCareCoops solution.

I give my consent that audio where I participate can be recorded and used for analyzing. ☐

I give my consent that video where I participate can be recorded and used for analyzing. ☐

_____
Date and signature participant

_____
Date and signature moderator   and observer

APPENDIX V – WALKTHROUGH PROTOTYPE III TEST

Care Managers Tasks

Login and registration

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Invite and remove members

Go to „edit my coop"

Click „Member Management"

You can invite new members here

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Change rights for an existing group of service providers
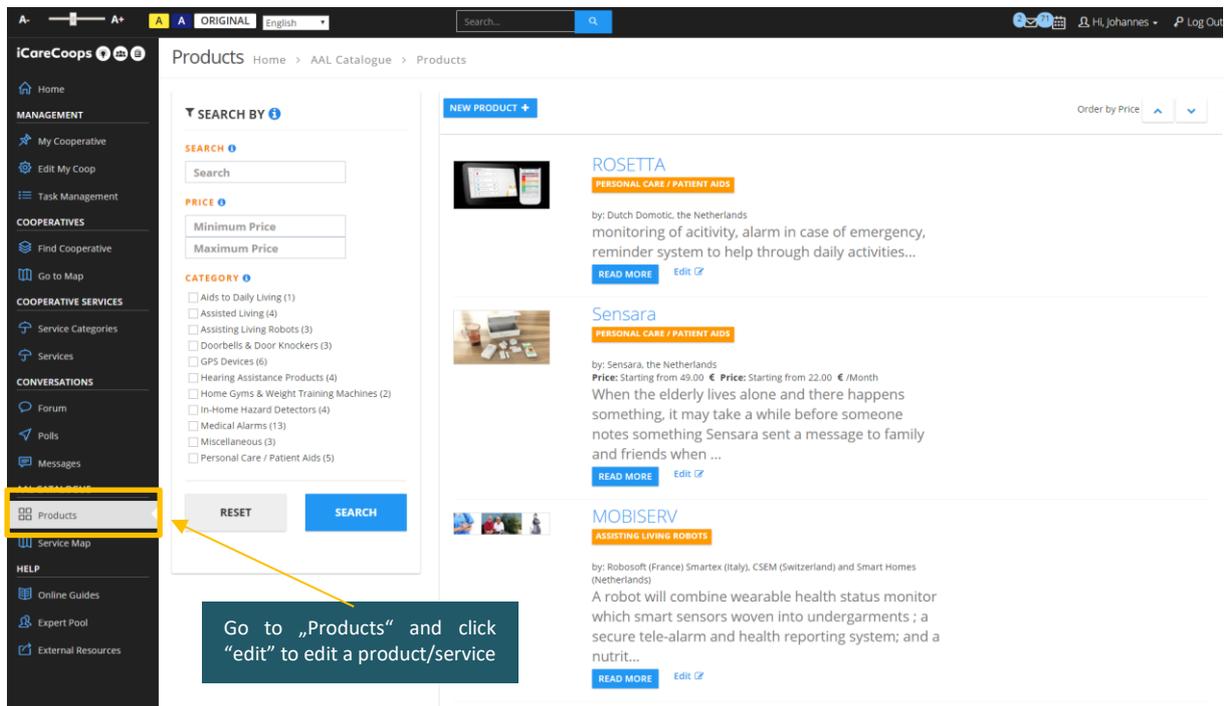
Go to „Products" and click "edit" to edit a product/service

You can edit here

USABILITY TEST (D5.2)

Show member details

Click on a member's name

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Edit content in a cooperative profile

Go to „edit my coop"

You can edit here

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Add a cooperative service

Go to „services" and click „add service"

Select a service category, insert information and submit.

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Remove a cooperative service

Create a poll for members

Click „new poll"

Add a title, a description and some answer options. You can add more options by clicking "add new answer".

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Answer question from a member

Go to „forum" and select a category.

Select a subject

Scroll down and write your reply.

Care Professionals Tasks

Register for iCareCoops (only on computer)

You can either register using the button in the top right or underneath the login field.

Select "care giver" and add required information. Birthday needs to be inserted as mm/dd/yyyy.

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Request joining a cooperative (There has to be a cooperative to join)

Click „find cooperative"

Search or select a cooperative.

Click „send join request"

Accept a new task

Go to „task management" and click „all tasks"

Click „assign to me"

Select „confirm"

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Schedule a task

Go to „task management" and click „new task"

Add the required information and click "submit"

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Answer a poll (a poll must be created in which the members can participate)

Go to „polls" and select a subject.

Click an option and click „vote".

Answer a member's question (There has to be a question from a member to answer)

Go to „forum" and select a category.

Select a subject

Scroll down and write your reply.

Care Receivers Tasks

Register for iCareCoops (computer only)

You can either register using the button in the top right or underneath the login field.

Select "care receiver" and add required information. Birthday needs to be inserted as mm/dd/yyyy.

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Join a Cooperative.

Click „find cooperative"

Search or select a cooperative.

Click „send join request"

Reply to a message. (There has to be created a message that the test person can answer.)
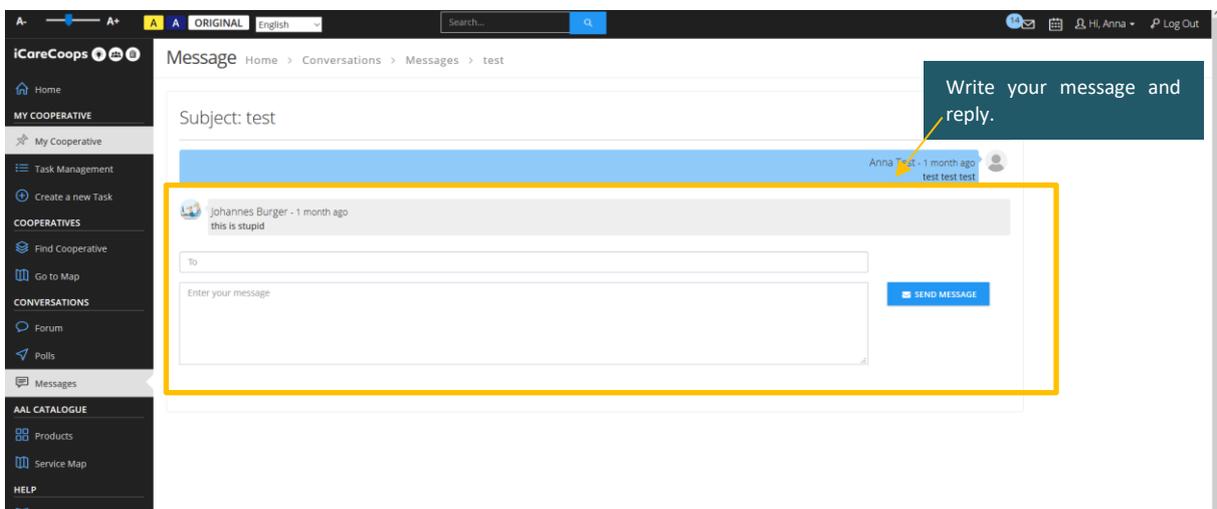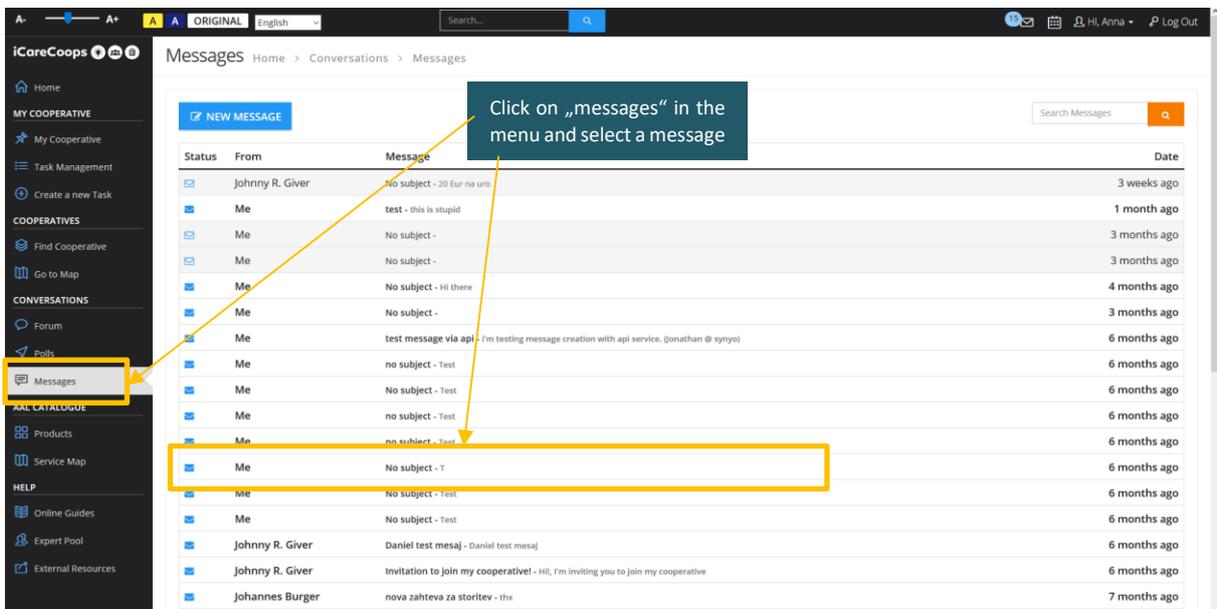
Order a service and schedule it
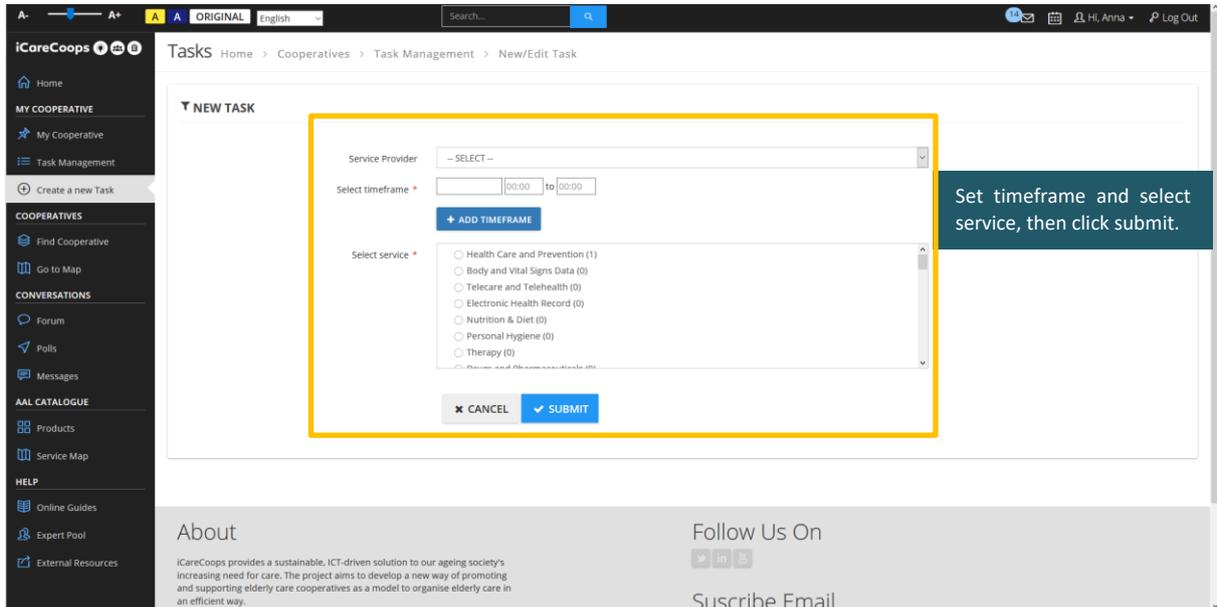
Set timeframe and select service, then click submit.

Answer a poll (There has to be created a poll to answer.)
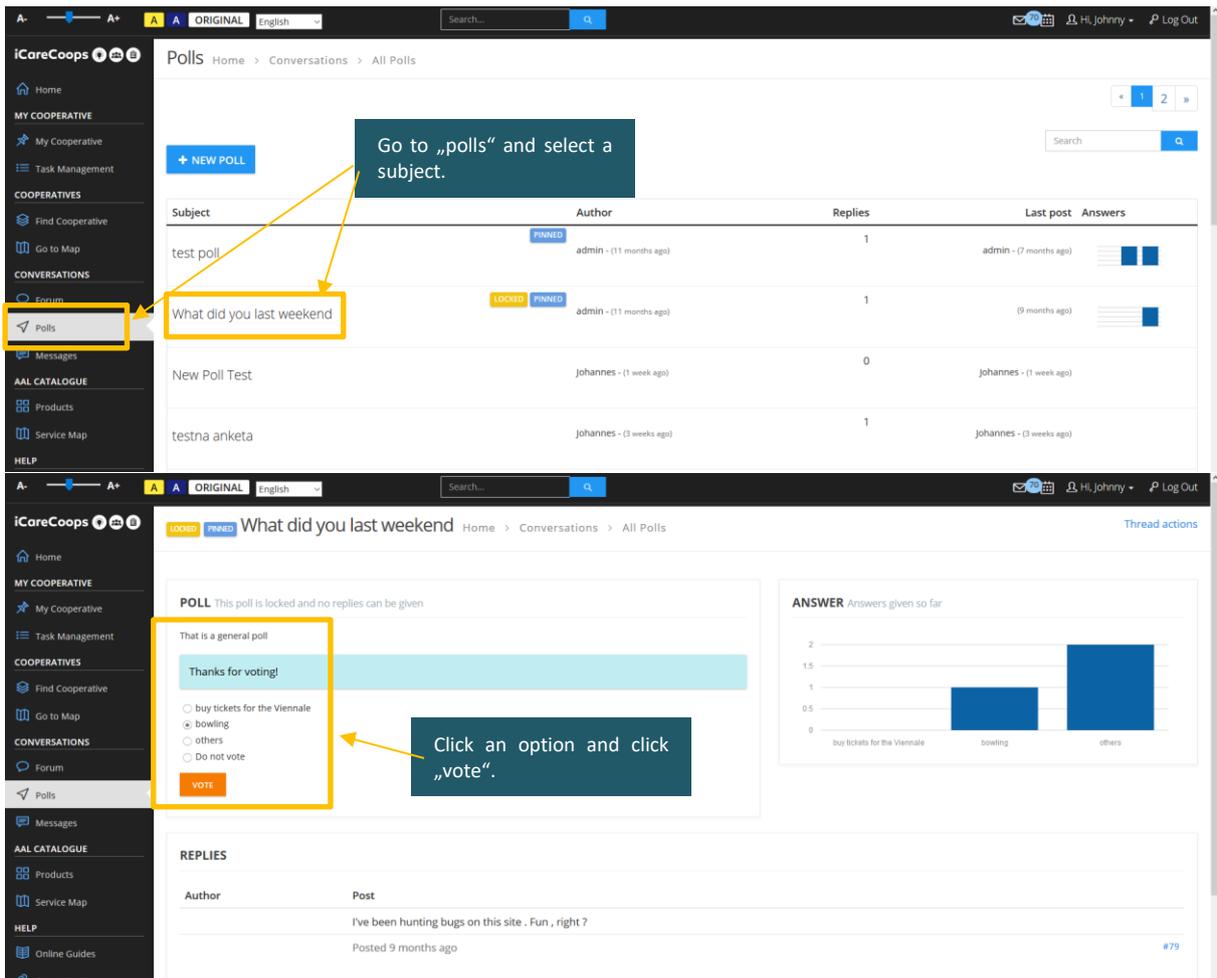
Go to „polls" and select a subject.

Click an option and click „vote".

APPENDIX VI – ADDITIONAL QUESTIONS AT TEST SESSIONS

SYNYO's suggestions: Does your coop support volunteers? (app integration)

Would your coop use collective buying / shared logistics features?

Pricing and Payment: Who would pay?

How much would you be willing to pay? (annual €1000?) Business perspective:

Do you have an open membership? (Registration on platform should be possible)

What type of payment do you prefer? (annual, monthly, other)

What system would iCareCoops replace?

Which is the most relevant feature for you?

Which feature is still missing?

Does task management suit your coop management process?

Pricing and Payment: Who would pay? How much would you be willing to pay? (annual €1000?) User perspective:

What functions are you missing?

Do you have programs you want to have to be integrated?

What kind of processes do you use in the software?

What software do you use?

Will you also use the app? (security)

Would you like to get a trial version?

What do you want to share with other coops? Which functions should be covered?

What do you expect from the provider? (support)

How many people (members and staff) will use the software?

What do you consider as a specific need depending on your own country?

Do you feel comfortable with a provider from a foreign country?

What kind of customisation would be useful for you?

What do you expect from the software provider? (support, languages)

Questions for Pilot: Could you implement the solution as it is? If no, what would be required to do so? What tools are you currently using?

Tech perspective:

 What kind of security & privacy measures are required for the solution?

What ethical issues have to be considered when it comes to logging and data usage (storage etc.)?

What is the required duration of storage (history for legal documentation, chat message storage etc. ?)

What data can be accessed by users and tech support?

Do you have any reporting needs (financial, feedback, other)?

Where shall the application be hosted (on premises or in public cloud host)?

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APPENDIX VII – BUG REPORT EXPERT TEST I PROTOTYPE II

Bug Report

Bug Title - one liner

ID

001

Submitter

XXX

Date

16/11/2016

Operating System and Browser

Windows 10, Google Chrome Version 54.0.2840.99 m (64-bit)

Bug Description
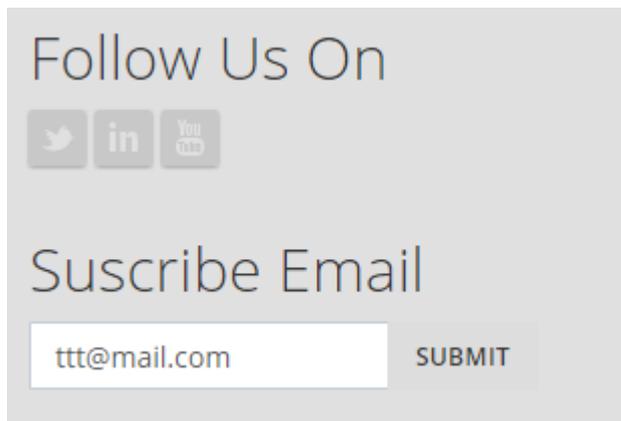
Twitter, Linked LinkedIn, YouTube and submit button are not working.

Severity

Minor

Steps to Reproduce

1. The buttons are not working
2.

Actual Behavior

The buttons are not doing anything.

Expected Behavior

They have to send you on another link in a new tab.

iCareCoops
initiate . interact . integrate

Bug Report

Bug Title - one liner

ID

001

Submitter

XXX

Date

16/11/2016

Operating System and Browser

Windows 10, Google Chrome Version 54.0.2840.99 m (64-bit)

Bug Description

On page https://soldemo.icarecoops.eu/catalogue/products text is not rigged correctly

Severity

Minor

Steps to Reproduce

1. Text is going on the image
2. Extending too much from his own space

Actual Behavior

At 100% zoom and up text is not correct. When is lower than 100% it looks ok.

Expected Behavior

Text have to look good in every type of zoom.

Bug Report

Bug Title - one liner

ID

001

Submitter

xxx

Date

16/11/2016

Operating System and Browser

Windows 10, Google Chrome Version 54.0.2840.99 m (64-bit)

Bug Description

At "Our End Users" on main page when you press read more, they send you back on main page.

