Catalyst

catalyst-fp7.eu

Project Acronym:	**CATALYST**
Project Full Title:	**Collective Applied Intelligence and Analytics for Social Innovation**
Grant Agreement:	**6611188**
Project Duration:	**24 months (Oct. 2013 - Sept. 2015)**

D4.3 Project Test bed: Harvesting, Mapping & Analysing Arguments

Deliverable Status:	**Final**
File Name:	**CATALYST_D4.3.pdf**
Due Date:	**August 2015**
Submission Date:	**September 2015**
Dissemination Level:	**Public**
Task Leader:	**CSCP**

The CATALYST project consortium is composed of:

SO	Sigma Orionis	France
I4P	Imagination for People	France
OU	The Open University	United Kingdom
UZH	University of Zurich	Switzerland
CSCP	Collaborating Centre on Sustainable Consumption and Production	Germany
Purpose	Purpose Europe	United Kingdom
Wikitalia	Wikitalia	Italy

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **2** of **64**

Revision Control

Version	Author	Date	Status
0.1	Rosa Strube (CSCP)	September 10, 2015	Initial Draft
0.2	Rosa Strube (CSCP)	September 12, 2015	Draft
	Marc-Antoine Parent (I4P), Anna De Liddo (OU), Lee-Sean Huang (Purpose)	September 15, 2015	Quality Check
0.3	Marta Arniani (Sigma Orionis)	September 18, 2015	Draft reviewed
0.4	Marc-Antoine Parent (I4P)	September 25, 2015	Integrations
1.0	Marta Arniani (Sigma Orionis)	September 28, 2015	Submission to the EC

Executive summary

The present document is a deliverable of the **CATALYST project**, funded by the European Commission's Directorate-General for Communications Networks, Content & Technology (DG CONNECT), under its 7th EU Framework Programme for Research and Technological Development (FP7).

This document describes the testing of two tools of the CATALYST ecosystem of Collective Intelligence Technologies - LiteMap and Assembl - that was carried out by the Collaborating Centre on Sustainable Consumption and Production (CSCP). The aim of the work was to test **Harvesting, Mapping & Analysing Arguments**.

The **testing of LiteMap** was conducted from July to September 2014, together with the **technical partner Open University**. The testing platform was the community of the German website on sustainable consumption and lifestyles **Utopia.de**. The argument maps that were created and embedded into the Utopia.de website can be found at http://maptesting.kmi.open.ac.uk/.
The testing of **Assembl** was done from July to September 2015, together with the technical partner **Imagination for People**. The testing community was the participants of the **7th Sustainable Summer School**. The discussions that took place on Assembl during the summer school are available at http://discussions.bluenove.com/7sss#.

Table of Contents

1. Introduction

This deliverable is the outcome of **task 4.3 Harvesting, Mapping & Analysing Arguments**, which had the aim of testing some of the tools of the CATALYST ecosystem of Collective Intelligence Technologies with communities around the topic of sustainable lifestyles.

Part of the results, from the first year of testing, has already been presented in **D4.1.0 Evaluation of CI Software: Work Status**. The use of the creativity widget of Assembl which was part of the second test round is described in detail in **D4.4.2 Project Test bed: Online Creativity Support / video-based gamification**.

Creating a joint understanding of key challenges and potential opportunities for more **sustainable lifestyles** is recognised to be one of the big societal challenges of our times. It is at the same time a topic where **collective intelligence approaches** are needed, as evidence on the sustainability of personal behavior can be ambiguous or of dubious reliability. There are competing narratives and no single one-size-fits-all solution can be identified. In these contexts opportunities and common approaches can only be found through different forms of discourse, such as dialogue and debate. Though such debates have so far taken place more offline than online, Collective Intelligence Tools like the ones developed by the Catalyst project have the potential to support in overcoming the challenge of sustainable living.

As part of task 4.3, two tests with the Catalyst tools LiteMap and Assembl and different communities on the topic of sustainable lifestyles were conducted by CSCP.

The testing of **LiteMap** was conducted with the community of the German website on sustainable consumption and lifestyles **Utopia** (www.utopia.de) from July to September 2014 together with the technical partner **Open University**.

LiteMap can be used for Data Harvesting, Web Annotations and Argument Mapping. By providing these functions the tool can help reduce the following pain points that were highlighted by the community managers of Utopia:

- Poor Participation;
- Poor Summarisations and Visualisation;
- Platform island and Balkanizations.

Three argument maps were created, in collaboration, by three harvesters and embedded into the Utopia website using an iframe to display them to the Utopia.de community. Their content was annotated and harvested from discussions happening on different parts of the Utopia.de platform.

The argument maps that were created can be found at http://maptesting.kmi.open.ac.uk/.

The testing of **Assembl** was done with participants of the **7th Sustainable Summer School** (http://sustainable-summer-school.org/) from July – September 2015 together with the technical partner **Imagination for People**. The test was established as a 6-week pre-debate for the students of the summer school, giving them the opportunity to debate on questions and reading material relevant to the one-week summer school and to get to know each other online before meeting in real life. In this case, the community was established for the test, so no pain points pre-existed. However, engaging with the topic of the summer school by debating and developing a common understanding of challenges for sustainable living were seen as needs that could be fulfilled by the tool Assembl. Over the course of 6 weeks, the participants were engaged in a discussion on sustainability challenges related to their everyday choices and potential solutions. Five harvesters posted a new question for debate every week, created synthesises and added to the debate. One live meeting was held with the students during the summer school to present the results of the debate and to collect feedback.

The discussions that took place on Assembl during the summer school are available at http://discussions.bluenove.com/7sss#.

2. Task 4.3: Harvesting, Mapping & Analysing Arguments

2.1 Description of the tests under task 4.3

This section provides an overview on the description of the tests in the DoW and updates adopted during the course of the project.

2.1.1 Description of the test as in the DoW

The DoW states the following under task 4.3:

Focus of the testing task: Assisted and Distributed harvesting and mapping

Testing Partner: CSCP Sustainable Lifestyles / I4P

I4P will test 2 different contexts of harvesting: 1) "Expert harvesting" 2) "Distributed (crowdsourced) harvesting"
Both tests will be conducted with CSCP communities:
• The first test ("Expert harvesting") will be conducted with a small group of 100 people with 3-4 harvesters and will run for three months (Months 9-11). It will comprise 2 iterations. The primary objective will be to optimize the ease and speed of the harvesting process through automated aids. The secondary objective will be to optimize the use of Argument Mapping structures through combined human analysis supported by Deliberation Analytics.
• The second test will be conducted with a larger group of 500 people with 2-3 "official" harvesters and an undefined number of voluntary harvesters from the community. It will run for six months (Months 12-17) and will comprise 2 iterations. The primary objective will be to develop a set of micro-tasks that amateur harvesters can execute in order to reduce the burden of mapping large-scale deliberation structures. The secondary objective will be to help define a segmentation of potential tasks with the corresponding profiles of harvesters.
Test 1 will start Month 9 and will end Month 11. Test 2 will start Month 18 and will end Month 23.