Severity

Minor

Steps to Reproduce

1. The button is not doing anything

Actual Behavior

The button sends you back on main page.

Expected Behavior

The button has to send you on another link where you can read more information about the product.

iCareCoops
initiate . interact . integrate

Bug Report

Bug Title - one liner

ID

001

Submitter

xxx

Date

16/11/2016

Operating System and Browser

Windows 10, Google Chrome Version 54.0.2840.99 m (64-bit)

Bug Description

On page https://soldemo.icarecoops.eu/style-guide no one of buttons are working so you cannot change the design of website from here.

Severity

Major

Steps to Reproduce

1. Button is not doing anything.

Actual Behavior

No one of buttons are working.

Expected Behavior

Buttons have to change the website design by pressing them.

Bug Report

Bug Title - one liner

ID

001

Submitter

xxx

Date

16/11/2016

Operating System and Browser

Windows 10, Google Chrome Version 54.0.2840.99 m (64-bit)

Bug Description

On page https://soldemo.icarecoops.eu/presenter/edit you can't press Register button to get back to it.

Severity

Minor

Steps to Reproduce

1. The button is not working.

Actual Behavior

The button is not working.

Expected Behavior

The buttons have to send you back to https://soldemo.icarecoops.eu/register

iCareCoops
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Bug Report

Bug Title - one liner

ID

001

Submitter

xxx

Date

16/11/2016

Operating System and Browser

Windows 10, Google Chrome Version 54.0.2840.99 m (64-bit)

Bug Description

On forum if you try to reply something on a post you get a full page of code with text up " HttpException in Handler.php line 107:

This action is unauthorized."

Severity

Major

Steps to Reproduce

   1.   When you press the button, you get a big amount of code on your screen.
Actual Behavior

You got a big page of code.

Expected Behavior

You should get an error message where they say that you cannot reply.

iCareCoops
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Bug Report

Bug Title - one liner

ID

001

Submitter

xxx

Date

16/11/2016

Operating System and Browser

Windows 10, Google Chrome Version 54.0.2840.99 m (64-bit)

Bug Description
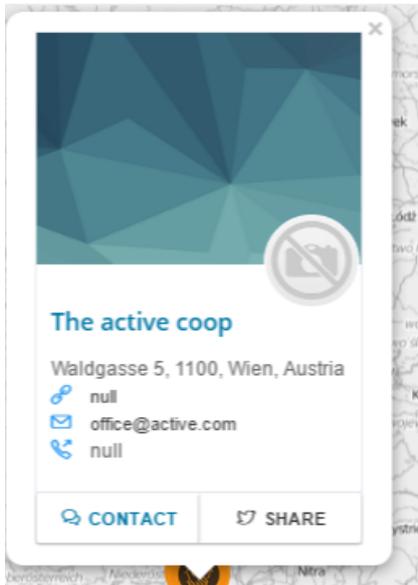
Contact button and share are not working on map page, and where company do not have telephone number or website link website is writing null.

Severity

Minor

Steps to Reproduce

      1.   Buttons are not working.
  2. When a space is empty it shows null variable

Actual Behavior

Buttons are not working.

At empty spaces site show null variable

Expected Behavior

Button have to transfer you on another link. There is no email address, website or telephone number the site just has not to display it.

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Bug Report

Bug Title - one liner

ID

001

Submitter

xxx

Date

16/11/2016

Operating System and Browser

Windows 10, Google Chrome Version 54.0.2840.99 m (64-bit)

Bug Description

On service map tag button share is not working

Severity

Trivial

Steps to Reproduce

   1.   Button is not working

Actual Behavior

Button is not working.

Expected Behavior

Button has to send you on a twitter link.

Bug Report

FatalErrorException

ID

004

Submitter

xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Education, Chrome 54.0.2840.71 m

Bug Description

When entering the username and password, the webpage encounters a fatal error exception and crashes.

Severity

Major

Steps to Reproduce

1. Find the bug – it is in: Carbon.php line 962
2. Enter the correct path of the .php document.

Actual Behavior

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```
Whoops, looks like something went wrong.

1/1   FatalErrorException in Carbon.php line 962:
      Carbon\Carbon::setLocale(): Failed opening required
      '/var/www/clients/client1/web8/web/vendor/nesbot/carbon/src/Carbon/Lang/.php'
      (include_path='.:/usr/share/pear:/usr/share/php')