2.1.2 Update to test description in the DoW

As already specified in D2.4, the **first test round** carried out by the community partner CSCP was supported by the technical partner Open University and its tool LiteMap. This change of technical partner, compared to what was mentioned in the DoW, was decided to best fit the pain points identified by the test bed community earlier in the project. Highest interest was shown for a tool that could be able to show different discussion streams in an argument map. Additionally, the nature of the online community asked for an integration of the tool into the existing website, a function, which LiteMap could fulfil with the help of an iframe.

The **second test round** was carried out with I4P and the tool Assembl, testing both expert harvesting and the usability of the tool for the participants of the online discussion. The process that led to the selection of the testing community is described in detail in section 2.3.1.

2.2 Test 1: Argument harvesting and mapping with LiteMap and Utopia.de

This chapter provides the description of the first test conducted under task 4.3 on argument harvesting and mapping using LiteMap and the community Utopia.de. It includes a description of the setting of the test (2.2.1), the details of the test bed implementation (2.2.2) as well as the feedback gathered from the harvesters (2.2.3) and the Utopia community (2.2.4). Section 2.2.5 puts the results into perspective and presents the lessons learnt.

2.2.1 Setting of the test

Utopia.de is the **largest German online community** for consumers interested in exchanging opinions about the topics of **sustainable consumption and sustainable lifestyles** with more than 80,000 registered community members. The team at Utopia produces articles and organises chat sessions with companies. Additionally, there are several different discussion forums and groups on the website where community members post their questions and ideas.

By signing in to the Utopia community, anyone can become a member and contribute to the different forums on the platform. Many of the discussions tackle similar topics, but happen in different places. Community managers working for the Utopia platform as well as some active users try to connect, from time to time, different discussion streams by mentioning where the same topic has been addressed before in a conversation. CSCP has partnered with Utopia.de for this first test.

The argument maps were created using the LiteMap tool and were integrated into the website of Utopia using an iframe.

2.2.2 Description of the test bed implementation

The test with Utopia.de and the Catalyst tool LiteMap started on July 3rd and ran officially until September 22nd, 2014. Over the course of these six weeks, **3 argument maps** were integrated into the website with the help of an iframe. The Utopia newsletter, which is sent out once a week on Thursdays, announced each new map to the audience. Additionally, the newsletters of the weeks during the test period focussed on a subject related to the topic addressed in the map. Over the entire testing period, an advert at the side bar of the webpage pointed to the testing website (See Picture 1: Screen shot – Utopia.de home page with advert pointing to the testing site).

The website in which the maps were embedded also explained how to use the map and provided information on the Catalyst Project as well as a link to a discussion forum for the content of the argument map and a feedback survey (See Picture 2: Argument map embedded in Utopia.de).

During the testing period, over 800 people navigated to the argument maps. Most **traffic** was generated after the newsletters were sent (after each one, around 130 visitors came to see the argument maps on the same day).

In total, 57 people started and 27 completed the survey on the usability of the tools. Additionally, 4 people posted feedback on the usability directly in the discussion groups.
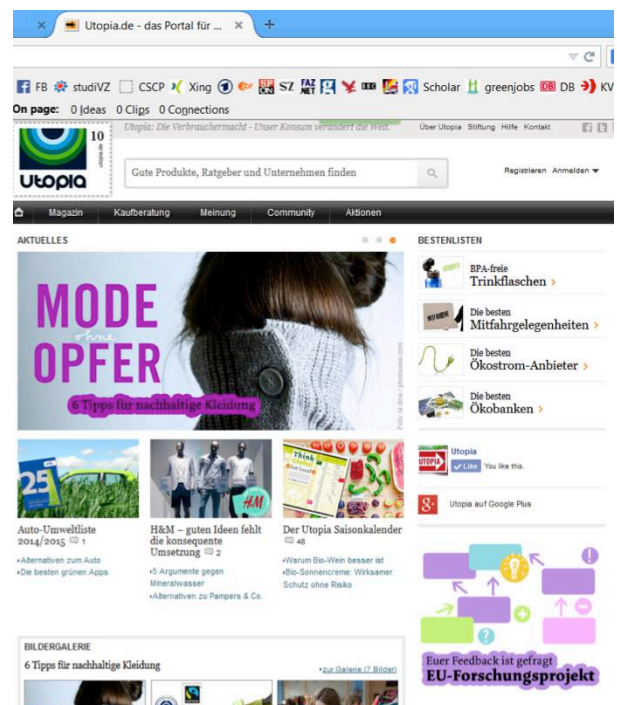
Picture 1: Screen shot – Utopia.de home page with advert pointing to the testing site

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ∎ **August 2015** ∎ **CSCP**

The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **8** of **64**
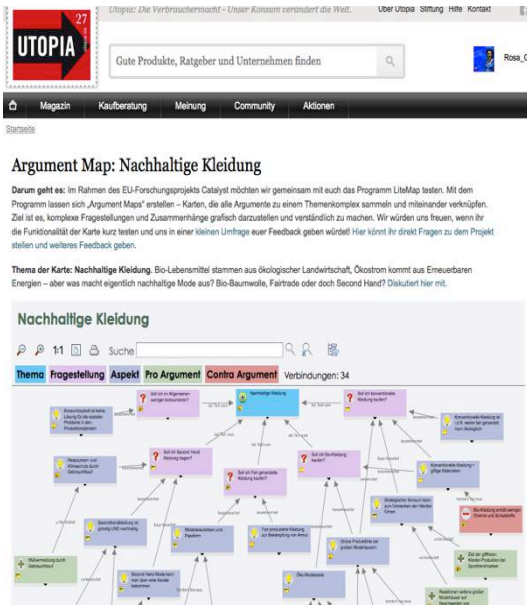
Picture 2: Argument map embedded in Utopia.de

The first map was the one that generated the most discussions in the forum. However, this can also be attributed to the nature of the question addressed in the map, which was a debate of two ideas, whereas the following maps showed different aspects of a complex issue. The first map addressed the question of whether it is sustainable to buy organic products from discounters, the second one the question of what can be seen as sustainable fashion. The third argument map demonstrated the different aspects of the relationship between car sharing and sustainability.