  1. in Carbon.php line 962
```
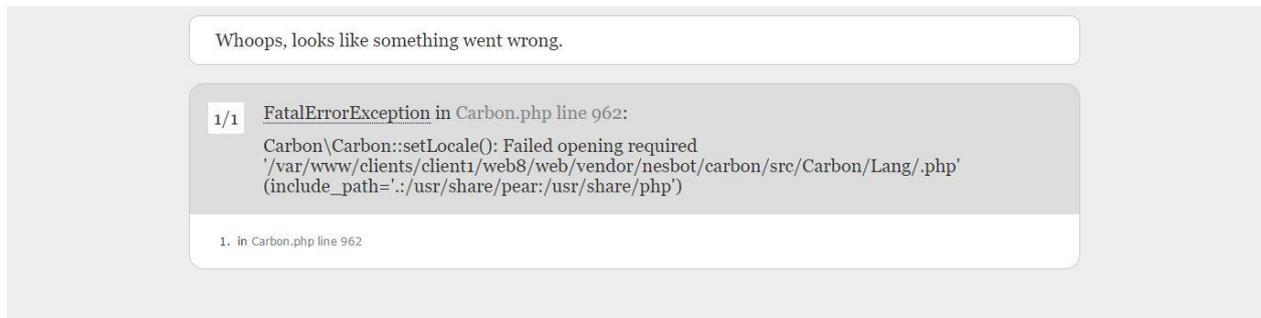
Expected Behavior

The user should be able to log in and use the platform.

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Bug Report

Not responsive menu

ID

004

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

The menu is not responsive and its layout changes when you resize the browser window.

Severity

Major

Steps to Reproduce

1. Make the menu responsive/implement collapsing of the menu.

Actual Behavior

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 (This is how the menu looks like with width = 670px)

Expected Behavior

The menu should look good on any kind of screen size and browser window size.

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Bug Report

Change in styling

ID

004

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

When the user switches to the yellow or the blue variant of the website, the font of the vertical menu becomes bigger than the original and the lines under the list elements with class "heading" change their position.

Severity

Minor

Steps to Reproduce

> **1.** In the original color scheme variant of the website, change the font size of the list elements with class "heading"(inside the unordered list with class "page-sidebar-menu") to 1.4rem

2. Change the positions of the lines under the list elements with class "heading"

Actual Behavior (go down)
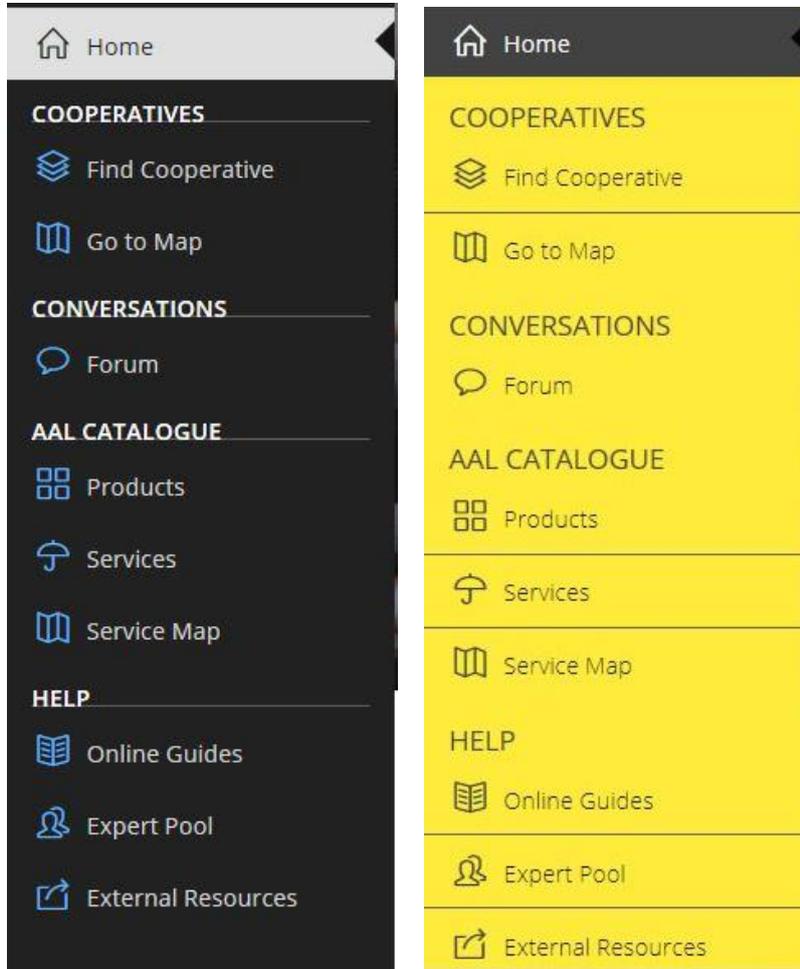
Expected Behavior

The font-size and lines' position in the menu should be consistent no matter which color scheme is used.

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Bug Report

Cannot switch between different color variants of the webpage

ID

004

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

When the browser window is resized to less than 768px, the search form (with class "form form-inline global search") intersects with the buttons for switching between color schemes and the user cannot switch between the color schemes.

Severity

Minor

Steps to Reproduce

1. Change the position of the search form (the form with class "form form-inline global search") or make the menu more responsive.

Actual Behavior

The user cannot switch between the different color schemes of the website when the browser window's width is less than 768px.

Expected Behavior

The user should be able to switch between the different color schemes of the website no matter the screen/browser window size.

Bug Report

Switching between languages and color schemes

ID

004

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the website's yellow color scheme, when you switch to Deutsch and then try to change the color scheme to the blue one or the original one, the language switches to English automatically. After that, if you try to switch to Deutsch from the website's blue or original color scheme, the language switches to Deutsch but also switches to the website's yellow color scheme.

Severity

Minor

Steps to Reproduce

1. Check the links between the buttons for the different color schemes and language versions

of the website.

Actual Behavior:

The language/color scheme changes without the user ordering the switch in the language/color scheme.

Expected Behavior:

The language and color schemes should change whenever and however the user wants them to change.

Bug Report

Broken link

ID

004

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the top navigation bar, the link connected to the image of the calendar is broken, it should lead to https://soldemo.icarecoops.eu/tasks but it does not lead anywhere.

Severity

Minor

Steps to Reproduce

1. Fix the linking problem, change the path of the href attribute of link element with class "dropdown-toggle".

Actual Behavior:

Clicking on the link does nothing.

Expected Behavior:

Clicking on the link should load https://soldemo.icarecoops.eu/tasks.

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Bug Report

Search field placeholders and search buttons are in German

when they're supposed to be in English

ID

004

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

When the user interface is supposed to be in English only, the search fields' placeholders and the search buttons say "Search" in German. This is visible in pages: Find Cooperative, Products, Services, Expert Pool, External Resources, Polls (when logged in as manager) and in the search field that is present on all of the pages (in the top menu bar).

Severity

Minor

Steps to Reproduce

1.   Change the search forms' placeholders' text and the buttons' text to English.

Actual Behavior
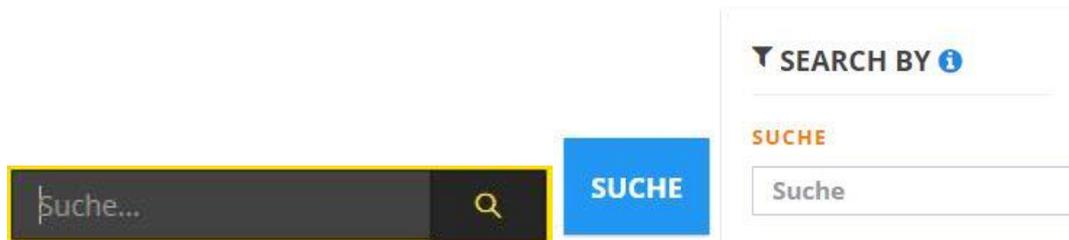
Expected Behavior

When in the English language version of the website is switched on, all text should be in English.

Bug Report

Search fields not positioned properly

ID

004

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

The search fields in pages: Find cooperatives, Products (3 search fields) and Expert Pool are too much to the right and their placeholders in the English version of the website (except for minimal price and maximum price) are in Deutsch.

Severity

Minor

Steps to Reproduce

    1. Decrease the width of the search fields.
    2. Change the placeholders' value to be in English (when the English language version is loaded)
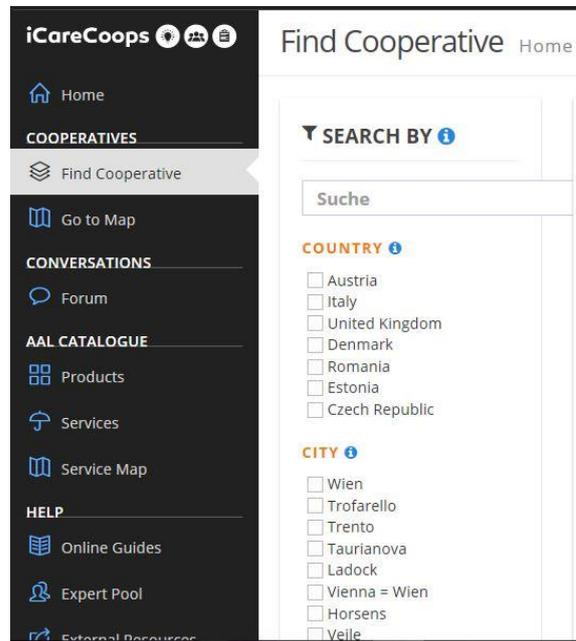
Actual   Behavior:
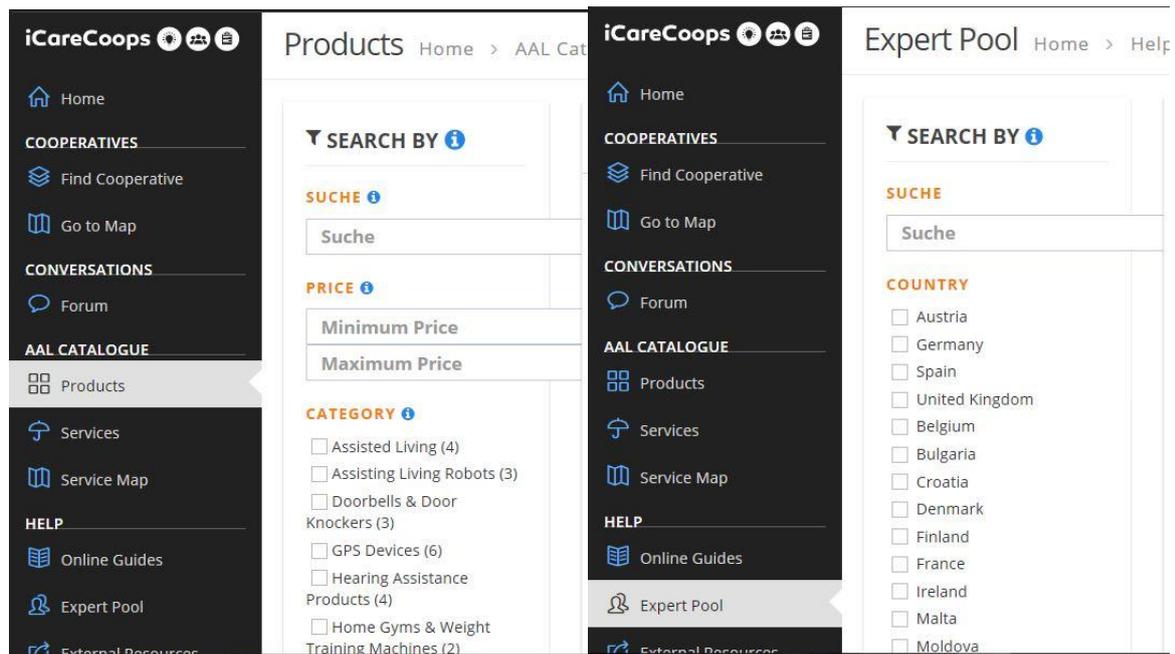
Expected Behavior:

The search fields should stay inside the search division of the webpages no matter the browser window size.

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Bug Report

Border around links

ID

004

Submitter

Xxx

Date

18/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the page Find Cooperative when the yellow or the blue color scheme is switched on, when you hover over a link (an image), a border appears around it.

Severity

Minor

Steps to Reproduce

3.   Change the styling on the linked elements in the page Find Cooperative.

Actual Behavior:

Expected Behavior:

There shouldn't be a border around the link you are hovering over.

Bug Report

Border around links

ID

004

Submitter

Xxx

Date

18/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the page Services when the yellow or the blue color scheme is switched on, when you hover over a link (an image), a border appears around it.

Severity

Minor

Steps to Reproduce

4.   Change the styling on the linked elements in the page Services.

Actual Behavior:

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Expected Behavior:

There shouldn't be a border around the link you are hovering over.

Bug Report

Misaligned labels

ID

004

Submitter

Xxx

Date

18/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the page Services, not all of the labels for the checkboxes are positioned right next to the checkboxes (some are below the checkboxes).

Severity

Minor

Steps to Reproduce

5.   Fix the position of the misaligned labels for the checkboxes in the division with a class "search-filter".

Actual Behavior:

Expected Behavior:

Each label should be on the right side of its checkbox.

Bug Report

Misaligned images

ID

004

Submitter

Xxx

Date

18/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the page Products, the images intersect with the product description.

Severity

Minor

Steps to Reproduce

6. Change the position of the misaligned images (all the images which are inside the links with class "media" which is inside the division with class "col-md-2" inside every list item with class "search-item clearfix") or add margins.

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Actual Behavior:

Expected Behavior:

The image shouldn't intersect with the item description.

Bug Report

Text does not fit the box

ID

004

Submitter

Xxx

Date

18/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the page Services, the text in the each of the services' buttons is bigger than the button itself and that's why only a part of the text is displayed. If the page's font size is increased (from the toolbar at the top).

Severity

Minor

Steps to Reproduce

7. Make the font-size (of the span elements inside the div with class "btn-group btn-group btn-group-justified") relative to the size of its container.

Actual Behavior:

 (<= Normal font)   (<=Max-size font)

Expected Behavior:

The whole text should be displayed no matter the size of its container.

Bug Report

The text is wrong

ID

004

Submitter

Xxx

Date

18/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the personal profile page of the user, instead of just "(Recent/Latest) Reviews" the text says "common.latestReviews" and instead of "Work information", it says "Workinformation"

Severity

Trivial

Steps to Reproduce

Change the text inside the span element with class "caption-subject font-dark bold uppercase" in the personal page of the user and the text inside the span element with class "caption-subject font-blue-madison bold uppercase"

Actual Behavior

COMMON.LATESTREVIEWS   WORKINFORMATION

Expected Behavior

The text should say "(Latest/Recent) Reviews" and "Work information".

Bug Report

Not the color that is supposed to be

ID

004

Submitter

Xxx

Date

18/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the website's yellow color scheme, the text in the beginning of the Home page is grey (the h1 and h2 elements with class "font-white") instead of white and is hard to read.

Severity

Minor

Steps to Reproduce

In the Home page, change the font color of the h1 and h2 elements with class "font-white" to white for the website's yellow color scheme.

Actual Behavior:

Expected Behavior:

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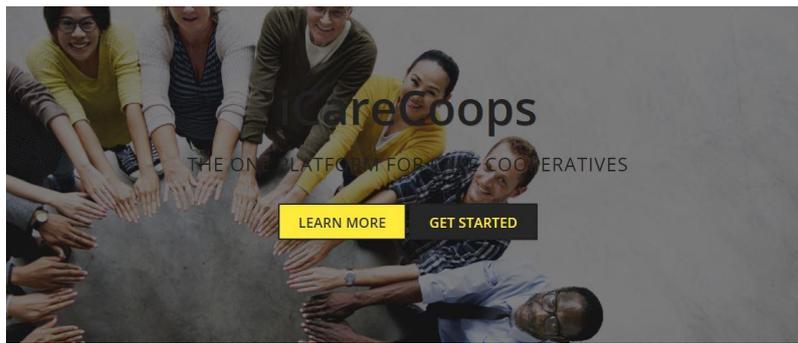
Bug Report

Displaying English text when the preferred language for the website is Deutsch

ID

004

Submitter

Xxx

Date

18/11/2016

Operating System and Browser

Windows 10 Education, Microsoft Edge 38.14393.0.0

Bug Description

In the German version of the website there are parts of text in English in the pages: Anmelden (the log in screen), Startseite (the Home page), Forum, Produkte, Services, Online Anleitungen, Expertenpool and Externe Resourcen. Also, hovering over the logo with a link for the home page, the displayed text is in English

Severity

Minor

Steps to Reproduce

Change the text to English

Actual Behavior:

English text is displayed when the preferred website language is Deutsch.

Expected Behavior:

All of the displayed text should be in German.

Bug Report

Log in crash

ID

Submitter

Date

16/11/2016

Operating System and Browser

Windows 10 home, Google Chrome

Bug Description

Can't log in to the page

Severity

Critical

Steps to Reproduce

1. Navigate to https://soldemo.icarecoops.eu/
2. Enter username and password

Actual Behavior

Website crash

Expected Behavior

Log in

Bug Report

Wrong language in search bar

ID

002

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 home, Mozilla Firefox

Bug Description

Search box placeholder text is in German even when English is selected as a Language