Three expert harvesters created the argument maps as planned before. The number of participants engaged exceeded the 100 people expected originally. Cooperation between community and technical partners worked very well. Exchange of emails, in some cases, occurred up to 10 times a day (especially related to bugs in the programming); the experience of creating the map was also shared between partners through several telephone calls and interviews.

2.2.3 *Feedback from the harvesters on using LiteMap*

During the testing phase, the harvesters and the technical partners were **constantly in contact to share direct feedback on technical aspects and the usability of the tool** and to gather feedback on the harvesting experience. At the end of the testing phase, **semi-structured interviews** were done with the harvesters to understand better how they worked with the tool. The main outcomes of both are presented below.

Direct feedback on the design of the tool provided by the harvesters

In the **internal testing phase** of LiteMap between testing and technical partners, many small bugs and usability issues were changed. This included, for example, the size of the text displayed in the boxes of the argument map, the content that could be seen via a roll-over, the colour scheme of the different layers of the map, the possibility to move the arrows around freely in order to connect boxes which belong to different ideas, etc.

Based on the **feedback from Utopia's users**, some navigation items were increased in size to make navigation easier. Some people explained that they sometimes found the map's structure confusing and were interested in a linear view as well. Therefore, this option was added via the button "*switch to other view"*.

For the harvesters, a function of an **open comment** was added. The process of creating maps proved that this function made the initial collection of web quotes, prior to a full development of the map's structure, easier.

Feedback on the harvesting experience gathered via the semi-structured interviews with the harvesters

The interviews showed that the harvesters found it **challenging** to build a map collaboratively in the same virtual space. They used a bottom up approach, first harvesting different arguments, then ideas before finally defining the issues. This proved to be challenging, as it was difficult to cluster and to agree on one common entry point between the different harvesters. The harvesters underlined that the process of creating a hierarchy of arguments and ideas and of clustering them was highly subjective.

The answers of the harvesters also made it clear that there is a need for different mapping processes for different problem types and mappers expertise. While background knowledge of the topic that is being mapped helps to smoothen out the harvesting process, its success also highly depends on the complexity of the issue being mapped and a well-defined overall question for the

argument map. Training with the tool and knowledge and practice with the IBIS argumentation model can be seen as additional success factors of effective mapping.

The **main advantage** of the argument map expressed by the harvesters was the advancement of personal knowledge of the topic. They acknowledged that structuring ideas, as it is done with LiteMap, adds a great value to personal reflection, as well as the opportunity to visualise how aspects of complex topics relate to each other.

2.2.4   Feedback from the Utopia community on LiteMap

To understand how useful the Utopia community found the argument maps, an **online survey** was put on the website next to them.

In total **57 users** started to fill in the survey, 30 of them filled it in partially and **27** people actually **completed the survey**. The high rate of uncompleted surveys might be related to its length, that was on the other hand seen as necessary to get an in depth understanding of the participants' views. Twice as many women as men (voluntary response/ 24 answers of 27 possible answers) participated in the survey. The full results of the survey are available in Annex 3.1.

Most of the users who filled in the survey visit the Utopia website several times a month. A lot of users visit the website several times or, at least, once a weak. Nevertheless, most of them do not participate very often in discussions on the website: 44% of the survey participants stated that they do so less than once a month. 32% even declared to have never participated. A very small number of users (4%) participate once a week, while 8 % participate several times a week.

The **results of the survey** can be summarized as follows:

- The users of the "Argument Map" had different opinions on the helpfulness of the software to **structure discussions more efficiently**: while more than one third thought that the software was helpful (33%), the same amount of people did not categorise the software as helpful (33%). Nonetheless, 12.5% said that the software is definitely helpful and no one thought that the tool is "not at all" helpful (0%);
- Almost one third (26%) relatively **liked the map**, 17% definitely liked it and the same amount did not like it at all. More than half of the participants of the survey **would use the "Argument Map" again** while almost 40% do not think they will use it again;
- In the comment sections, some participants mentioned that it would be good to **improve the visualisation** of the map and that it was not completely structured in a clear way. In general, they liked the idea of such an argument map but they also mentioned it was not that easy to use;
- The majority of users (54%) thought that the **use of the programme** was not easy. Only a minority (4%) said it was definitely easy and 21% said it was rather easy to use;
- When specifically asked about the **ease of use and navigation of the argument maps** the opinions had an equal split: 33% of the users said the navigation was easier than average (25% rather easy and 8% definitely easy), while an equal 33% judged that the ease of naviagation was below average (21% rather not and 13% definetely not easy). The navigation was mainly criticised due to the fact that users did not find it very easy to read the map due to different, zooming and icon size issues. In this context, the implementation of a search function was suggested. The users mentioned that it would be great to be able to search for a certain argument in the map without having to study all the other arguments beforehand;
- The opinions about the **user-friendliness** were rather negative: 28% answered with "rather not" and 16% with "not at all", 28% found that the user-friendliness would be average, and 28% found it above average (12% said quite a lot above, and 16% rather above average);
- The most promising results lay on the recognised capability of the argument map to **improve understanding and problem representation**: 67% of the participants claimed that "generally they did not have any problem to understand the sense of the contributions in the map", and 58% "thought the other members as well understood the argument map without any difficulty". Also 33% of participants found rather easy or very easy comprehension of the most important arguments and the key positions developed in the online discussion, against a 13% who found it rather not easy and an

8% who found it not easy at all. On the capability to "develop better understanding of the ideas and opinions of others on the topic" there was an equal split: about 33% of the participants thought that their understanding was either rather improved (20%) or definitely improved (13%), while 25% thought it rather did not improve and 8% thought it did not improve at all. On improving collective understanding of the problem 33% found it rather improved or definitely improved while an equal split of 33% found it either not at all or rather not improved. Finally, 29% of participants found that "after they used the tool they had the impression that the Utopia discussion had a lot of repeated content against only a 12% that did not found this at all true, this question aimed to test if the summary map had a positive "reflective" power on the Utopia discussion;

- Users' assessment of LiteMap representation features was also widely positive: 44% of the users found the feature of "summarising a topic's many aspects, which are normally distributed around the whole website" very useful, against only a 4% who found this not useful at all. Also the representation of these many aspects in form of an argument map was found very useful by 36% of the participants against only 12% who fount it not useful at all. Exploration of the content by category was considered very useful by 24% of participnats against only 8% who found it not useful at all and the "possibility to navigate back to the Utopia discussion" was considered very useful by 32% of participants against 24% who found it not useful at all;

- Also, more than a third of the users had the impression that the software helped them to clearly understand the course of online discussions. 12.5% was convinced that it definitely helped them, while the same amount of users was not sure about the utility of the software. Almost 17% said the software did not help them at all.