Severity

Minor

Steps to Reproduce

1. Go to the home page

Actual Behavior

Text in German

Expected Behavior

Text in English

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Bug Report

Map not displayed if location sharing is refused

ID

002

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 home, Mozilla Firefox

Bug Description

In the service map, if you refuse to share location information from the browser, the map doesn't get displayed.

Severity

Major

Steps to Reproduce

1. Go to the home page
2. Click service map
3. Refuse to share location information in the browser popup

Actual Behavior

The map doesn't get displayed

Expected Behavior

The map gets displayed

iCareCoops
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Bug Report

Low Contrast submit button

ID

002

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 home, Mozilla Firefox

Bug Description

In the bottom of the page there is a subscribe form, if the blue theme is enabled, the text in the submit button is barely visible

Severity

Tiny

Steps to Reproduce

1. Go to the home page
2. Scroll down

Actual Behavior

Can't see the text in the submit button

Expected Behavior

See the text in the submit button

Bug Report

Faulty link styling with alternative color themes

ID

002

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 home, Mozilla Firefox

Bug Description

When one of the alternative color themes is selected, if you hover over a tag of any kind, it makes a box appear around it which causes all sorts of visual glitches all over the website

Severity

Minor

Steps to Reproduce

       1.   Hover over a link

Actual Behavior

Box appears around link

Expected Behavior

No box appears around link

Bug Report

Bug Title - one liner

ID

003

Submitter

Date

16/11/2016

Operating System and Browser

Windows 10 Pro 64 bit. Google Chrome (54.0.2840.99), Edge (25.10586.672.0), Internet Explorer (11.672.10586.0).

Samsung Galaxy S6. Google Chrome (54.0.2840.85), Pre-installed browser (4.0.10-53).

Bug Description

After I entered the webpage from the web browsers listed above, entered username and password, this error pops up:

FatalErrorException in Carbon.php line 962:

Carbon\Carbon::setLocale(): Failed opening required '/var/www/clients/client1/web8/web/vendor/nesbot/carbon/src/Carbon/Lang/.php' (include_path='.:/usr/share/pear:/usr/share/php')

in Carbon.php line 962

Severity

Critical

Steps to Reproduce

1. Enter https://soldemo.icarecoops.eu/
2. Enter username(synyo) and password(demoforsynyo16)
3. The FatalErrorException

Actual Behavior

After I entered the username and password the error pops up, so I can't access the main page

Expected Behavior

Expected to enter the webpage using the username and password.
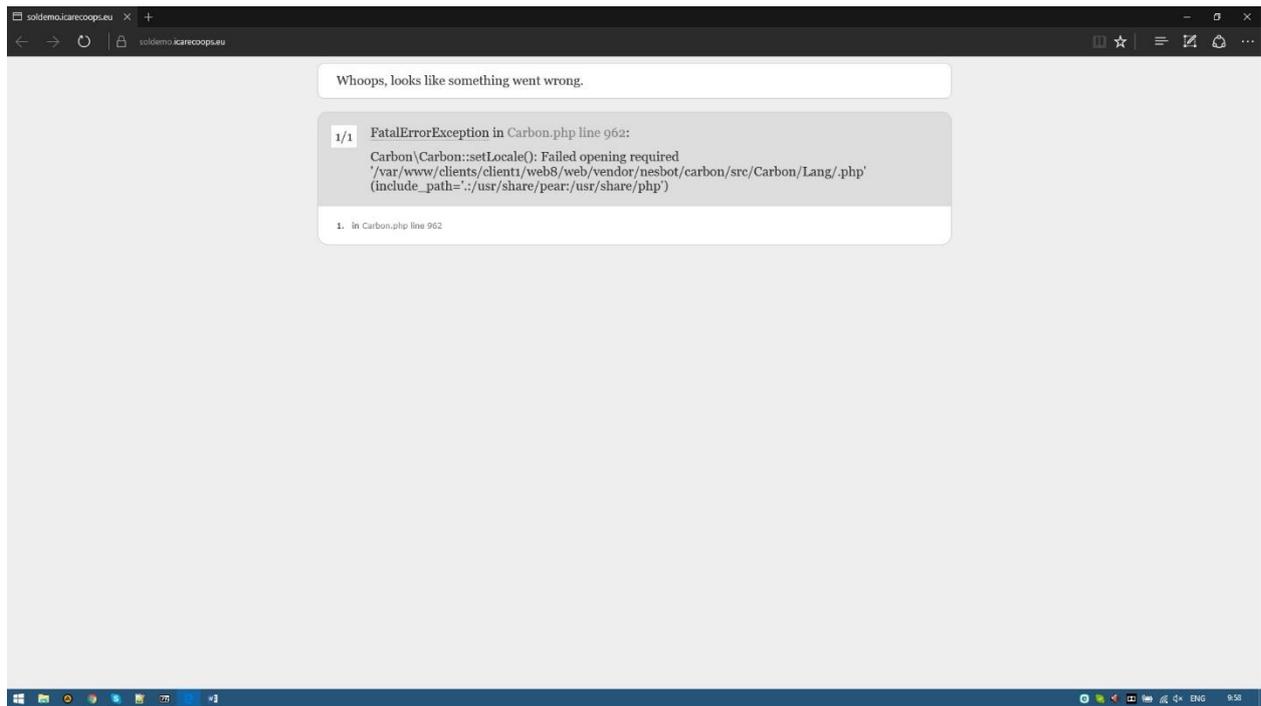
Bug Report

Bug with the responsive

ID

005

Submitter

Date

16/11/2016

Operating System and Browser

Chrome

Bug Description

Responsive bug

Severity

Major

Steps to Reproduce

1. When you change the size of your browser the left menu disappears.
2. Also, when you try to open the site with different device.

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Bug Report

Bug with template

ID

005

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Chrome

Bug Description

When you change the color of the website with Yellow it goes weird.

Severity

Minor

Steps to Reproduce

1. When you change the template of this website to yellow you can't see almost anything from the page.
2. Because of the incompatibility of these two colors (Black and Yellow).

iCareCoops
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Bug Report

Bug Title - one liner

ID

005

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Chrome

Bug Description

Problem with the buttons in the Task Management.

Severity

Trivial

Steps to Reproduce

    1.   When you go to the section "Task Management" and try to press any of the buttons ("Requestor","Status","Service","Date","Starting","Ending","Provider","Action) it changes it's icon so weird.

    2.   Also, when I click any of the buttons it changes the icon of the next button.

Id

Initials :GIZ, StudyNumber XXXXXX;

Browser: Chrome 54.0.2840.71 m, Internet explorer (Microsoft edge for windows 10)

OS: windows 10

1. Map doesn't load in Explorer (minor or not bug at all)

2. I can't access the site with Chrome (critical)

3. I don't have "envelope" (message button) in the top right on IE. Actually, most of buttons there are missing. (Major)

4. When I try to delete forum thread site crashes. (critical)

5. I can't subscribe for the newsletter. (minor or no bug at all)

6. Uploading a cover photo causes page to crash also I can upload pictures for other people. (major)

7. After I write a review I can't view it instead I see the send and rating button without the message box. (minor)

8. I can't select gender when I edit my profile. (minor)

9. Deleting information from my profile.

Steps to reproduce;

1. Go to service map field.
2. Make a forum thread, try to delete it.
3. Go to someone's profile try to upload a cover photo. Having an upload cover photo on the other's people pages is bothering me.
4. Try editing your profile and selecting a gender (sex).
5. Try writing a review on someone's else profile.
6. Put information for example "Education" and try to delete it.

Chrome Error

Whoops, looks like something went wrong.

1/1FatalErrorException in Carbon.php line 962:Carbon\Carbon::setLocale(): Failed opening required '/var/www/clients/client1/web8/web/vendor/nesbot/carbon/src/Carbon/Lang/.php ' (include_path='.:/usr/share/pear:/usr/share/php')

in Carbon.php line 962
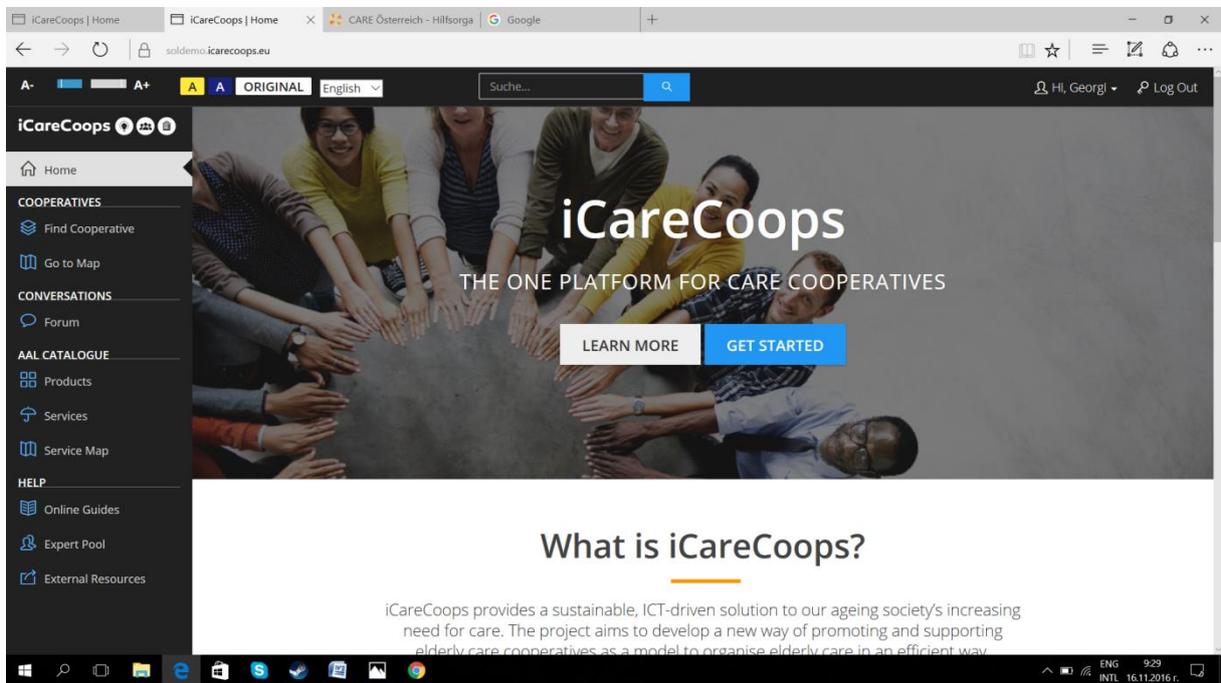
Message button is missing

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initiate . interact . integrate
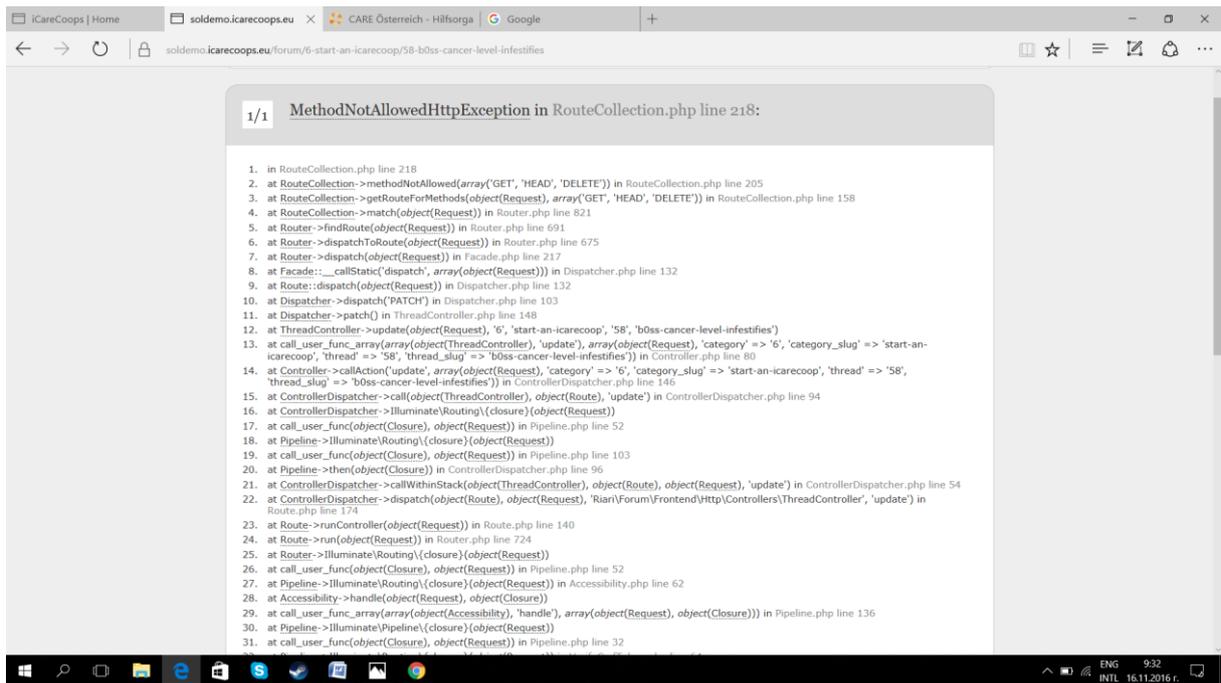
Deleting a forum thread.
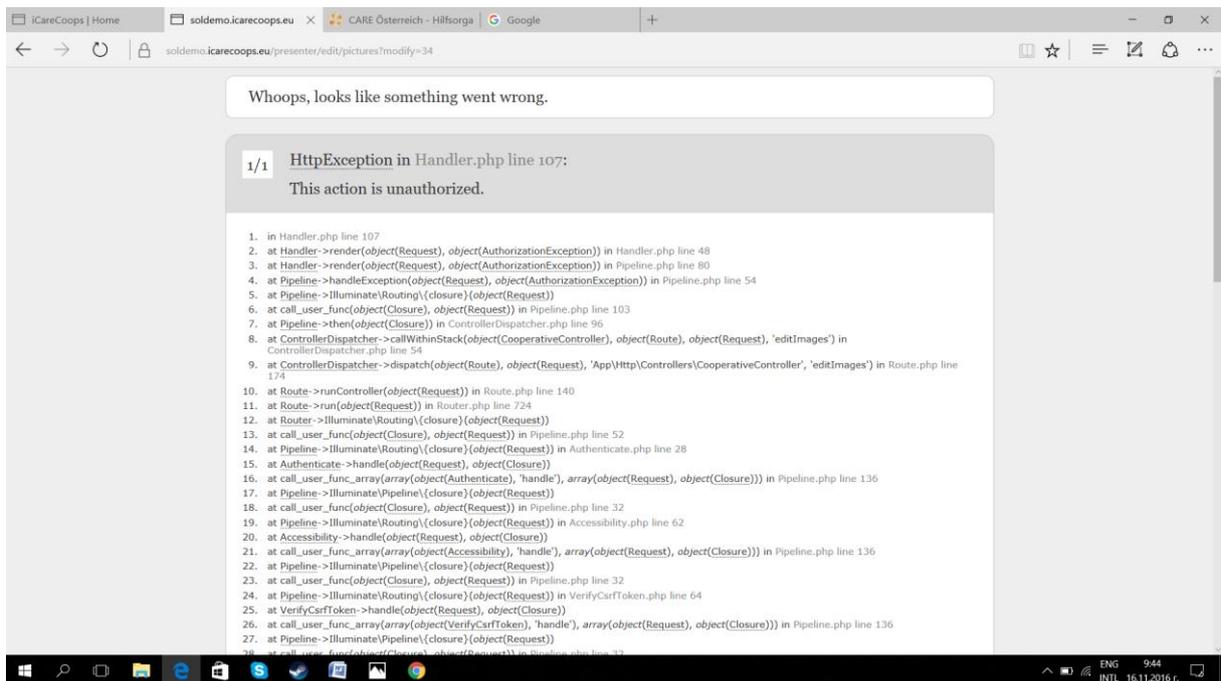
Uploading a cover pic.
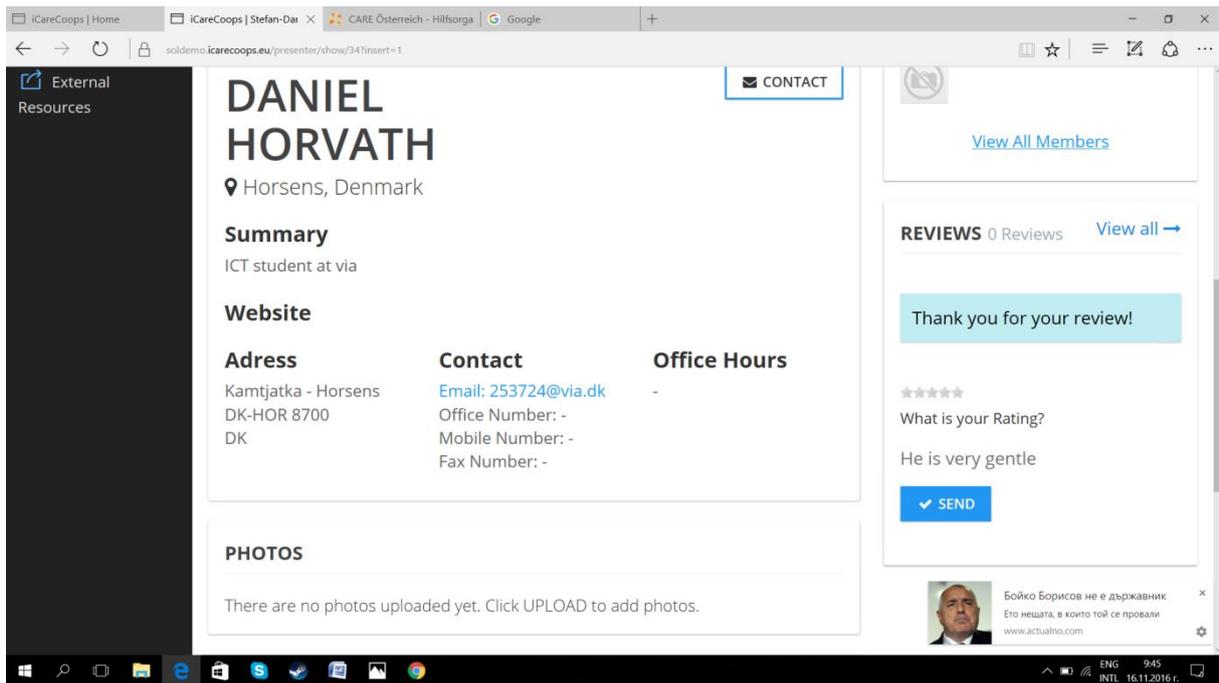
Writing a review
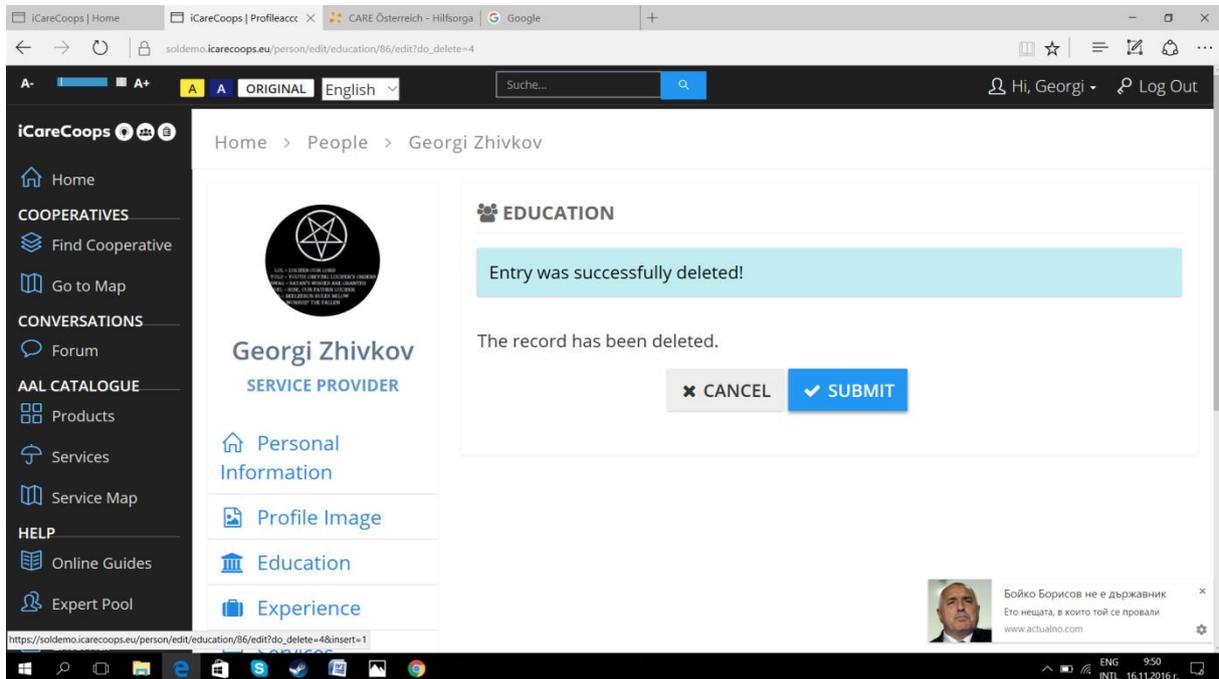
Deleting an education.

Clicking the submit button causes the page to crash.

iCareCoops
initiate . interact . integrate
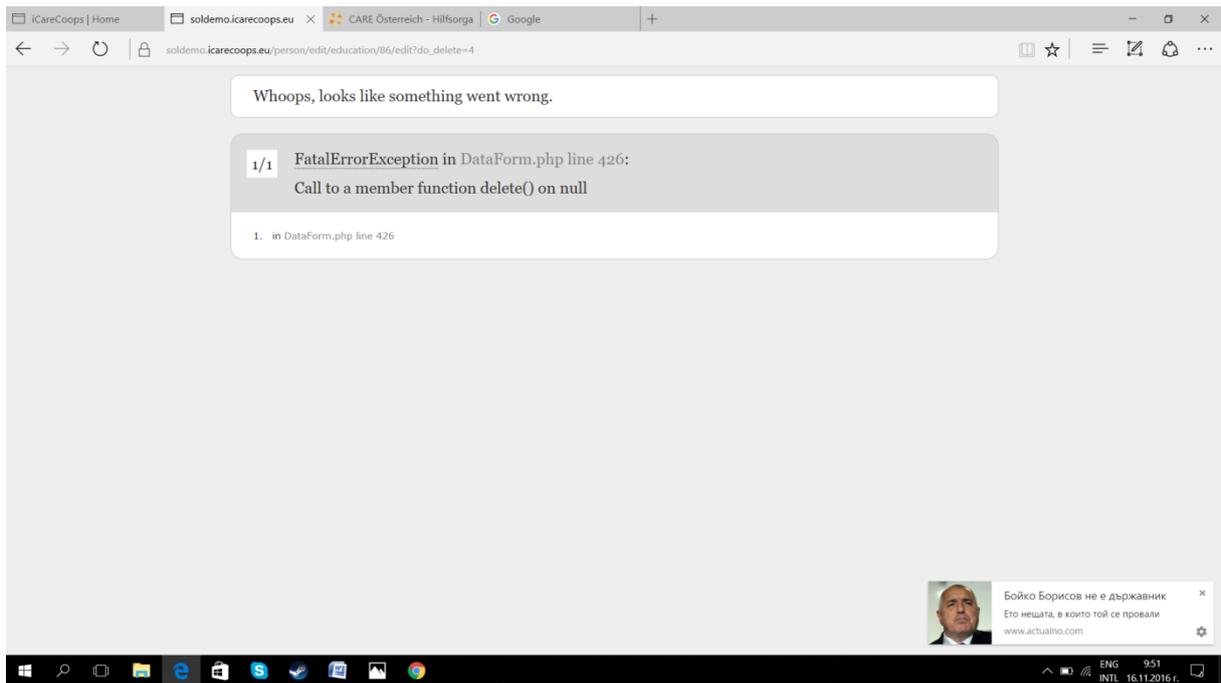
Bug Report

Bug Title - one liner

ID

006

Submitter

Xxx

Date

18/11/2016

Operating System and Browser

Browser Windows 10, Chrome 54.0.2840.99, Microsoft Edge 38.14393.0.0

1.- Bug Description

The page crashes after accessing to it in Chrome 54.0.2840.99

Severity

Major

Steps to Reproduce

Load the webpage using Chrome.

Actual Behavior
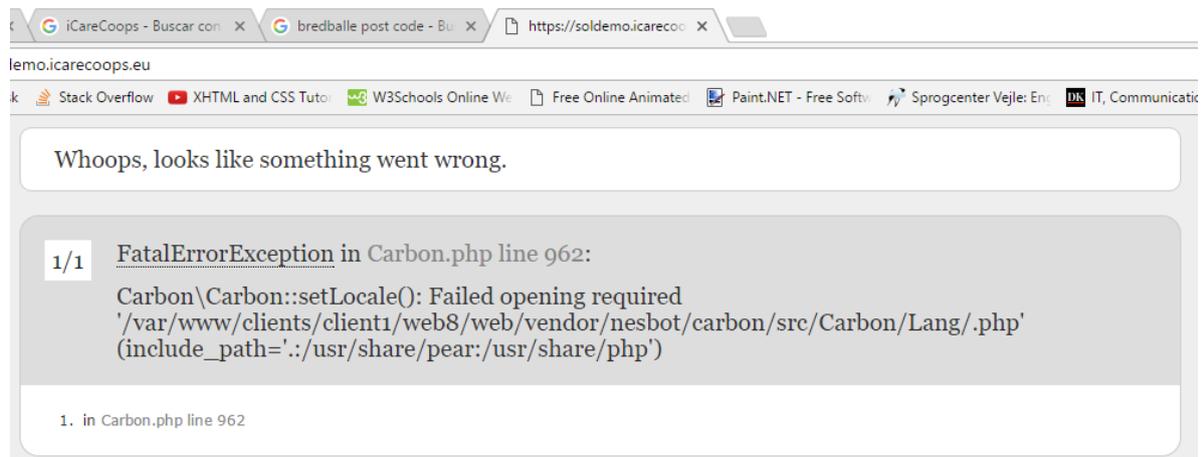
Expected Behavior

Access to the webpage.

2.- Bug description:

In the "Search" text field, the word "Suche" appears, it also appears in many of the webpage's sections.

Severity

 Tiny

Steps to Reproduce

Read the text in the "Search" text field.

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Click on "Find cooperative" in the left menu, scroll down and you'll see the button "Suche".

Suggestion:

The whole page should be in English. Change the word "Suche" for "Search" in the Html of English version of the webpage.

3.- Bug description:

The link to "Read more", about "Care givers", "Care receivers", "Cooperative manager" and the links to the social media don't work.

Severity

 Tiny

Steps to Reproduce

In the home page, scroll down and click on "Read more" in any of these sections: "Care givers", "Care receivers", "Cooperative manager".

Scroll down and click in the link to Facebook, twitter or YouTube.

Suggestion:

Create the sources to the links.

4.- Bug description:

The line divisions in the vertical menu overlap the words. It gets worse if the letter's size is increased.

Severity

 Tiny

Steps to Reproduce

See the lines in the vertical menu in the webpage, change to a different letter's size.

Suggestion:

Create a margin or padding in the lines.

5.- Bug description:

The line divisions in the vertical menu overlap the words. It gets worse if the letter's size is increased.

Severity

 Tiny

Steps to Reproduce

See the lines in the vertical menu in the webpage, change to a different letter's size.

Suggestion:

Create a margin or padding in the lines.

6.- Bug description:

The "submit" button is bigger than the text field next to it.

Severity

 Tiny

Steps to Reproduce

Scroll down to the end of the page, see to the right the text field and the "submit" button.

Suggestion:

Change button's size.

7.- Bug description:

When the webpage is yellow the letter's color in the main image are not visible.

Severity

 Minor

Steps to Reproduce

Change the webpage's color to yellow, try to read the text in the main image in the home page.

Suggestion:

Change color to white.

8.- Bug description:

When the webpage is yellow, some buttons are yellow as well, so the buttons are not visible.

Severity

 Minor

Steps to Reproduce

Change the webpage's color to yellow, click on "Find Cooperative" in the left menu, see each cooperative and under each one there's the yellow "login" button on the yellow background.

Suggestion:

Change button color to white.

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9.- Bug description:

When the webpage is yellow, all the backgrounds in the webpage are yellow.

Severity

 Minor

Steps to Reproduce

Change the webpage's color to yellow, see the background of the menus and the content.

Suggestion:

Change the menus' colors different from the main content background.

10.- Bug description:

In the products section, the product's title and description are too close to the object's image and sometimes it overlaps it.

Severity

Minor

Steps to Reproduce

Click on "Products" in the left menu, see each product, it's image, title and type.

Suggestion:

Set a margin or padding for the product image or its title and type.

Bug title

'()' behind thread titles

Submitter

Xxx

Date

16/11/2016

Operating   system   and   Browser

Windows 10 Pro 14393.447 (on a "Surface 4 Pro") on Microsoft Edge 38.14393.0.0

Bug   Description

On the forum there is a '()' behind every title

Severity

Minor

Steps to reproduce

1. Navigate to the Forum page
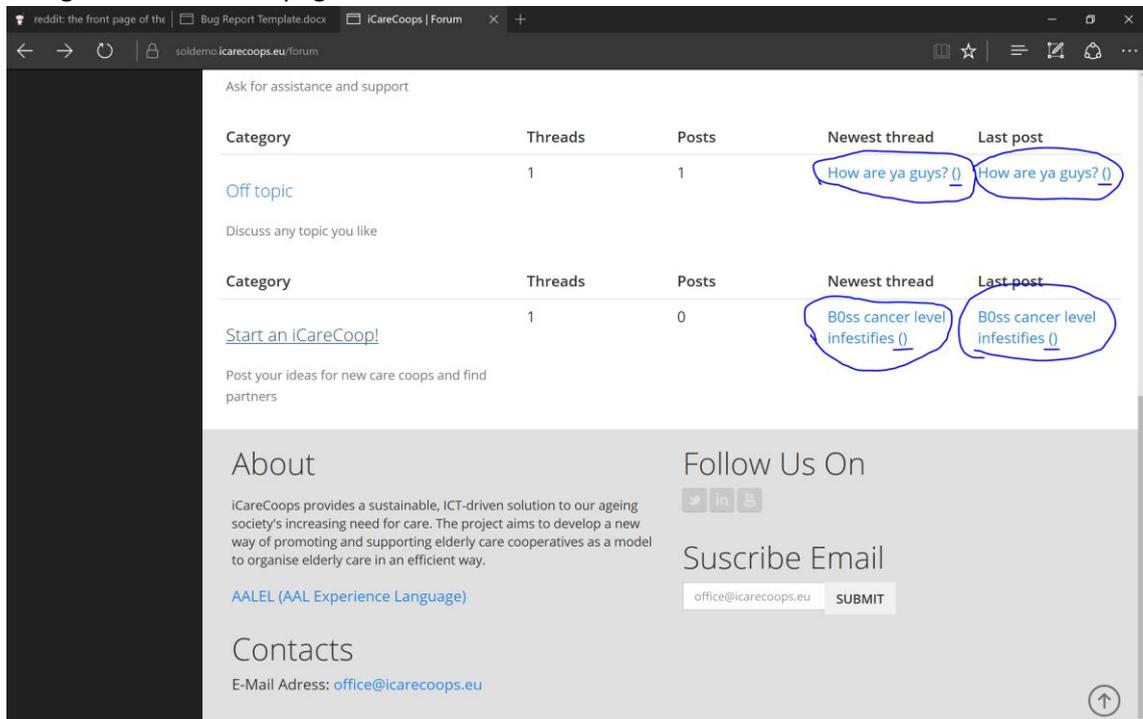
2.

Bug title

Not everything gets translated to German

Submitter

Xxx

Date

16/11/2016

Operating   system   and   Browser

Windows 10 Pro 14393.447 on Microsoft Edge 38.14393.0.0

Bug   Description

There is a certain batch of text which is not translated to German on the homepage.

Severity

Minor

Steps to reproduce

1. Set language to German
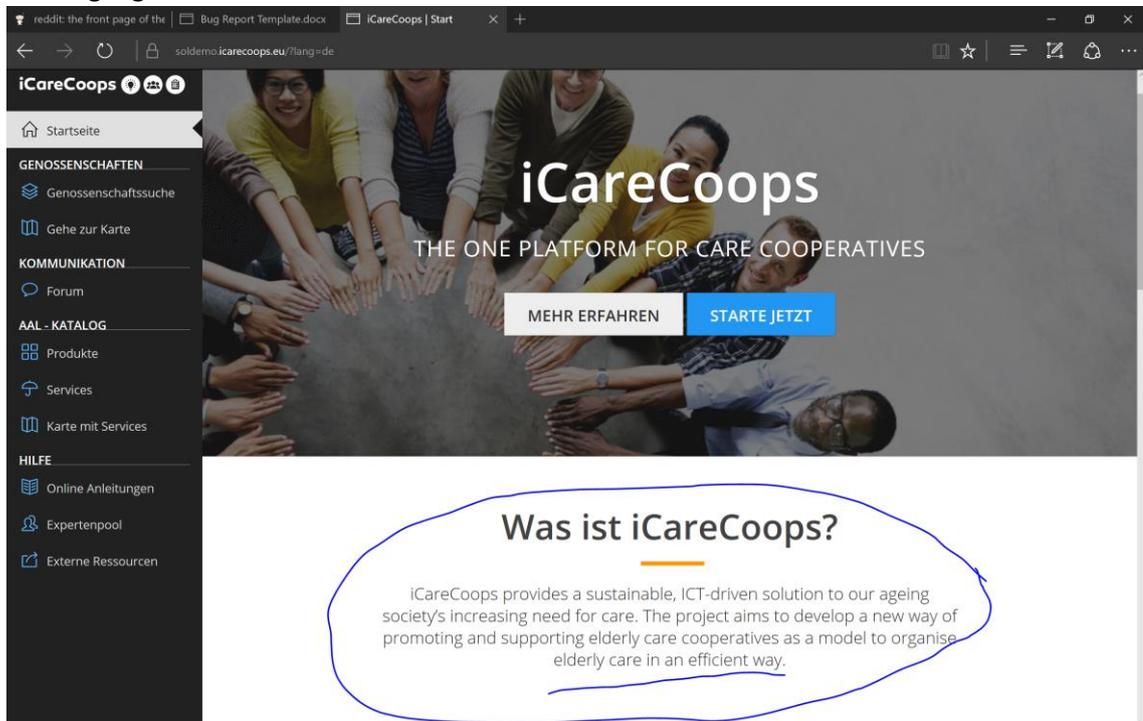
2.

Bug title

Certain elements are in German even on English language settings

Submitter

Date

16/11/2016

Operating system and Browser

Windows 10 Pro 14393.447 on Microsoft Edge 38.14393.0.0

Bug Description

Certain elements on the Find Cooperative page are in German.

Severity

Minor

Steps to reproduce

1. Navigate to the Find Cooperative page

2.

iCareCoops
initiate . interact . integrate
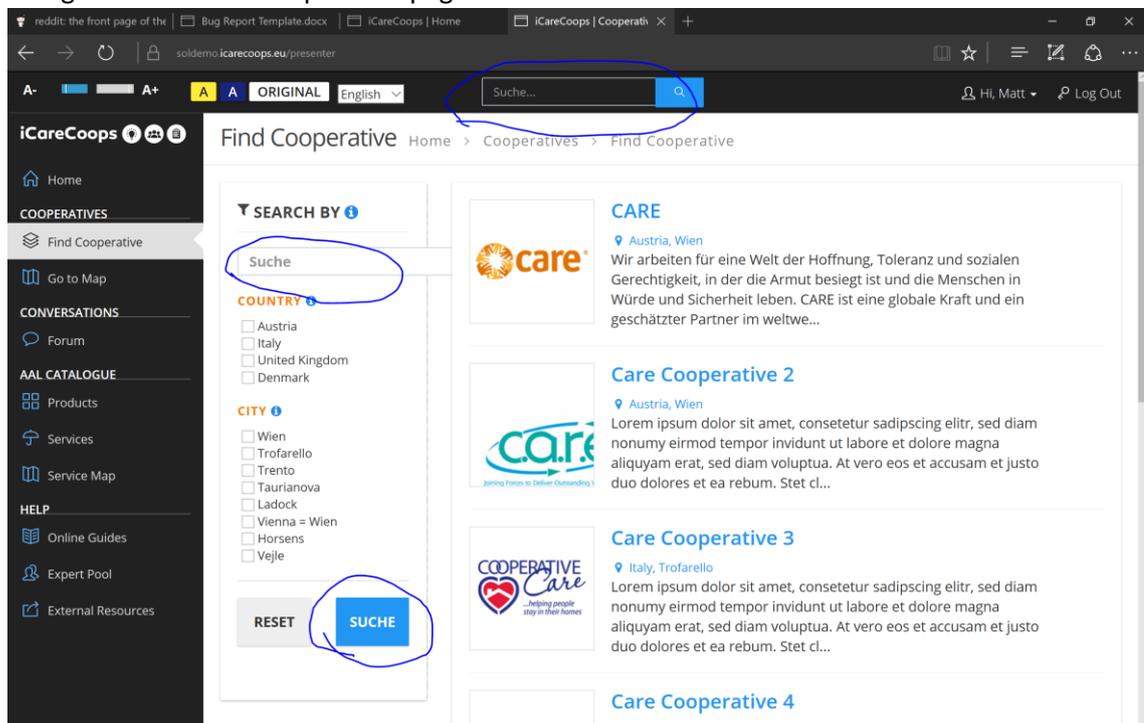
Bug title

Unresponsiveness in the webpage

Submitter

Xxx

Date

16/11/2016

Operating   system   and   Browser

Windows 10 Pro 14393.447 (on a "Surface 4 Pro") on Microsoft Edge 38.14393.0.0

Bug   Description

When text size is set to maximum the page will look terrible.

Severity

Minor

Steps to reproduce

1. Navigate to the Products page
2. Set the text size to maximum

3.

iCareCoops
initiate . interact . integrate
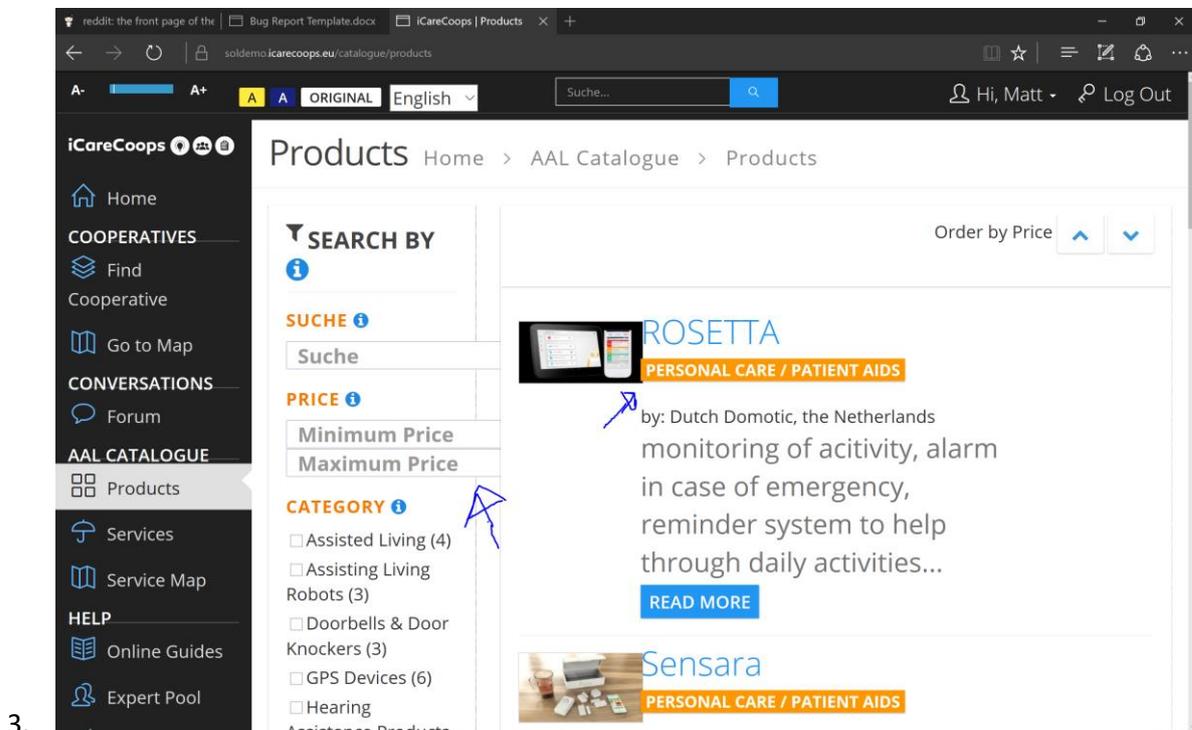
Bug title

Unresponsive buttons

Submitter

Xxx

Date

16/11/2016

Operating   system   and   Browser

Windows 10 Pro 14393.447 (on a "Surface 4 Pro") on Microsoft Edge 38.14393.0.0

Bug   Description

The three buttons that a service has look off.

Severity

Minor

Steps to reproduce

1. Navigate to the Services page
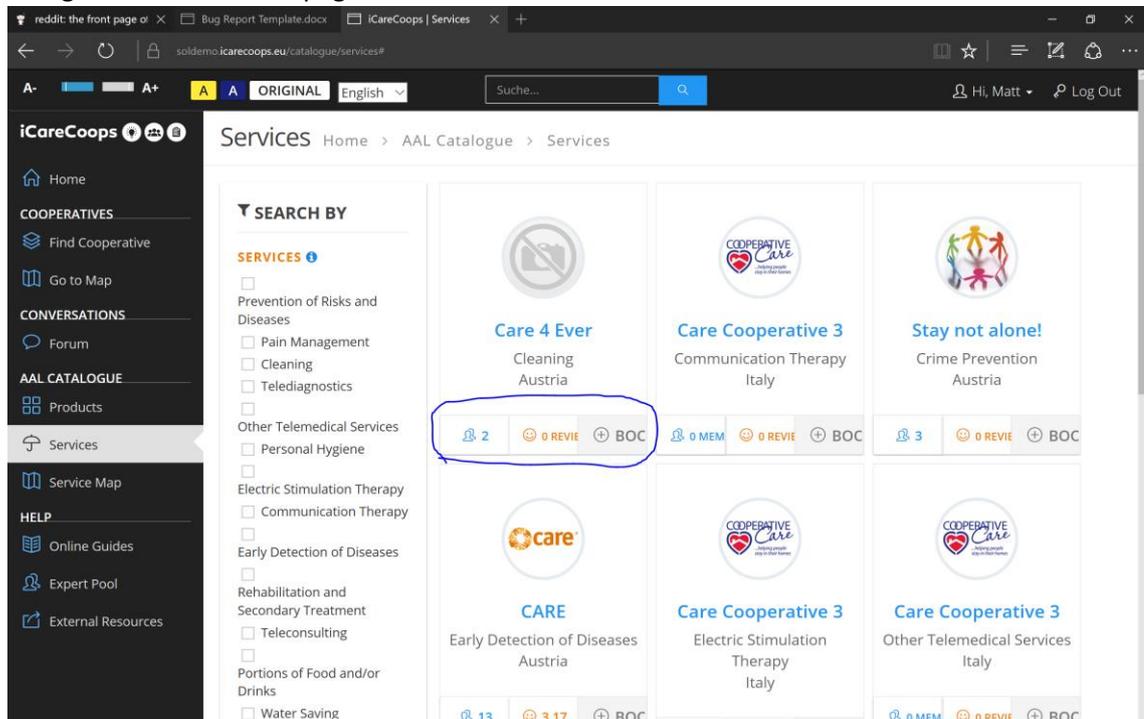
2.

Bug title

Page not working well on vertical view

Submitter

Xxx

Date

16/11/2016

Operating   system   and   Browser

Windows 10 Pro 14393.447 (on a "Surface 4 Pro") on Microsoft Edge 38.14393.0.0

Bug   Description

when tablet is rotated to vertical view the webpage glitches out.

Severity

Minor

Steps to reproduce

1. Open the website on a tablet
2. Rotate tablet to vertical pose (continue on next page)

iCareCoops
initiate . interact . integrate

3.
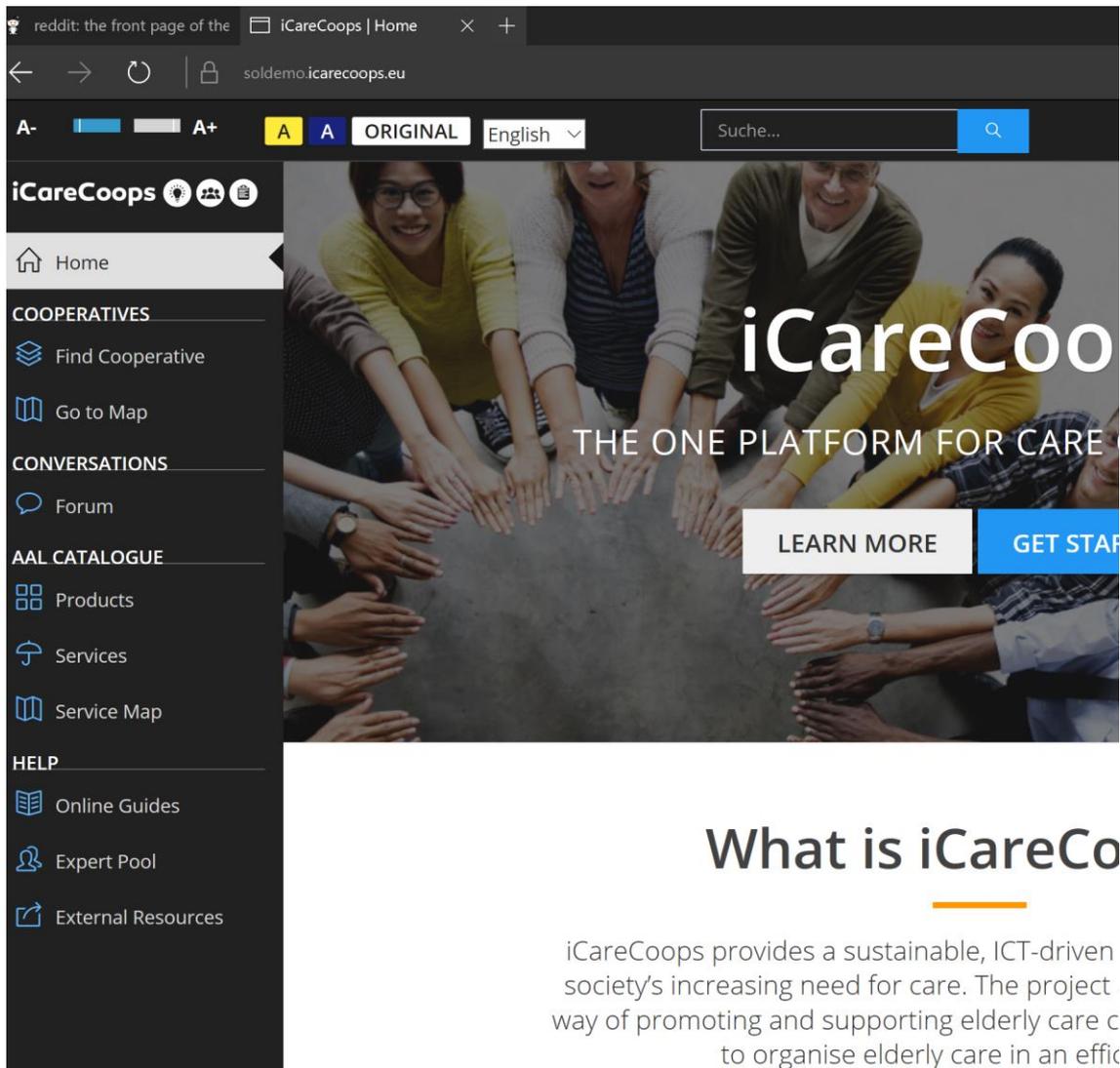
Side note: It also doesn't allow me to scroll further to the right!

Bug Report

iCareCoops UI testing

ID

007

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Pro (10.0.14393 Build 14393) testing with:

- Microsoft Edge 38.14393.0.0
- Internet Explorer 11 (11.447.149393.0)
- Google Chrome Version 54.0.2840.99 m (64-bit)
- Firefox 49.0.2
- Tor Version 6.0.6 (2016-11-15)

Kali GNU/Linux Rolling 64-bit Version 3.21.90 testing with:

- Firefox ESR 45.3.0

Bug Description

Error when login in with user ID: synyo

Severity

Critical

Steps to Reproduce

8. Identify which OS/browser type and version generates this error.
9. Error found with Win10/Edge, Win10/IE11, Win10/Chrome, Win10/Firefox
10. Error is NOT generated using Kali/Firefox, Win10/Tor

Actual Behavior

FatalErrorException in Carbon.php line 962:Carbon\Carbon::setLocale(): Failed opening required '/var/www/clients/client1/web8/web/vendor/nesbot/carbon/src/Carbon/Lang/.php' (include_path='.:/usr/share/pear:/usr/share/php')

Expected Behavior

Should be able to login to the system as user synyo.

Bug Report

iCareCoops UI testing

ID

007

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Mac OS X 10.11.6 El Capitan testing with:

Safari 10.0.1 (11602.2.14.0.7)

Bug Description

Search field on front page does not adapt to English – has text value "Suche"

Severity

Tiny

Steps to Reproduce

      1. Change text value to "Search" for English text layer

Actual Behavior

Text value in search field does not adapt to English text layer

Expected Behavior

Should change to "Search"

Bug Report

iCareCoops UI testing

ID

007

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Mac OS X 10.11.6 El Capitan testing with:

Safari 10.0.1 (11602.2.14.0.7)

Bug Description

Birthday field in registration process shows text value with date format: dd/mm/yyyy and does not check if date is in the future.

Severity

Minor

Steps to Reproduce

1. Either change text value in birthday field to mm/dd/yyyy.
2. Or change the date format accepted to dd/mm/yyyy format.
3. Implement better validating of entered date (future date should not be allowed).

Actual Behavior

Prompts the user to enter a date format mm/dd/yyyy.

Expected Behavior

User should be able to enter date format dd/mm/yyyy as the birthday field text value suggests.

Bug Report

iCareCoops UI testing

ID

007

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Mac OS X 10.11.6 El Capitan testing with:

Safari 10.0.1 (11602.2.14.0.7)

Bug Description

City selector in registration process has "Select country" as default selected value.

Severity

Tiny

Steps to Reproduce

1. Change the default selected value to "Select city".

Actual Behavior

Default selected value is "Select country".

Expected Behavior

Should be "Select city".

Bug Report

iCareCoops UI testing

ID

007

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Mac OS X 10.11.6 El Capitan testing with:

Safari 10.0.1 (11602.2.14.0.7)

Bug Description

Page crashes when registration process ends.

Severity

Critical

Steps to Reproduce

1. Investigate why this error occurs.

Actual Behavior

Displays error message: ChainNoResultException in ChainProvider.php line 63: No provider could provide the address

Expected Behavior

Should log the user in after registering for an account.

Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

If you change the websites theme to yellow, by clicking on the yellow "A" button in the top menu, the main page's logo (which is: "iCareCoops - The one platform for care cooperatives") is hard to distinguish due to bad color compatibility.

Severity

Trivial

Steps to Reproduce

1.   Change the websites theme to yellow, by clicking on the yellow "A" button in the top

menu.

Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

The search bar in the top menu appears in wrong position if you change the width of the window to 991 pixels or less.

Severity

Trivial

Steps to Reproduce

Change the window's width to 992 pixels or less.

Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

Search bar is always in German ("Suche…"), even if you change to English.

Severity

Trivial

Steps to Reproduce

1. Change the language of the website to English.

iCareCoops
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Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

If you change the websites theme to yellow, by clicking on the yellow "A" button in the top menu, the main page's logo (which is: "iCareCoops - The one platform for care cooperatives") is hard to distinguish due to bad color compatibility.

Severity

Trivial

Steps to Reproduce

1.   Change the websites theme to yellow, by clicking on the yellow "A" button in the top

menu.

Actual Behavior:

 "Search…" instead of "Suche…" when in English.

Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

During the process of registration, you can, while entering your year of birth, insert up to 6 digits (for example 06/06/198823)

Severity

Trivial

Steps to Reproduce

1. Go to registration menu
2. Input your day of birth month and 6 other digits.

Actual Behavior:

only 4 digits to enter expected, not 6.

Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

During the process of registration, while input "Cooperative information" there is a "-Select Country-'' caption next to "City" input field.

Severity

Trivial

Steps to Reproduce

1. Go to registration menu and reach the stage of entering "Cooperative information"
2. Look at the "City" input field.

Actual Behavior:

Expected caption: "-Select City".

iCareCoops
initiate . interact . integrate

Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

During the process of registration, while input "Cooperative information", you cannot select any city, because the appearing list is empty (strange, but works only if Denmark is selected as a "Country").

Severity

Trivial

Steps to Reproduce

1. Go to registration menu and reach the stage of entering "Cooperative information"
2. Try to select a City

Actual Behavior:

Expected some cities in the appearing list.

iCareCoops
initiate . interact . integrate

Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

The "return to the previous page button" ("<<") in section "Services" and "Products" has a different appearance, compared to "go to next page" button (">>").

SEE "Screenshot for Bug Report 8.jpg".

Severity

Trivial

Steps to Reproduce

1. Got to "Services" or "Products" session
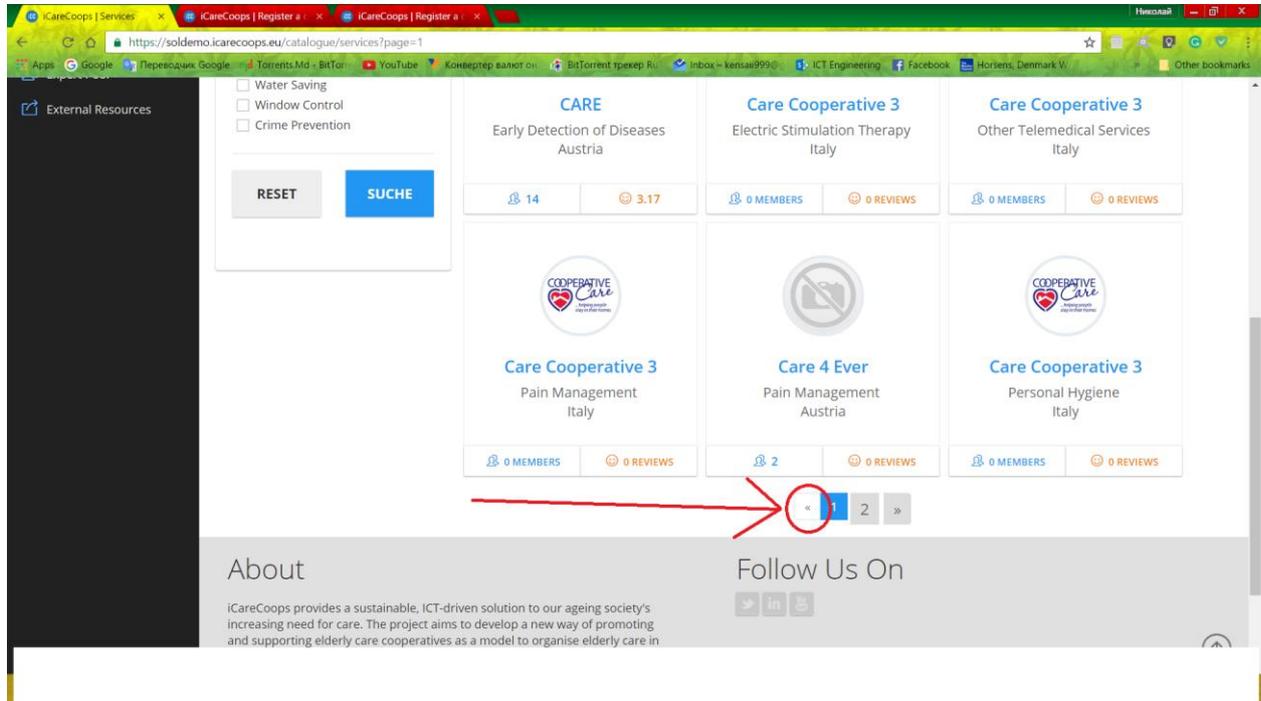
Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

The   calendar   button   is   not   working   at   all.
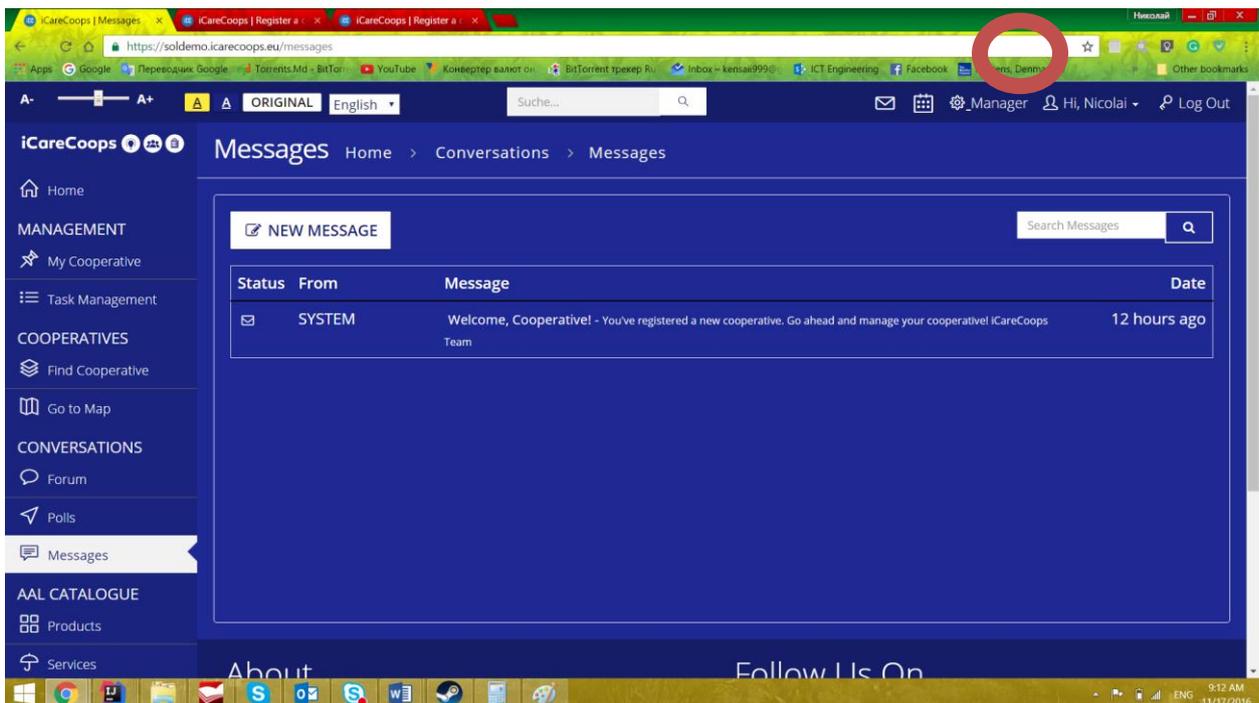
SEE "Screenshot for Bug Report 8.jpg".

Severity

Trivial

Steps to Reproduce

1.Log in

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Bug Report

Bug Title - one liner

ID

Xxx 008

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 8.1 operating system.

Google Chrome Version 54.0.2840.99 m.

Bug Description

The "cancel" button is not working at all.
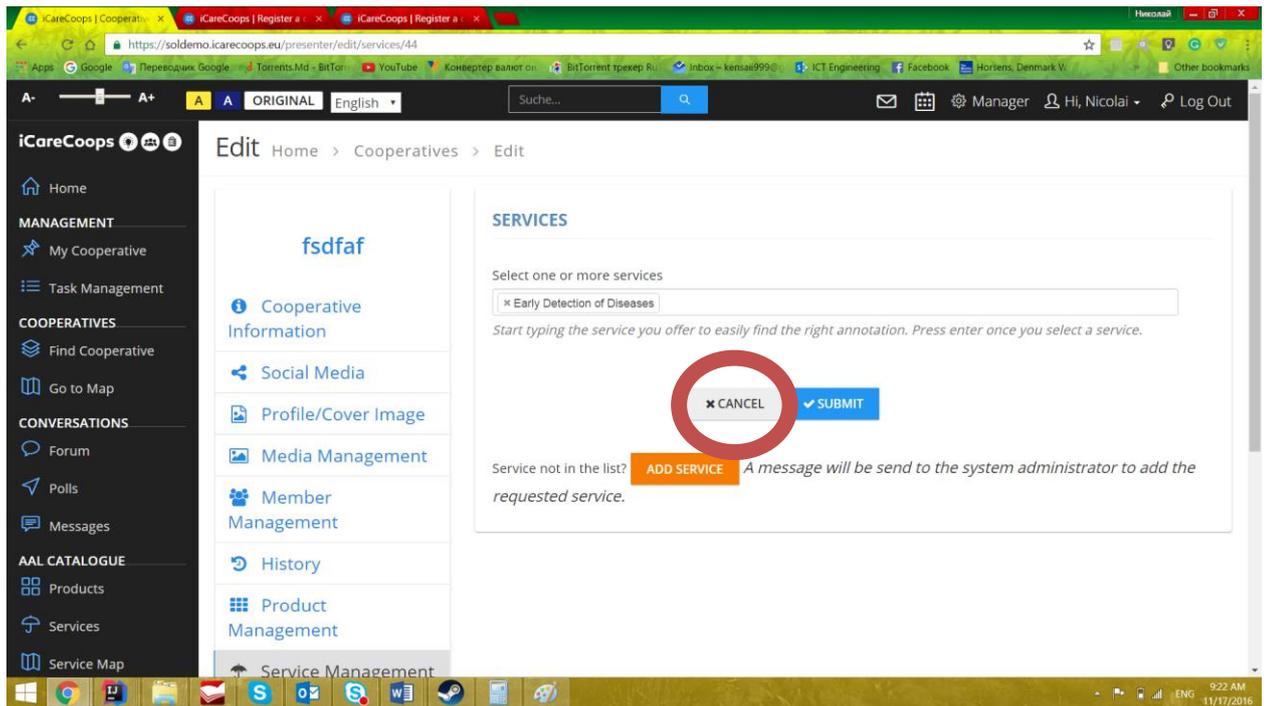
Severity

Trivial

Steps to Reproduce

1.Log in

2. Go to "Service Management" section in your account "Manager" section.

iCareCoops
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Bug Report

Bug Title - one liner

ID

009

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 / Chrome 54.0.2840.87

Bug Description

When creating an account, the e-mail address is misspelled as "E-Mail Address".

Severity

Trivial

Steps to Reproduce

1. Go to the account creation page.
2. Check the E-Mail Address.

Actual Behavior

Misspelled word.

Expected Behavior

Good grammar.

iCareCoops
initiate . interact . integrate

Bug Report

Bug Title - one liner

ID

009

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 / Chrome 54.0.2840.87

Bug Description

There is no birthday check, so the user can input any birthday even if it's not real.

Severity

Minor

Steps to Reproduce

1.   Go to the account creation page.
2.   Input any birthday (even Jesus' birthday) and the system won't find any problem!

Actual Behavior

Any birthday date can be written.

Expected Behavior

If the birthday date is wrong the system should warn the user and not let the account creation proceed.

iCareCoops
initiate . interact . integrate

Bug Report

Bug Title - one liner

ID

009

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 / Chrome 54.0.2840.87

Bug Description

There is no image for the current users' location on the map.

Severity

Minor

Steps to Reproduce

1.   Go to the map: https://soldemo.icarecoops.eu/map-cooperatives
2. Check your current location, which doesn't have a picture.

Actual Behavior

The current position is not properly shown with an image.

Expected Behavior

The location of the user should be displayed with the proper image.

Bug Report

Bug Title - one liner

ID

009

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 / Chrome 54.0.2840.87

Bug Description

Even though the language is selected on English, the search word in the search bar at the top is in German ("Suche").

Severity

Trivial

Steps to Reproduce

1. Go on any page on the site which has a search bar at the top.
2. Before writing something in it, the word is "Suche" instead of "Search".

Actual Behavior

The word is in a different language which may cause problems.

Expected Behavior

The word should be "Search".

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Bug Report

Bug Title - one liner

ID

009

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 / Chrome 54.0.2840.87

Bug Description

The color of the text in the search bar, when navigating on the blue background and white text style, is light grey making it very difficult to read what you wrote.

Severity

Minor

Steps to Reproduce

1. Go to any page with a search bar on the site.