- About one third gained a better understanding of the topic by using the software. Nevertheless, 36% said that it did not help them to get a better understanding. The majority of the users found that the software did not help them to make better contributions to online discussions (36% answered with "rather not" and the same amount answered with "not at all");

- Finally, not everybody approved the structure of the argument map. Furthermore, other starting points and ideas as a basis of the map were desired. The font size was considered too small. One contributor felt that the map would be good for pupils but not for older users.

2.2.5   *Main lessons learnt from the testing with LiteMap*

Utopia's community manager mentioned Balkanisation as one of the key pain points. While the map **brought together the arguments in one place**, it could obviously only capture the content debated on different places and could not physically connect the discussions. While it was possible to navigate back to the place where the harvested ideas had been annotated via the argument map, this process required users to get into some details of the tool. This is a challenge when dealing with an established community working with a closed online platform, where the only way of integrating Catalyst tools was using an iframe. However, given the circumstances, the argument maps were successful in connecting the different aspects of complex topics, which had been raised all over Utopia.

From the comments of users it also became clear that **learning to read and navigate an argument map takes time**. Therefore, the user experience improves when participants see and navigate the argument maps several times. For a testing period of only six weeks, the experience of learning how to use the tool can only be considered as preliminary.

What needs to be taken into account for **future developments** of the tool is its **design**. Feedback showed that users of this test bed are looking for very well designed and modern online tools. This is what they are used to experience on the Utopia website. Several remarks showed that the visuals and the navigation on the argument map, as it is now, were not as modern as users expected.

Finally, it could be seen that though the questions related to sustainable living discussed on Utopia.de are complex and well suited for applying collective intelligence, only some of the comments on the website have the **level of depth and detail** that is needed to create a useful argument map. The quality and usefulness of an argument map largely depends on the harvested content. A way to

improve the quality and at the same time make the argument maps more relevant to users would be to include external (scientific) sources to the map.

To further **put these findings into perspective**, it has to be noted that, so far, the Utopia platform has not used any features other than forums with linear commenting functions for online discussions. This means that users are not accustomed to debating in other ways or to seeing complex topics in more structured forms such as the IBIS model. Often, understanding the model and appreciating its structure takes some time and practice.

Further, it could be seen that **design and ease of use** are criteria that the Utopia users rank very high. These users might be much more willing to spend time on a tool which looks modern and is very easy to navigate. In the light of this consideration it can be seen as extremely positive that, despite the low score on usability, the score on i**mproved understanding of the discussion** and the assessment of the native representation features of an argument map received a very positive scoring. In other words, users recognised the advantages of the tool but would welcome a redesign to make it easier to navigate and use.

Two people who saw the argument maps approached the testing partner asking if they could use the program for their own work. This can be seen as a very positive feedback, as the tools are perceived as useful up to a point that people want to bring them into their own communities.

2.3 Test 2: Discussion and harvesting with Assembl and the 7th Sustainable Summer School

This chapter provides the description of the **second test** conducted under task 4.3 on online discussion and argument harvesting with **Assembl** and the **7th Sustainable Summer School community**. The chapter starts with the background on identifying a suitable testing community (2.3.1) before describing the setting of the test (2.3.2), the details of the test bed implementation (2.3.3) as well as the feedback gathered from the harvesters (2.3.4) and the students of the Sustainable Summer School (2.3.5). Section 2.3.6 puts the results into perspective before the lessons learnt are presented (2.3.7).

2.3.1 Identifying a suitable testing community

In order to test Assembl, CSCP engaged with a large **number of online communities working on sustainability topics**, which could have an interest and a need for online tools supporting collective intelligence. First, a desktop analysis of existing networks as well as Facebook groups[1] was conducted. After this, the following organisations were addressed directly and the options of using Assembl were discussed in bilateral talks: Oikos International (international student organization for sustainability), The green party in North Rhine Westphalia: Working group on sustainability and economy, Leuphana University Alumni Network, Oui Share Germany, FabLabs Network Germany, Sustainable Summer School, Open Knowledge Foundation Germany, UNDP-ART. For different reasons, only the Sustainable Summer School agreed on conducting a test of Assembl together with CSCP, whereas the other actors either didn't see enough benefit in using it or saw obstacles in implementing the test. The talks however provided very relevant feedback and insights on success factors for using the tool. A summary of this can be found in the lessons learnt section in point 2.3.7.

2.3.2 Setting of the test

The **Sustainable Summer School** is a one week summer school that was organised this year for the 7th time by Wuppertal Institute for Climate, Environemnt and Energy; Folkwang Univeristy of Arts; Ecosign Akademie für Gestaltung; Aalto University; UNWID of Bergische Universität Wuppertal; Universitat Politecnica de Catalunya; Hochschule Luzern; Fraunhofer Umsicht and CSCP. The summer school offers courses mostly for design students from all over the world interested in sustainability and takes place in different countries each year. The 7th Sustainable Summer School had the topic of "Exploring ways for sustainable transformation in a limited world" and took place from August 30th to September 6th, 2015 in Jüchen, Germany.

The **decision to test** Assembl with the Sustainable Summer School was taken on the basis of the following arguments:
- The topic of this year's Sustainable Summer School "Exploring ways for sustainable transformation in a limited world" is complex and challenging enough to require collective intelligence for developing joint solutions;
- The participants of the discussion – students of the summer school – are based in different countries and did not have the chance to meet in person before the summer school started;
- The students of the summer school have not used any other platform for interaction so far;
- Given that the students knew they would meet in person after the discussion was finalised, and the topics discussed corresponded with their preparation material, they had a reason to join the discussion.

However, it was decided by the different universities and research institutes running the summer school, that the discussion should **not be mandatory** for the students and that it had to be communicated as a voluntary option for them to join.