2. Select the blue background and white text style.
3. Write anything in the search bar.
4. Try to read it.

Actual Behavior

The text's color is making it too difficult to read.

Expected Behavior

The color of the text should be darker.

iCareCoops
initiate . interact . integrate

Bug Report

Bug Title - one liner

ID

009

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 / Chrome 54.0.2840.87

Bug Description

The search button is in German instead of English, which is the language selected.

Severity

Minor.

Steps to Reproduce

1.   Go to the website.
2.   Change the language to English.
3.   Go to "Find cooperative" or "Services".
4.   Note that the Search button is in German ("Suche").

Actual Behavior

German word.

Expected Behavior

English word.

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Bug Report

Not Opening

ID

010

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Pro, Google Chrome 54.0.2840.99 m

Bug Description

Can't enter the web site from the given browser.

Severity

Major

Steps to Reproduce

> **11.** Open Google Chrome
> **12.** Open a new tab
> **13.** Enter soldemo.icarecoops.eu
> **14.** A new small window pops up
> **15.** Enter user: synyo

16. Enter password: demoforsynyo16

Actual Behavior

1. Error occurs FatalErrorException inCarbon.php line 962:
Carbon\Carbon::setLocale(): Failed opening required '/var/www/clients/client1/web8/web/vendor/nesbot/carbon/src/Carbon/Lang/.php' (include_path='.:/usr/share/pear:/usr/share/php')

Expected Behavior

To be able to enter the web site

Bug Report

ID

010

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Pro, Microsoft Edge 38.14393.0.0

Bug Description

Problems when turn the screen colour to yellow or blue

Severity

Minor

Steps to Reproduce

1. Open Microsoft Edge
2. Enter soldemo.icarecoops.eu
3. A new small window pops up
4. Enter user: synyo
5. Enter password: demoforsynyo16

iCareCoops
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6. Click on the blue or yellow colour button

Actual Behavior

1. Borders appear over every element on the website

2. Some of the images lose sharpness due to the wrong decision over the background colour

Expected Behavior

The only difference to be the background colour on the website

iCareCoops
initiate . interact . integrate

Bug Report

ID

010

Submitter

Xxx

Date

16/11/2016

Operating System and Browser

Windows 10 Pro, Microsoft Edge 38.14393.0.0

Bug Description

Can't use some buttons when in Responsive Mode

Severity

Major

Steps to Reproduce

1. Open Microsoft Edge
2. Enter soldemo.icarecoops.eu
3. A new small window pops up
4. Enter user: synyo
5. Enter password: demoforsynyo16

6. Restore the window down

Actual Behavior

1. The left menu bar disappears as well as the pictures on the screen move to the left part of the window

Expected Behavior

To see the menu like a new box in the left upper corner of the window

iCareCoops
initiate . interact . integrate

Bug report
Random bugs found on your website

Submitter
Xxx

Date
16/11/2016

Operating   System   and   Browser
Windows 10 Home 64-bit 14393.447, Microsoft Edge 38.14393.0.0

Bug   Description
Problems   accessing   the   page   on   Chrome   Version   54.0.2840.71   m
Trouble   with   posting   replies
Not   everything   is   being   translated   in   German
Changing   the   color   of   the   pages   to   blue   and   yellow,   respectively   hurts   the   design
Lack   of   responsiveness
Language doesn't change back to English everywhere (remains German on some parts)

Severity
Minor

Steps to Reproduce

1. Loading pages mainly, adjusting text size, zooming in

iCareCoops
initiate . interact . integrate
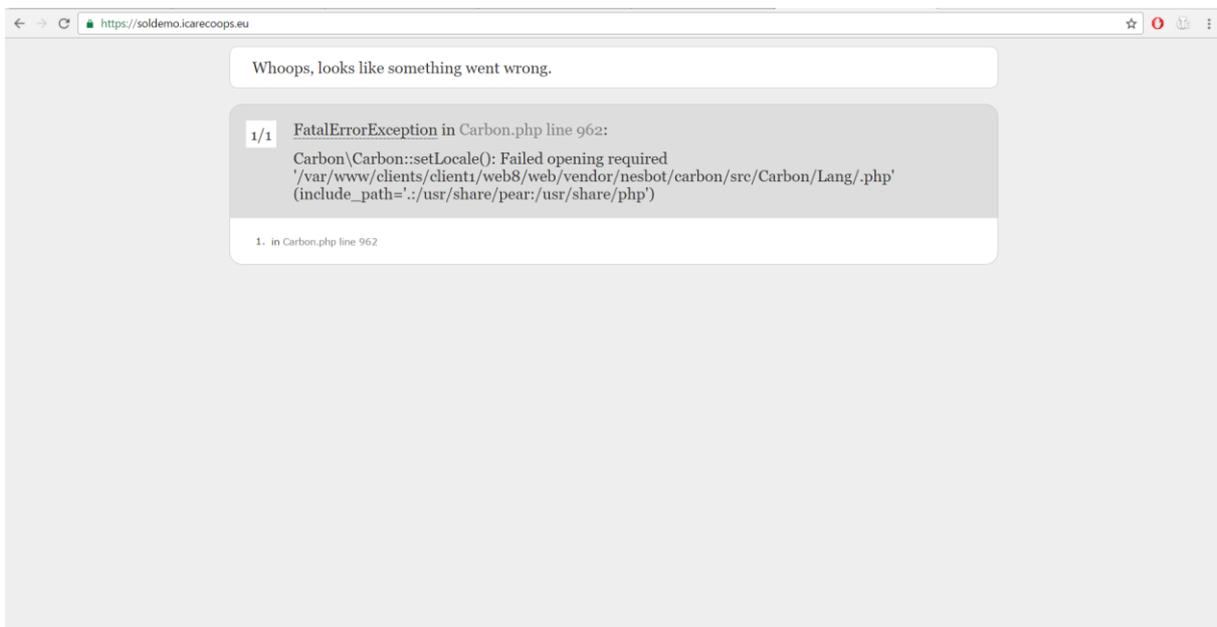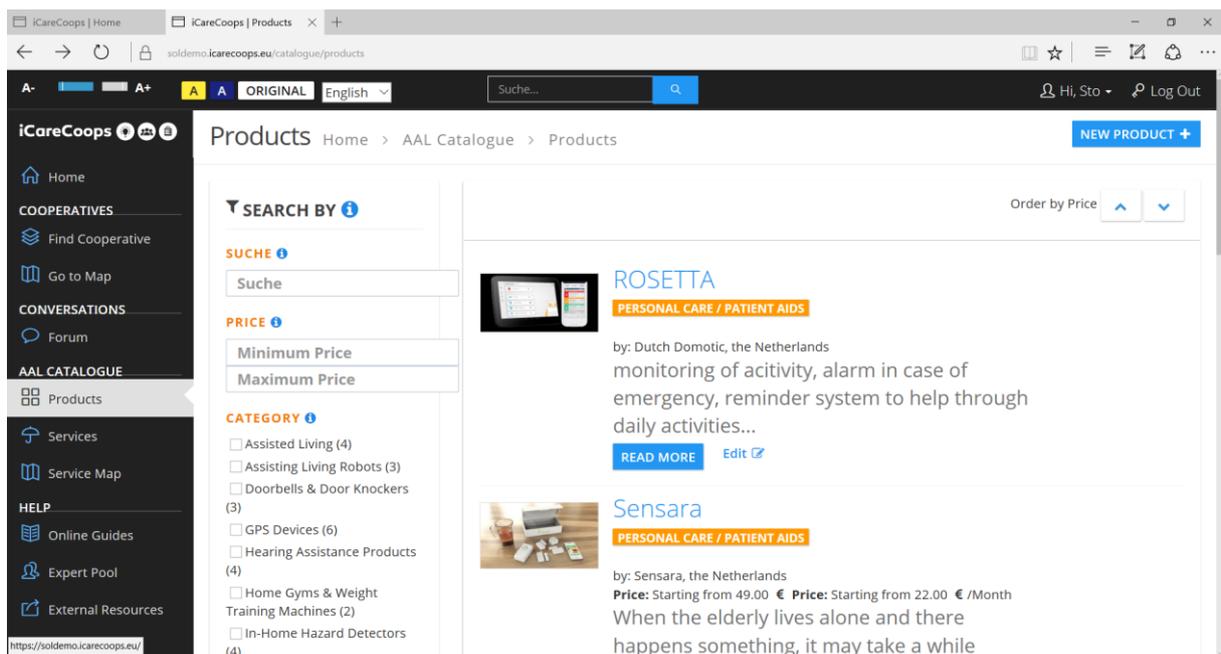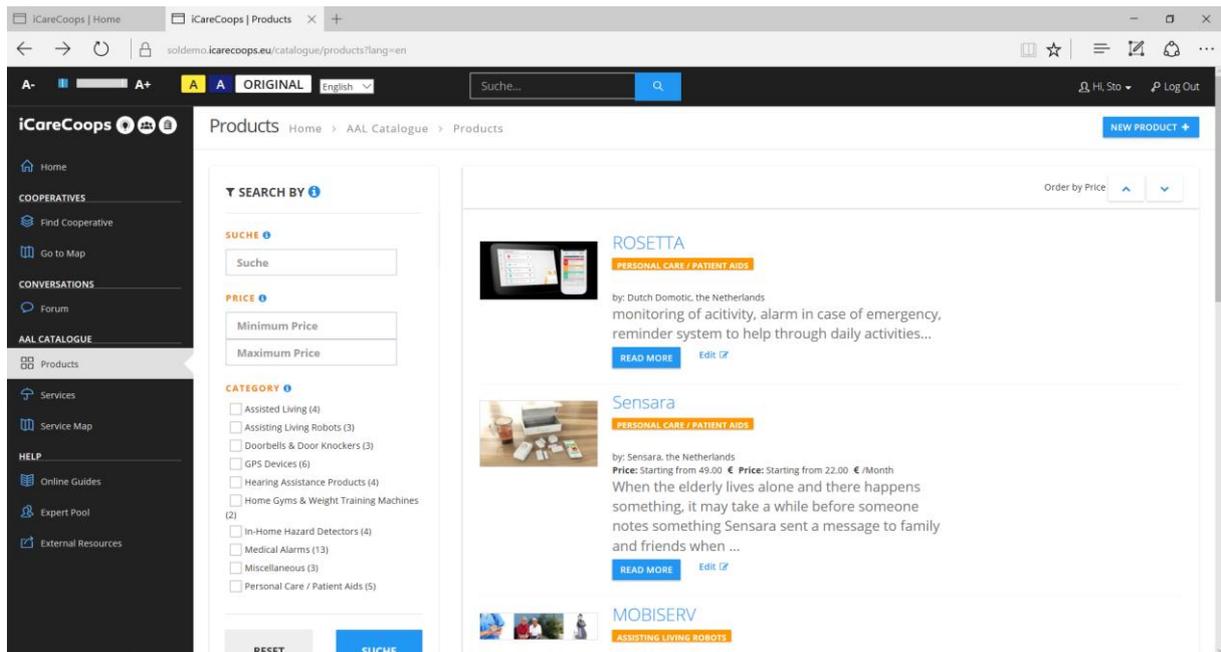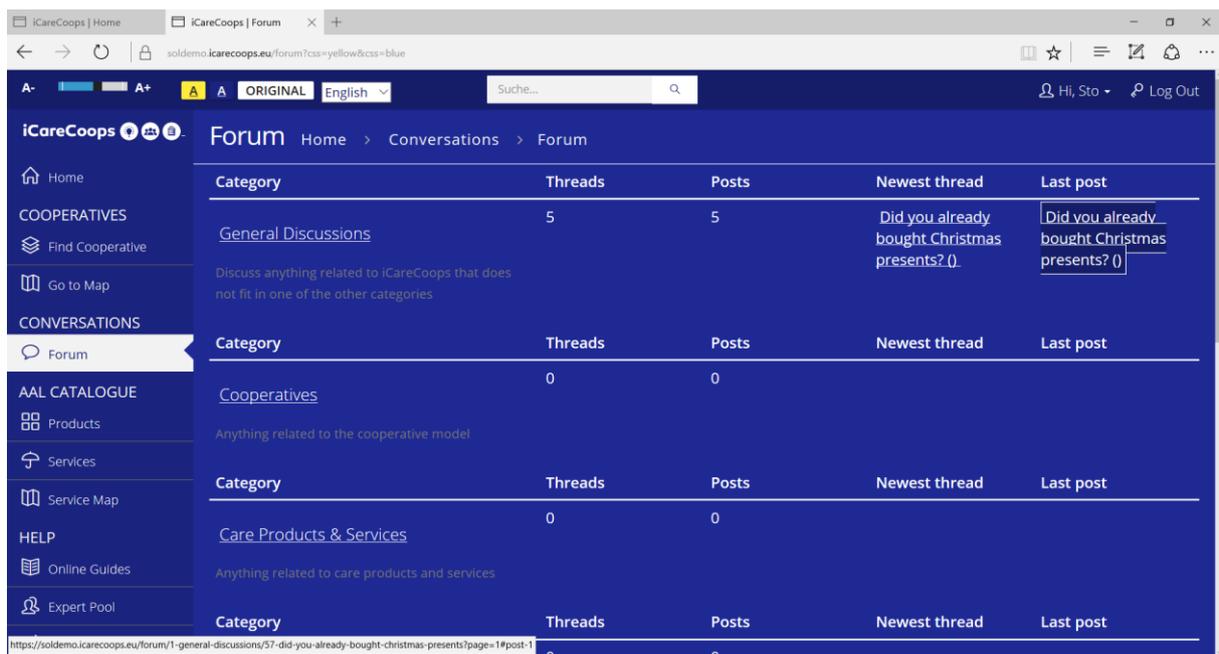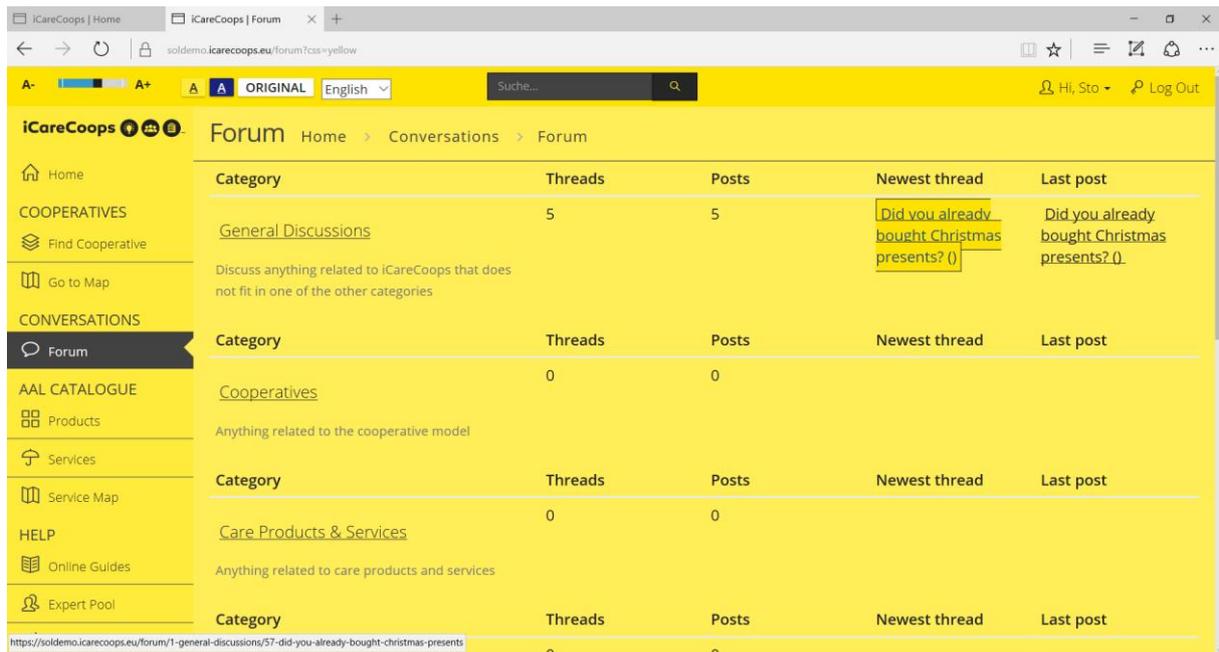
Bug Report
Navigation bar

ID
Sara López 253900

Submitter
Sara López

Date
18/11/2016

Operating System and Browser
Windows 10 Home 14393.477, Google Chrome Version 54.0.2840.9

Bug Description
The menu (navigation bar) extends over all the page even when there are no categories left, taking space from the rest of the page.

Severity
Major

Steps to Reproduce
1. Change the navigation bar to vertical.
2. Try to create a navigation bar with 5 main categories (Home, Cooperatives, Conversations, All catalogue and Help) and a submenu with subcategories for each of them. So that when you click on one of the main categories a tab with subcategories appears underneath.

Actual Behavior

Expected Behavior
When making the navigation bar vertical a great amount of space can be used for other purposes. Thus, it enables the users to have a better experience when searching in the webpage. At the same time, it would be important to make sure that the navigation bar never disappears when scrolling down, that way it would be easier to have access to any category at any given time.

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Bug Report
Search button

Bug Description
The text displayed inside the Search button is not in English but in German. Besides, "Search" has not been translated from German in all the website, except for when the language is set to German, in this case, instead of being in German its English.

Severity
Minor

Steps to Reproduce
1. Since the entire page should be in the same language to provide the users an easier search, the text of the Search top bar should be *Search* instead of Suche when the language chosen is English, and *Suche* when it is German.
2. Try to read the text on the class input-group.
3. Find more Search text to change in *Find Cooperative* and *Products*.

Actual Behavior
The Search button information is in german.
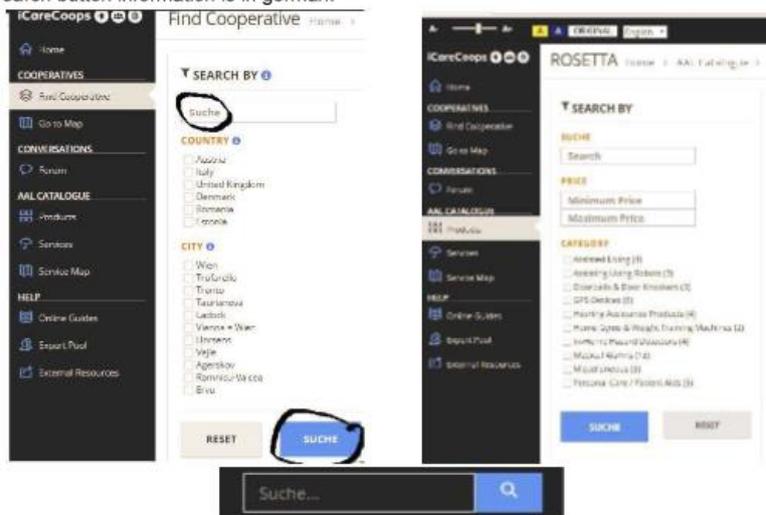
Expected Behavior

Displaying the Search text in the same language to give harmony to the webpage.

Bug Report

Blockquote text in the Registration tab.

Bug Description

In the home page, the registration text displayed at the beginning of the page is not clear and the Cooperative registration tag has a missing space.

Severity

Trivial

Steps to Reproduce

1. Try to read the text on the **blockquote** at the beginning of the registration page.
2. Change the text in the blockquote for:
   Fill in this form stating whether you are a "Care Giver" or "Care Receiver". Besides, if you want to be a manager on your own change to the tag "Cooperative registration". Log in here *if you are already an iCare user.*
3. The Cooperative registration tab has a missing space. Change *Cooperativeregistration* to **Cooperative registration**.

Actual Behavior

Blockquote text:

Missing space:

Expected Behavior

Stating the information about registration in a clearer way will allow the users to know what they are signing up for. In the same way, leaving a space between Cooperative and registration will provide a better look to the page and understanding to the users.

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Bug Report
Registration page

Bug Description
When clicking on the cooperative registration tab it is not possible to go back to the Registration tab.

Severity
Major

Steps to Reproduce
1. See the h3 *cooperative registration*.
2. Enable the users to go back to the registration page by clicking on the *Registration* tab.

Actual Behavior
The page does not allow the user to go back to where he previouly was.

Expected Behavior
Once in the page *Cooperative registration*, if deciding to go back to the previous page, the users should be able to perform that action by clicking on *Registration*.

Bug Report
Blue color

Bug Description
When changing the font color to black and the background-color to dark blue, some parts of the text are difficult to read.

Severity
Major.

Steps to Reproduce
1. Change the font styling to dark blue and the background color to light blue.
2. Try to read the text on the text-muted in the *Forum* page, as well as the *Cooperative registration* logo in the *Registration* page.

Actual Behavior
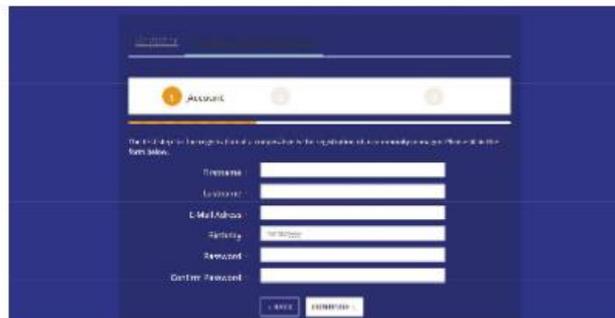
Expected Behavior
Flashy colors tend to ruin the design, making everything difficult to read. By changing to light colors everything will be simple and easy to understand.

Bug Report
Follow us buttons don't work

Bug Description
In the *Home* page footer, the follow us buttons do not direct the user anywhere, which means that there is no link attached to them. Besides, in the *service* page, for each of the services available the contact buttons do not work either.

Severity
Major.

Steps to Reproduce
1. Attach a link to each of the three buttons (Twitter, YouTube, Skype, Facebook...)
2. Direct each logo to the correspondent page.

Actual Behavior

Expected Behavior
Each logo should direct the user to a specific link so the user can follow iCare in the different types of social media.

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Bug Report
Subscribe email

Bug Description

In the *Home* page footer, the h2 "*Subscribe email*" has been misspelled. Besides, inside of the textbox, the text displayed shouldn't be the email of the enterprise, since users are supposed to enter their own email. Apart from that, when clicking the submit button nothing happens, so it is not clear if the process has been done successfully.

Severity

Major.

Steps to Reproduce

1. Change "Suscribe email" to: *Subscribe email*.
2. Change the text in the textbox to: *"email"*.
3. When the *Submit button* is pressed, display a message on the screen informing the users that their email has been submitted correctly.

Actual Behavior

Suscribe Email

office@icarecoops.eu   SUBMIT
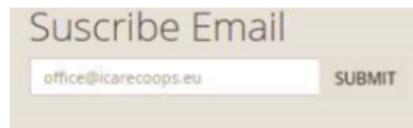
Expected Behavior

The text in the textbox should indicate the users to type their own email, for that reason the email of iCare should not be displayed there.

When clicking on the submit button the users need to be sure that their request has been submitted successfully, this can be achieved with the message in the screen.

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Bug Report
Find Cooperative

Bug Description
When searching for a cooperative in the *Find cooperative* page, after selecting the country and city nothing appears on the screen when the button Search is pressed. However, they do appear before any country is selected.

Severity
Major

Steps to Reproduce
1. Try to display the cooperatives both before and after the country and city are selected and the button *Search* is pressed.

Actual Behavior
Nothing appears when a country is selected.
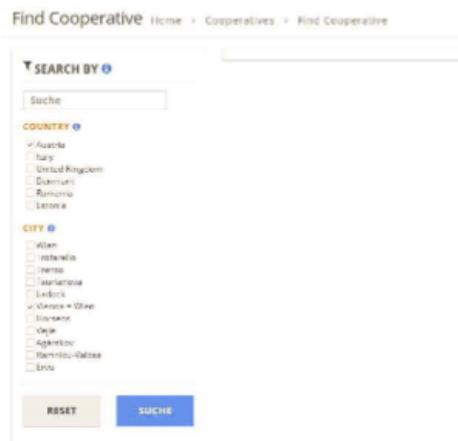
Expected Behavior
Show cooperatives for the selected countries when necessary.

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Bug Report
Buttons do not work

Bug Description

When clicking on the map's options the *contact* and *share* buttons do not redirect the user to the link they should.

Severity

Major

Steps to Reproduce

1. Try to link the contact and the share buttons to each specific URL.
2. The links should be opened in a different window.

Actual Behavior

Nothing happens when a contact/share are pressed.

Expected Behavior

Redirect the users to a page where they can contact with the office selected if the *Contact* button is pressed. Otherwise, if the *Share* button is pressed it should allow the user to share the office information by twitter in this case. For this reason, the twitter webpage should be opened in a different window.

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Bug Report
Buttons do not work

Bug Description

When clicking on the map's options the *contact* and *share* buttons do not redirect the user to the link they should.

Severity

Major

Steps to Reproduce

1. Try to link the contact and the share buttons to each specific URL.
2. The links should be opened in a different window.

Actual Behavior

Nothing happens when a contact/share are pressed.

Expected Behavior

Redirect the users to a page where they can contact with the office selected if the *Contact* button is pressed. Otherwise, if the *Share* button is pressed it should allow the user to share the office information by twitter in this case. For this reason, the twitter webpage should be opened in a different window.

Bug Report
Map

Bug Description
When zooming out the maps multiplies several times. The same problem occurs both in the service map and the cooperative map.

Severity
Major

Steps to Reproduce
1. Make only one single map so that when you zoom out the map becomes smaller but it does not multiply.

Actual Behavior

Expected behavior.
One single map on the screen.

Bug Report

Search bar and text overlap

Bug Description

When the zoom is 100% (or above) or the page size increases the **search bar** overlaps. In the *profile information* page, the **name of the user** overlaps as well.

Severity

Minor

Steps to Reproduce

1. Make the page responsive so that when it is above large the search bar takes only 2 columns.
2. It should also be important to make it responsive when it is medium or small.
3. The same problem happens on the *products* category; and similar measures should be taken.
4. In the *profile information* (services section) the name of the user should take only 2 columns, in order to achieve this, make the service page responsive.

Actual Behavior
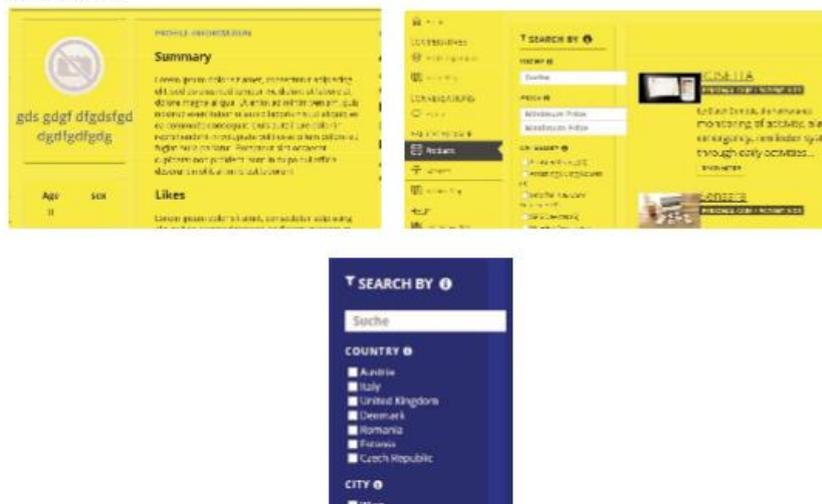
Expected behavior.

The bars and the text occupy two columns and they do not overlap.

Bug Report
Forums

Bug Description
Unable to publish threads and replies.

Severity
Major

Steps to Reproduce
1. Make it possible for users to post their replies and threads when necessary by fixing the code.

Actual Behavior
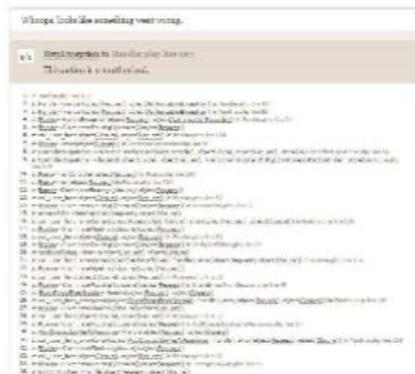
Expected behavior
Ability to post replies to threads and posts.

Bug Report
Color change error

Bug Description
When the color changes and you hover over a link the text overlaps.

Severity
Minor

Steps to Reproduce
1. When hovering over a link try to change the box color to be the same as the background color and delete the border color.
2. Increase the line height to create more space between the lines.

Actual Behavior

Expected behavior
The links do not overlap when you hover on them because they have enough line height separating them.

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Bug Report
Color change error 2

Bug Description
When the color changes and you search for information in the search-top-bar, the results appear correctly, but when hovering over the options, two lines appear surrounding the selected option. The exact same thing happens in the *Online Guides* category when hovering over the h5.
Besides, in the services categories when you hover over an image a small rectangle appears.

Severity
Minor

Steps to Reproduce
1. Try to correct the html behind the link as shown is the picture underneath, since the link takes more space than needed.

Actual Behavior
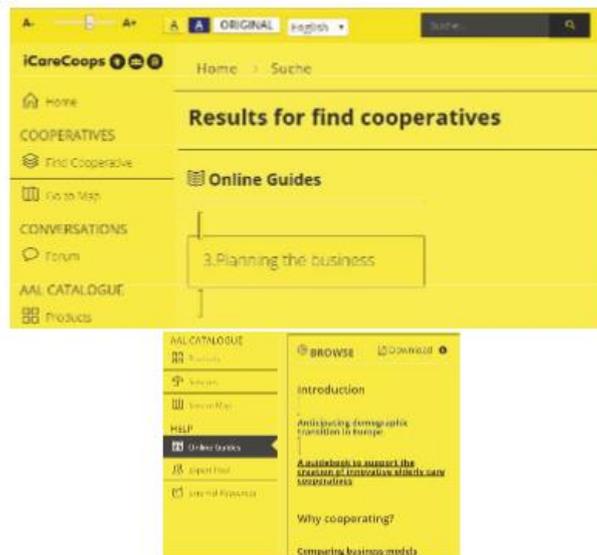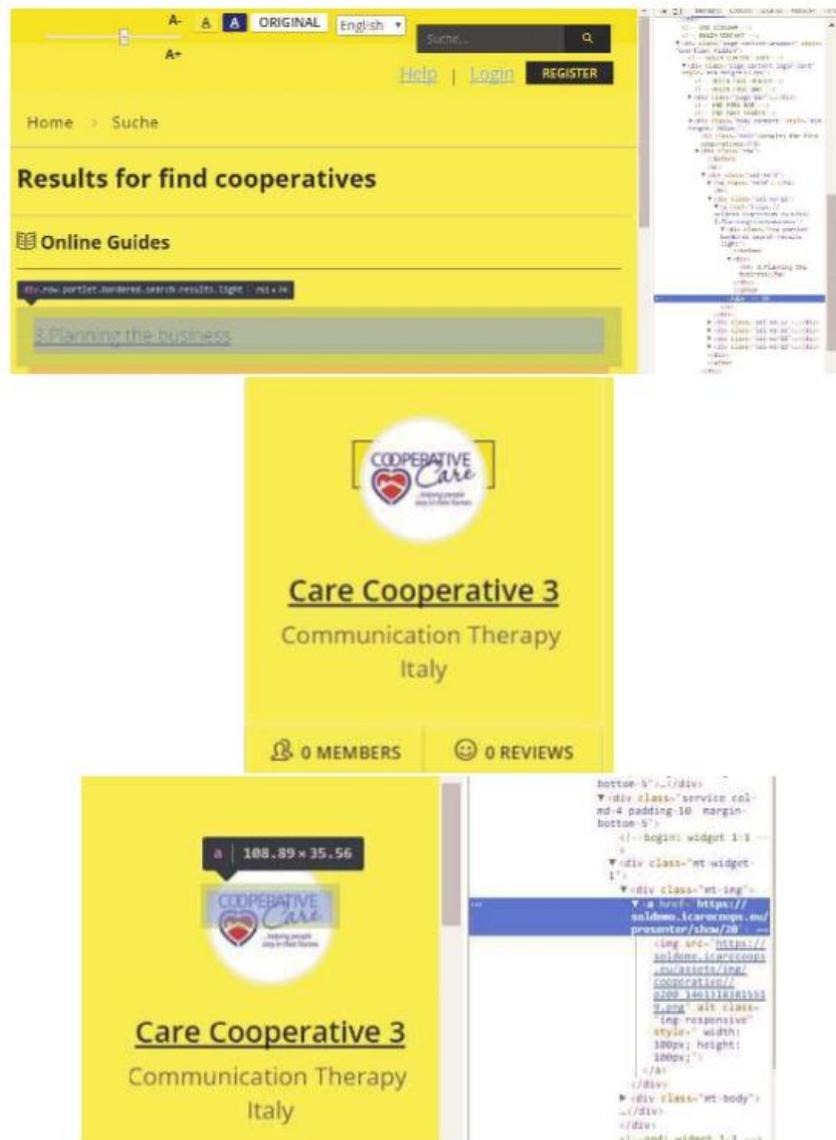
Expected behavior
No lines appear when hovering/clicking on the options.

Bug Report
Buy button does not work

Bug Description

When clicking on the *buy* button in the products category nothing happens.

Severity

Major

Steps to Reproduce

1. Insert a link that directs the user to a page where he can buy the product selected. The new page should ask the user whether he wants to make the payment via PayPal or credit card. In both cases text fields, should be implemented, asking the user for the card number, expiration date and security number.

2. It is important to consider that in order to buy a product the customer should be a user of iCare, so as to improve security.

Actual Behavior
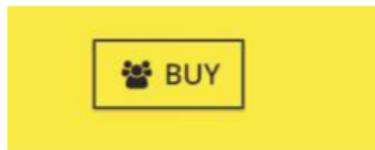
Expected behavior

The page should direct the user to a different webpage where he can buy the product selected.

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Bug Report
Service Map does not work

Bug Description
When clicking in the service map category an error appears on the screen.

Severity
Major

Steps to Reproduce
1.   Try to create a new page or revise the code of the service map.

Actual Behavior

Expected behavior
A service map should appear on the screen when clicking on the category.

Bug Report

Misspelled word in the Service category

Bug Description

When clicking in one of the services available in the *Service* Category, at the button on the page Address is misspelled.

Severity

Minor

Steps to Reproduce

1. Try to read the h4 for example in https://soldemo.icarecoops.eu/presenter/show/10 (The h4 has been misspelled in every service).
2. Change "adress" for "Address".

Actual Behavior

Adress

Lange Gasse 30/4
AT-VIE 1080
AT

Expected behavior

The h4 is: Address.

Bug Report

Change color problem

Bug Description

When clicking on one of the services available in the *Service* Category being the background color yellow, the background color changes to default.

Severity

Major

Steps to Reproduce

1. Try to not change the background color.

Actual Behavior

The page changes its color when clicking on each of the services if the background color is yellow. However, it works when the background color is blue.

Expected Behavior

The color does not change when changing to another page.

Bug Report

Change color problem

Bug Description

When clicking on one of the services available in the *Service* Category being the background color yellow, the background color changes to default.

Severity

Major

Steps to Reproduce

1. Try to not change the background color.

Actual Behavior

The page changes its color when clicking on each of the services if the background color is yellow. However, it works when the background color is blue.

Expected Behavior

The color does not change when changing to another page.

Bug Report
Color changes when the language changes

Bug Description
When switching the language, the color of the page changes automatically.

Severity
Minor

Steps to Reproduce
1. Try to keep the color the user chooses.

Actual Behavior
The color of the page changes when the language is switched to English and vice versa.

Expected Behavior
The color should remain the same no matter what the language is.

Bug Report
Missing image

Bug Description
In the *Online Guides* category, for the chapter *comparing business models* at the button on the page there is a missing image.

Severity
Minor

Steps to Reproduce
1. Try to check the HTML for the image to check if it had a correct source(src), the alternative text for it(alt)…

Actual Behavior

Business Models

Image Reference: (Aliberti, et al., 2014)

Expected Behavior
Image should be displayed instead of text.

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Bug Report
Missing image

Bug Description
In the *Online Guides* category, for the chapter *comparing business models* at the button on the page
there is a missing image.

Severity
Minor

Steps to Reproduce
1. Try to check the HTML for the image to check if it had a correct source(src), the alternative
text for it(alt)…

Actual Behavior

Business Models

Image Reference: (Aliberti, et al., 2014)

Expected Behavior
Image should be displayed instead of text.

Bug Report
Untranslated text

Bug Description
When clicking on the "*Expert Pool*" in the first profile the information/interests and needs are not translated to English.

Severity
Minor

Steps to Reproduce
1. Translate it to English.

Actual Behavior

Expected Behavior
Information displayed in English when the selected language is English, if not, display it in German.

Bug Report
Different options redirect to same link

Bug Description

The four options in the *Home* page (**row margin-bottom-40**) refer to the same link.

Besides, the three links in the "**row stories-cont** " refer to the Home page, the page where they are located. The exact same thing happens when clicking on the h3 or its correspondent image in the "*online guides*" page, the three h3 are linked to the home page when they refer to completely different things.

Severity

Major

Steps to Reproduce

1. For each icon insert a different link depending on its functionality, same for the h3 in the "*online guide*" page.

2. For the "row stories-cont" replace the links with others where the users can get information about *Care receivers*, care givers and cooperative managers. Since the h4 is "*Read more*", the link should a place where the users can read.

Actual Behavior
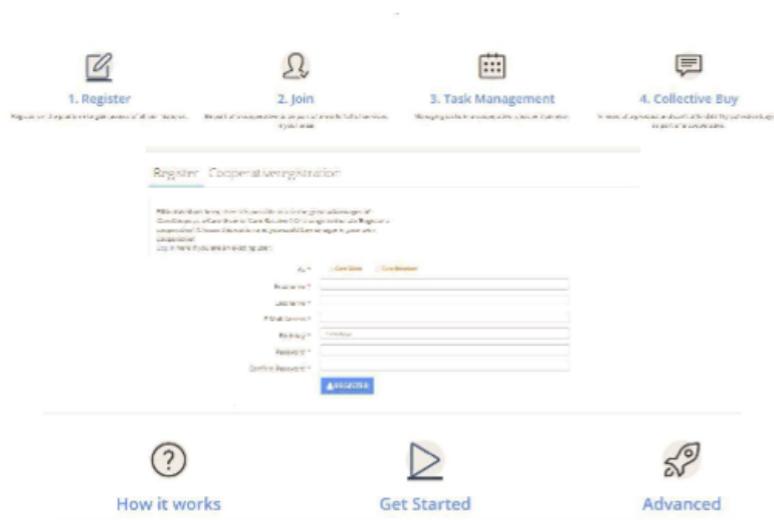
Excepted behavior
Each of the icons redirect the user to different links according to its h3.

Bug Report

Buttons do not work

Bug Description

When clicking on the link of the h2, in the footer of the *home* page, a new page appears on the screen, where we can find the contrast used in the page and the different colors available. However, the buttons "*Action*" and "*cancel*", which are supposed to apply or cancel the different filters to the page don't work.

Severity

Minor

Steps to Reproduce

1. Apply a functionality to each of the Action buttons so that when clicking on it, the background color changes to the one specified.

Actual Behavior

When clicking on the button *Action* or *Cancel* nothing happens.

Contrast

Excepted behavior

The background color changes when an *Action* button is pressed, and goes back the way it was before pressing the *Action* button if the *Cancel* button is pressed.

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Bug Report
Misspelled word

Bug Description

The third category in the navigation bar: "*All Catalogue*" has been misspelled.

Severity

Minor

Steps to Reproduce

1. Change "*aal catalogue*" for All Catalogue.

Actual Behavior

AAL CATALOGUE

Products

Services

Expected Behavior

The category should be named: All catalogue

APPENDIX VIII – BUG REPORT EXPERT TEST II PROTOTYPE III

Bug Report

Bug Title - one liner

ID

11

Submitter

Xxx

Date

08-05-2017

Operating System and Browser

Version 58.0.3029.96 (64-bit)

Bug Description

If language is switched to German and then you proceed to change the color layout of the page, the text goes back to English.

Severity

Tiny

Steps to Reproduce