In total, 44 **students** registered to attend the 7th Sustainable Summer School, but only 29 of them participated in the school in the end. The ones who didn't join mainly decided this due to financial reasons. Therefore, they were also less likely to participate in the online discussion. Out of the 29 students that did participate in the summer school, two registered only a few days before the start of the program and hence were not invited to join the debate anymore. Two students reported that they didn't receive the invitation e-mails to the online discussion and explained that they had problems with their e-mail accounts on a regular basis.

2.3.3 Description of the test bed implementation

---

[1] Including others Consensus Network, the Sustainable Consumption Research and Action Initiative (SCORAI), Slow Food, Transition Towns Germany, Basic among income earth network, European living labs network, Food Sharing, Wachstumswende, NaWis - Verbund für nachhaltige Wissenschaft.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **13** of **64**

Timeline and activities

While the preparation for the second testing phase started in March 2015, the test with the 7th Sustainable Summer School started on June 16th and finished on September 2nd, 2105. In total, 110 messages were posted in the discussion (Picture 3 shows a screenshot of the discussion).
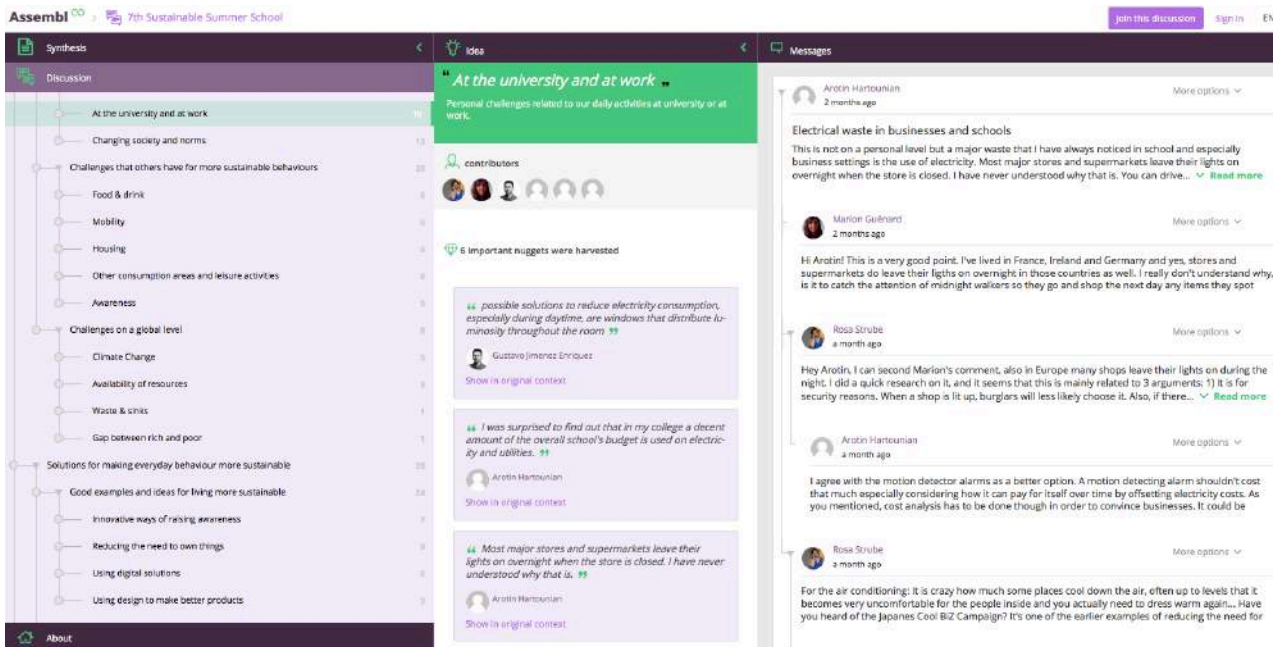
Picture 3: Screenshot of the online debate

The **steps of the testing** are detailed below:

- Before the official start of the online debate, an **Assembl platform** for the 7th Sustainable Summer School was **set up** (http://discussions.bluenove.com/7sss), all information on the testing aim and setup, as well as on how to use Assembl, was added and the website was populated with some first content by the harvesting team;
- On June 16th, one day after the official deadline for registration to the Sustainable Summer School, all students who had, up to this point, signed up received an **invitation e-mail to join the online debate** (see Annex 3.3), which explained the setting of the testing, provided the questions for the first week of discussion and provided a short description about the Catalyst project;
- After the first week of discussion and harvesting, the **first synthesis** was posted to all participants that had already signed up to the platform (9 people) via the synthesis function of Assembl and to all other summer school students that had not signed up so far via a normal e-mail (30 people). 4 participants who had registered for the summer school later were also invited to join. The first synthesis can be found in Annex 0;
- In total, **5 syntheses** were posted on Assembl and sent to the participants on July 23rd, July 30th, August 6th, August 13th And September 2nd;
- The **"inspire me" function** was used starting from the second discussion phase, from week 4 onwards. The **creativity session** feature was used for phase 3 in the last week of discussion;
- One **webinar** was hosted to encourage additional participation and to introduce the **creativity widget** on August 24th (see Annex 3.5 for a recap of the webinar sent to students who did not participate in it);

- On September 2nd, the team of harvesters joined the students during their summer school in Jüchen, Germany, for **a live meeting**. They presented the most interesting results of the online discussion by displaying the harvested quotes from Assembl and organising them into the structure developed for the Table of ideas. Also, some of the creativity cards were added. During the session, all students read through the quotes of the contributions (see Picture 4). They were also able to add more content by writing it on additional cards provided and later voted for the most relevant ideas. After the interactive session, **feedback on the testing** was collected from them via surveys and discussions.

Picture 4: Students reading the comments from the online discussion during the face-to-face meeting

Encouraging participation

In order to ensure and **encourage participation of the students** in the online discussion, the following **measures** were taken.

Making the discussion relevant for the students:
- The discussion centred around the topics that were addressed during the summer school;
- The reading material suggested for the summer school was integrated into the weekly questions and the links were put on a dedicated section in the Table of ideas;
- The questions were selected to bridge personal lifestyle decisions with the broader topic of sustainability to make it easy and accessible for the students;
- The online debate was advertised in such a way to give the students the opportunity to get to know each other before meeting at the event and to prepare themselves for the content;
- Due to time constraints, the professors of the summer school unfortunately didn't agree to directly connect the outcomes of the discussion to the workshops held during the summer school.

Offering rewards for participation:
- Since the beginning, it was communicated to the students of the Sustainable Summer School, who were mostly design students, that the results of the discussion would be presented in a creative way during the event;
- It was also communicated that the most active contributors would receive a sustainable food basket. Additionally, everyone who filled in the survey would receive chocolate;
- A sustainable design solution challenge was launched. To encourage students to participate in this challenge, we offered personal coaching to evaluate and improve their design idea.

Questions posted during the discussion

The **following questions** were posted over the course of the debate. They also corresponded to the Table of ideas created week by week.

Phase 1: **Getting to know each other and getting familiar with the topic** (week 1-3)

- When you think about your last week, when did you take decisions that you know were unsustainable and why did you do so?
- Which additional challenges for living a more sustainable lifestyle do you see for yourself or people around you, for example when it comes to eating and drinking, shopping, getting from A to B or being at home?
- Which challenges on the global level are described in the publications by the Club of Rome?

Phase 2: **Discussing solutions** (week 4-5)

- Which good examples have you seen or heard of recently that make it easy for people to live a more sustainable lifestyle and to integrate sustainable behaviour into our daily routines? What do you like about them?
- Looking at the many examples that came together here, which ones do you think have the highest potential to change the way we act everyday? To which areas can they be applied and how can they reach more people?

Phase 3: **Sustainable design solutions** (week 6-7)

- Which sustainable design solutions can you think of to address the challenges collected before? Which ideas do you have and what would you like to develop in the future?

2.3.4   *Feedback from the harvesters on using Assembl*

Overall, **five harvesters** from CSCP were involved in the testing of Assembl. Over the entire testing period, they constantly collected feedback on the tool and shared and discussed it with I4P. Additionally to this **direct feedback** and on-going dialogue between the harvesters and the technical partners, the harvesters also completed a **survey**. One harvester only gave direct feedback and did not complete the survey.

The harvesters both contributed and moderated the discussion. They had similar starting points for joining the debate compared to the other participants, as they were partly also students, had no prior experience with Assembl and had personal interest in the topic discussed. Therefore, their feedback has been collected both from the user and from the harvester's perspective in the surveys.

Direct feedback

The **direct feedback** comprised technical feedback, feedback related to the logic of the tool as well as suggestions on how the tool could be developed further in the future.

The main aspects of the **technical feedback** besides small bugs were around the options to delete own discussion items and wording of the different panels that was understood in different ways by different people.

The feedback related to the **logic of the tool** included the preferred options for showing the messages when first landing on the Assembl page – either threaded or anti-chronological. Also, the fact that messages cannot be moved, even if they might have been misplaced by mistake, was identified as another challenge. It would have been helpful to be able to select different but not connected sentences of one discussion item for harvesting them on one post-it. The order of the post-its with harvested quotes cannot be changed, which would be very helpful to create a logical story line on the platform. Also, the nugget function for harvested content created some misunderstandings for the harvesters.

The **amount of content displayed** at once on the page (instead of just showing the title of the messages) was identified as another challenge especially once the discussion had taken off. Also, for conversations, that start on one topic and move to another, only the entire discussion thread can be harvested under one idea in the table of ideas.

The harvesters also came up with different **suggestions on how the tool could be improved** even more in the future. The most important one centred on the idea of **integrating more visual elements** in the platform. It was considered as being very useful to spark the discussion to be able to upload and embed pictures and to provide thumbnails for embedded videos. Also, uploading of files can be useful in certain situations. For people not wanting to log in with a social media account, the option to add a profile picture should be provided. Easy options for adopting the colours to the corporate identity of the community might increase ownership of the discussion.

In terms of **functions of the tool**, the following aspects were raised: To keep the platform slim and easier to use, the harvesters suggested to offer less options for panel groups and to give a one step option to open the synthesis and clipboard function. A

searching function would be very useful. Personalisation of user accounts with some information on the person might make it more interesting to interact online. For international discussions, even a small flag to show which country the person comes from would be interesting. Also, users could then navigate to a profile of another user and see which other messages that person has posted. In terms of intensive smartphone use, a mobile application of Assembl would obviously be something very useful to enable participation on the go.

Feedback gathered via a survey

Harvesters were also asked to fill in a survey to give their detailed feedback on different elements of Assembl. The detailed results of the survey can be found in Annex 3.6.

Data about the harvesters
A total of 4 participants responded to the harvester's questionnaire. Half of them were female, half were male, and their average age was 29 years.

2 harvesters spent between 2 and 4 hours a week on Assembl, one spent between 4 and 8 hours a week and one participant spent more than 8 hours a week on the tool.

Harvesting features used
Not all harvesters used all functions provided by Assembl. The following overview shows who of them used which feature:
- All harvesters harvested ideas and sent them to the Clipboard panel
- 75% of the harvesters used the Diamond feature
- 75% of the harvesters structured harvested ideas under the Table of ideas panel
- Half of the harvesters created and structured the Table of ideas panel
- 25% of the harvesters created a Synthesis

General perception of Assembl
The harvesters were asked for their general perception of the tool. The results demonstrate, that the **usefulness of Assembl** is rated very high. All participants found Assembl useful to organize the discussion efficiently and for steering a discussion. Half of them found it useful to connect different contributions and opinions, while 75% of them found it useful in creating an overview of the main themes of a discussion.
One harvester highlighted that Assembl provided several useful features, especially the Table of ideas, that he/she didn't find in other platforms used for structuring debates

General level of difficulty to use Assembl
The overall feedback on the level of **difficulty in using Assembl** was very positive. The responses show that Assembl is seen as an easy to use tool. 75% of the harvesters found Assembl very easy to use. All participants found the structure of the tool easy to grasp and agreed that learning to use it does not take long. Also all participants agreed that navigating through Assembl was easy. Less agreement was reached when looking at the **graphic appearance** of the tool: Only half of the participants found the graphic appearance pleasing. 75% of them believed the **terminology** used was easy to learn and understand

Harvesting process and features of the tool
All participants found the **process of harvesting** easy to understand. Only 25% of the participants believed it was easy to find the appropriate number of harvested extracts, while 75% of the participants found it was easy to understand which contributions had already been harvested and the same number agreed that Assembl made it easy to work together as a group of harvesters.
75% of the harvesters believed harvesting was a good incentive for people to participate in the discussion
Half of the participants said that the **Table of ideas** was easy to create; while 75% of the participants agreed that it was easy to operate within it. All agreed that the structure of the Table of ideas was easy to understand and that the structure of the table of ideas was helpful to provide an overview of the discussion.