1. Change language to German (on frontpage)

2. Select new Color
3. Text goes back to English

Actual Behavior

Language switches back to standard (English) instead of the selected.

Expected Behavior

Expected the text to stay in the selected language, not having to change language again after having selected a new color.

Bug Report

Bug Title - one liner

ID

11

iCareCoops
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Submitter

Xxx

Date

08-05-2017

Operating System and Browser

Version 58.0.3029.96 (64-bit)

Bug Description
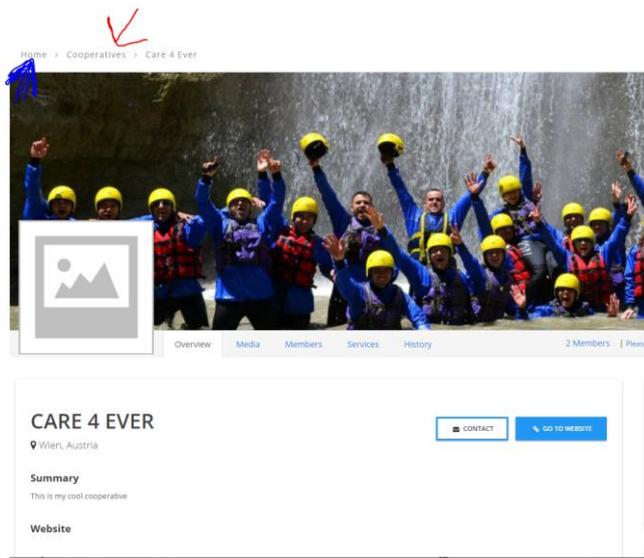
Link to home page works but you are not able to go back to the "cooperatives" page, making the page harder to navigate on.

Severity

minor

Steps   to   Reproduce

1. Go to Services

2. Choose a cooperative

3. click "cooperatives", can't be done

4. clicking home is functional and takes you all the way back

Actual Behavior

The link to "cooperatives" in the navigational bar is not functional only the home.

Expected Behavior

Being able to press the "cooperatives" link and take you back to that page making the webpage more functional.

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Bug Report

Bug Title - one liner

ID

11

Submitter

Xxx

Date

08-05-2017

Operating System and Browser

Version 58.0.3029.96 (64-bit)

Bug Description

Under registration of account or coorperativeregistration it is not possible to switch back and forth between the two options. When coorperativeregistration if pressed, you are no longer able to choose "register new account".

Severity

minor

Steps   to   Reproduce

1. Go to Register

2. Choose "coorperativeregistration"
3. click "Register new account", you can no longer switch between the two options.

Actual Behavior

Clicked one option under the registration page locks you to that option, not being able to go back to "register new account"

Expected Behavior

Being able to switch between the two options on the Register page without being locked to coorperativeregristration when pressing it.

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Bug Report

ID

12

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

In the top left corner, you can change the size of the text, but in the original and blue version you cannot see the line where you pull the dot.

Severity

Tiny

Steps to Reproduce

1.   The bug is from the start, when entering the webpage

2.   When you change the color to blue, it is still not visible

Actual Behavior

You cannot see the line behind the dot, when changing the size of the text.

Expected Behavior

It is expected to see the line at all times, it was expected that the line would change color, when the rest of the webpage changes color as well.

ID

12

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

When you enter something in the search field, it adds an s to the word you searched for

Severity

Medium

Steps to Reproduce

1.   You enter a word in the search field

2.   When you press enter, it will add an s to your searched word

Actual Behavior

The search function seems to work, but it still adds an s, even though you didn't write it.

Expected Behavior

It is expected that the word you type in to the search function, is the exact same as the word after "result for".

ID

12

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

When you decrease the window, the search function is jumping around in the top, while the rest of the function are fixed to the webpage.

Severity

Tiny

Steps to Reproduce

1.   Decrease the window size

2.   See the search function change position

Actual Behavior

The search function jumps around, as you decrease the window

Expected Behavior

It was expected that the search function would stay at one position, while decreasing the window

ID

12

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

When you decrease the window size, the left menu bar disappears, and cannot be found anywhere

Severity

Major

Steps to Reproduce

1. Decrease the window size

2. See the menu bar disappear on the left side of the page

Actual Behavior

The menu bar disappears when you decrease the window size

Expected Behavior

It is expected to see a smaller menu bar or a navigation bar, when you decrease the window size in order to still be able to use the menu, at all times.

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ID

12

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

When you go to the products page, the boxes in the "search by" sticks out of the main column, and the text for the products pictures, overlaps the pictures.

Severity

Tiny

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Steps to Reproduce

1.   Go to the AAL Catalogue

2.   Choose products

3.   In the product page, you can see the errors

Actual Behavior

The layout is very unstructured and messy, when you go to the product page

Expected Behavior

It is expected to see an organized page, where the boxes and text do not overlap each other, and the boxes is not meant to stick out of the main column.

ID

12

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

When you go to online guides, and enter comparing business models, the text in the right side of the page, is cut off by the window.

Severity

Tiny

Steps to Reproduce

1.   Go to the online guides

2.   Go to "comparing business models"

3. Scroll down, and look at the right side of the page

Actual Behavior

When you enter the page, some of the text is cut off by the window, and you are not able to read all of the text.

Expected Behavior

It is expected to see the all the text, no matter where you enter on the webpage.

ID

12

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

When you try to register a new account, and you try to push the "register new account" button, it will not react.

Severity

Major

Steps to Reproduce

1.   Go to the "Register" in the top right corner

2.   Fill out the application, a press the button

3.   This will not work

Actual Behavior

When you try to register a new account, this does not work and it is not possible

Expected Behavior

It is expected to be able to register an account on a webpage like this

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ID

12

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

When you go to "services" ▢ "care 4 ever", it is not possible to upload a picture, since there is no upload button

Severity

Medium

Steps to Reproduce

1. Go to "services"

2. Go to "care 4 ever"

3. Scroll down to photos

4. See that it is not possible to upload, since there is no upload button

Actual Behavior

You cannot upload a photo

Expected Behavior

It is expected to be able to upload a photo, when you should be able to do this.

ID

12

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

When you got to "Expert Pool" to read about experts, and you go to the last three buttons "Education", "Experience", "Reviews", the background is black, and you cannot read the text written.

Severity

Tiny

Steps to Reproduce

1.   Go to "Expert Pool"

2.   Go to a profile

3.   Scroll down to the buttons

4.   Press the 3 different buttons, and see the background is black

Actual Behavior

The background gets black, and you cannot see the text and you are thereby unable to read it.

Expected Behavior

It is expected to see the text written at all times on the webpage, and furthermore be able to read it.

ID

12

Submitter

Xxx

iCareCoops
initiate . interact . integrate

Date

08/05/2017

Operating System and Browser

Safari version 10.1, OS X El Capitan version 10.11.6

Bug Description

On the frontpage/homepage in the bottom, there are 3 opportunities under "Our End Users", and when you try to press one of the "read more" buttons, it simply just reloads the homepage.

Severity

Medium

Steps to Reproduce

1.   Go to the homepage

2.   Scroll down to "Our End Users"

3.   Push one of the "read more buttons"

4.   Nothing happens

Actual Behavior

Nothing happens when you press one of the read more buttons.

Expected Behavior

It is expected to enter a new page, where you should be able to read more about the 3 different subjects.

Bug Report

Bug Title - one liner

ID

13

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Windows 10, Chrome version 57.0.2987.133

Bug Description

When making the page smaller on your screen it completely cuts of all the toolbar on the left-hand side.

Severity

Major

Steps to Reproduce

1.   Make the page smaller, for me it happens when I reach half of the original size of the browser window

Actual Behavior

The toolbar on the left-hand side including Go to Map, forum, products and more is completely getting removed.

Expected Behavior

The page to scale down in overall size should not remove the toolbar, but rather resize it.

Bug Report

Bug Title - one liner

ID

iCareCoops
initiate . interact . integrate

13

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Windows 10, Chrome version 57.0.2987.133

Bug Description

When changing language after having used the search function the site crashes

Severity

Major

Steps to Reproduce

1.   Search for something by using the search function on top of the site

2.   After the webpage shows the results resulting from the search, change language   to one of the other two

Actual Behavior

Site crashes after changing the language to of the other two available languages after having used the search function on top of the page.

Expected Behavior

To change the language

Bug Report

Bug Title - one liner

iCareCoops
initiate . interact . integrate

ID

13

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Windows 10, Chrome version 57.0.2987.133

Bug Description

When changing language and afterwards the background color and again the language, the language does not change. Or the webpage is swapping back to the previous color when changing the language after you swapped to the original webpage layout.

Severity

Minor

Steps to Reproduce

1.   Change language

2.   Change background color

3.   Change background color to original

Actual Behavior

The toolbar on the left-hand side including Go to Map, forum, products and more is completely getting removed.

Expected Behavior

The page to scale down in overall size should not remove the toolbar, but rather resize it.

Bug Report

Bug Title - one liner

iCareCoops
initiate . interact . integrate

ID

13

Submitter

Xxx

Date

08/05/2017

Operating System and Browser

Windows 10, Chrome version 57.0.2987.133

Bug Description

When going to Find Cooperative in the toolbar and using the boxes on the left-hand side to narrow down the selection, they are not working as intended. There isn't happening anything.

Severity

Minor

Steps to Reproduce

1.   Click on Find Cooperative

2.   Check some of the boxes on the left-hand side

Actual Behavior

The boxes on the Find Cooperative are not working as intended when checking them to narrow down the search

Expected Behavior

By checking some of the boxes the site should narrow down the search, or rather limit it to the box you checked.