All participants agreed that the **Ideas panel** was easy to understand, that it was easy to operate within it and that it was helpful to display the most interesting contributions. Half of the participants found the Diamond feature useful in the harvesting process. 3 comments mentioned the diamond feature as not very intuitive and clear.

All participants agreed that the **Discussion panel** and its features were easy to understand, that it was easy to operate within it and that it was easy to keep track of the messages thanks to it. 75% believed it was easy to allocate messages appropriately to sections and subsections within the Discussion panel.

All participants agreed it was easy to understand the **Clipboard panel** and that it was useful during the harvesting process.

The harvester who had created a Synthesis found it easy to create it and strongly agreed that the technical features of Assembl made it faster to create it.

75% of the harvesters understood the difference between **full-functionality and simple mode screen**, but only 25% found it useful to have the option to switch between both screen modes. The others stated that they found the different modes unnecessary.

The following open questions provided additional insights into the harvesting work.

Comments on the capacity of Assembl's design to increase the quantity of contributions

Two harvesters stated that they believed that Assembl's easy-to-use design was suited to increase the **quantity of contributions**. One harvester believed that the quantity of contributions could increase if the overall design was less text-heavy and visually more appealing. One harvester was surprised to see that the weekly synthesis had apparently no influence to raise the quantity of contributions.

Comments on the capacity of Assembl's design to increase the quality of contributions

All harvesters agreed that Assembl's design does contribute to a higher **quality of contributions**. Two harvesters believe that the possibility of having an overview of all the discussion topics was really helpful to avoid making general inapplicable comments to a particular topic, thus raising the quality of the comments. One harvester mentioned that the weekly summary presented in the synthesis was really helpful to avoid doubling topics.

Comments on what the harvesters liked most about Assembl

One harvester liked the Discussion panel because with it participants can choose the topics of their interest. The harvesting feature was found useful because it shows participants that someone is actually reading their comments. Additionally, the relevance of the harvesting feature was mentioned, due to the fact that a reader can get a general idea of the discussion without having to go through the whole thing.

Comments on what the harvesters found most problematic about Assembl

One harvester mentioned the fact that certain options are not very clearly visible, such as the Video creativity widget. The fact that it is not possible to create one harvested comments using several parts of the same text was also mentioned.

The harvesters would have liked to be able to use more visual features on Assembl. The lack of opportunity to share photos and embed videos was also mentioned as well as the lack of possibility to upload a profile picture, without having to link it to some other account, such as facebook.

Overall satisfaction with Assembl as a tool for online discussions

All participants found Assembl useful to efficiently organize discussions, all agree it is useful to quickly understand complex discussions, all believe it is useful to interact with other people and that it is useful to gain new knowledge.

2.3.5   *Feedback from the Sustainable Summer School Students on Assembl*

The **surveys for user feedback** were distributed among the students of the 7th Sustainable Summer School during the live meeting on September 2nd, 2015. In total, 9 people filled in the **survey for users that had actively participated** in the online discussion

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **18** of **64**

(Detailed results are available in Annex 3.7). 17 students who had not contributed to the debate also filled in **another survey to gather an understanding on their reasons not to**. Out of these 17 students, 10 had looked at the debate on Assembl, while 7 had never navigated to the website (Detailed results are available in Annex 3.8).

Feedback from students that contributed to the discussion

Data about the participants
56% of the survey respondents were female, 33% male, while one person didn't provide a gender. The average age of the survey respondent is 28 years.

It becomes very clear that the participants of the Sustainable Summer School **don't usually engage in online debates**. 56% of respondents declared they had never participated in online discussion before, while 44% said they had participated in online discussions (other than facebook and twitter) few times before.

Usability of Assembl
The **usability of Assembl** received in general very positive feedback. 67% of respondents agreed they knew what was expected from them the first time they saw the website. More than half of the participants agreed or strongly agreed that the explanation on how to use the website on the welcome page was clear. 77% felt the software made it **easy for them to join the discussion**. While the Table of ideas and the Idea panel were mostly considered helpful to follow and understand the discussion, all participants considered the **Synthesis as very useful** to understand the debate. 77% also felt that the weekly synthesis motivated them to contribute with the debate. All participants found the e-mail notifications very useful.
11% strongly agreed and 56% of users agreed on the statement that they felt **intimidated by the amount and the level of the conversations**. In the comments this was specified by a participant who said that complex discussions can in general be overwhelming and confusing in the beginning, especially if the person is not used to how the online discussion tool functions. Another statement also demonstrated that Assembl was seen as well suited to deal with large amounts of information: "My first interaction with the platform was rather challenging. The discussion had already been going for a while and I found it hard to get familiar with the whole tool. After some times of using it was relatively easy. After working with it for some time every feature seemed to make more sense. Overall, the tool is certainly helpful in helping someone to get integrated in the discussion."

Ways to interact with Assembl
Users generally found the **amount of options to interact** on Assembl okay. At the same time, there was almost no wish to have more options for interaction that the ones provided. For accessing the debate, the most popular way stated by the users was via the notification e-mail (40%), followed by reading conversation threads (25%), through the table of ideas (20%) and by looking at the idea panel (15%). The additional comments underlined a general satisfaction with the different options: "All ways are suited to access the conversation." "With Assembl it is rather easy to get involved into the discussion."

Usefulness of Assembl
The overall feedback on the **usefulness of Assembl** was also very positive. 78% of the respondents found that Assembl was a useful tool to organize online discussions, 67% found it useful to understand complex discussions and 89% found it useful to interact with other people. All respondents found it useful to gain new knowledge. It is especially positive that the users were so convinced by the tool that they would use it again: 89% declared they would use Assembl again for online discussions and 77% of them would **recommend Assembl to a friend**. The open comments underline these positive outcomes: One respondent felt that Assembl was a great tool for complex discussions. Another respondent mentioned how Assembl's design was helpful to make complex discussions more understandable

Nature of the debate
In order to get a good understanding not only of the tool, but also of the content, some questions on the nature of the debate were asked. The **nature of the debate received highly positive feedback** from the respondents. All respondents regarded the topic of the discussions as interesting and considered the level of the discussion as high. All respondents also felt they could gain new

insights thanks to the topics being discussed. 89% of the respondents felt that the discussion helped them to **generate new ideas and solutions for challenges** on sustainable living. This feedback was underlined by comments like: "I was positively surprised by the high level of discussion."

Feedback from students that did not contribute to the discussion

56% of the respondents **looked at the discussions but did not contribute**, while 44% of the respondents **did not look at the discussions at all**. The first group was also asked to answer the usability questions, and both groups were asked to answer the questions shedding light in why they decided not to participate in the debates.

Data about the participants
59% of the survey respondents were female, 35% male, while one person didn't provide a gender. The average age of the survey respondent is 27 years.

When looking at the normal **level of online engagement** of this group, similar to the other one, it becomes very clear that the participants of the Sustainable Summer School don't usually engage in online debates. 65% of respondents declared they had never participated in online discussions before, while 24% said they had participated in them (other than Facebook and Twitter) few times before. Only 12% declared they participate on a regular basis in online discussions.

Usability of Assembl
It is not surprising to see that within the group of students who looked at the online discussion but did not contribute to it, the levels of **satisfaction with the usability are significantly lower**. Ratings for easy access to the discussion and understanding the tool ranged from 10-50%.

Barriers to contributing to the discussion in Assembl
Different reasons were stated by the students on reasons **why they did not contribute to the debate** on Assembl. By far the most relevant one was related to **time constraints**: 60% claimed to have insufficient time to follow the discussion and contribute. Only 12% of the respondents felt the topic of the discussion was not interesting enough and only 6% felt they had nothing to contribute. 24% stated that they **felt uncomfortable posting comments** in virtual settings, 30% prefer to read comments from other participants and 18% did not see any benefit in contributing. Also two participants mentioned that their lack of participation was due to technical reasons.
Some of the comments demonstrate that the participants have a **rather critical opinion about online discussions**:
- "It was a bit generic, to be honest I feel that online responses are often over calculated, fake and unnatural."
- "Well, it's absolutely not my habit to use any online social platforms. I think online discussion platforms invite people to exaggerate. People like to present themselves too much, so I don't like it. So it's not your fault."
- "Honestly I prefer talking to people in real life - but it might be a nice tool to evaluate design proposals from start ups which contribute to more sustainable products."

Others also demonstrated that **technical or timing issues** prevented the students to participate:
- "Unfortunately, I didn't get your e-mails. I would have loved to take part."
- "Just registered a week before the summer school started."

2.3.6   *Putting the results into perspective*

The results of the surveys have demonstrated that the large majority of participants of the Sustainable Summer School had **never or few times participated in online discussions before**. Against this background, it is less surprising that engagement levels for the online discussions were not higher. Also the fact that the discussion was communicated as **purely on a voluntary basis** and was linked to the topics, but not to a specific course of the summer school can be seen as reasons for lower levels of participation. The

live meeting with the students of the summer school revealed that some are very **critical towards expressing an opinion online** at all. The general fear of seeing personal content online can be seen in the concern of several of the participants that group pictures taken during the session could be published at all. Talks to participants of this and the other potential test beds showed that in general, people working in sustainability could be seen as relatively critical towards online discussions and displaying opinions in a public online environment. Answers showed that this is often associated with fears of what might happen with the content, that the quality might not be high enough or that they simply didn't see a use to spend time on it, instead of seeing the opportunities connected to jointly discussing and creating collective intelligence.

On the other side, **the feedback from the participants who joined the debate was very positive**, especially taking into account that they didn't have much prior experience in online discussions. Also, the **quality of their contributions was very high**, as was stated by participants, harvesters and external experts that looked at the debate. It can be seen as a success that **comments were answered and taken forward by other users** and that references between posts of earlier and later stages of the discussion were made. Also, all participants added additional external sources to the debate, which increased the quality and provided additional inputs for solutions to sustainability challenges.

2.3.7   *Main lessons learnt from the test with Assembl*

This section describes the **specific lessons learnt** from the test run with Assembl and the 7th Sustainable Summer School as well as the **overall lessons learnt** from working with communities with a tool like Assembl.

Specific lessons learnt

The harvesters encountered a number of **small technical difficulties** and some aspects on the structure and logic of the tool, where they had ideas for improvement, but none of them affected the general outline and idea of Assembl. The overall feedback from both harvesters and active users of Assembl was very positive in terms of usability and how the tool improved the nature of the debate. Also, almost all features of the tool – the table of ideas, the idea panel, the synthesis and the notifications – received positive feedback. The comments also showed that many of the features that were considered as very useful and increasing the quality are unique to Assembl.

One key aspect for improvement was related to **visual aspects**: Giving participants and harvesters the chance to add pictures and embed videos with thumbnails would improve the overall visual attractiveness of Assembl. A second key aspect for improvement mentioned by both harvesters and participants would be a mobile version of the tool. The case of just being able to add profile pictures by connecting Assembl to a social media or e-mail account showed again, that the user group of this test (many Germans, all from the field of sustainability) is rather critical in using US-owned online platforms and even more in linking them to different accounts.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **21** of **64**

Overall lessons learnt

As described in section 2.3.1, different potential testing communities were approached by the CSCP to evaluate their interest in working with Assembl. Based on their feedback, some general information on a **successful test setting** was generated.

The starting point for communities to use Collective Intelligence Tools, such as Assembl, is that they **need to meet the following requirements:**

- Have a complex question/challenge to discuss, which has so far not been solved to a satisfying extent by anyone, and where several people can help providing thoughts that lead to a solution;
- Have to be convinced that a dialogue with peers brings the discussion forward;
- Have to see a direct benefit for themselves or their organizations from engaging in the discussion;
- Have a relatively low share of spamers or destructive participants in the debate.

Also, it turned out that it is not a given fact that communities are **willing to use online tools**. They have to:

- Be willing to share their knowledge with peers (they won't if they feel the information is competitive or sensitive);
- Be willing to spend time on online forums in general, many people in the sustainability area are not very affine to technology, and would therefore not voluntarily spend their time discussing online;
- Have no easier ways of exchanging ideas and working together, such as regular face to face meetings;
- Have no well established structures of interacting with their peers deeply tied into their working realities, such as publishing research papers, presenting new insights on conferences or sending newsletters.

Additionally, the communities would also need to fulfil the following **specific criteria:**

- Do they also want to bring discussions to an online forum?
- Do they already work with another tool? Many use Facebook, LinkedIn groups, newsletters, few use Google docs or pads to write content together and mailing list or other discussion forums to interact;
- If they are already using other tools, they will be very hesitant to change as it means migrating all of their members, which poses the risk of loosing some along the way.

Finally, a critical factor for using a new online tool is also, that **someone has to be entitled to take a decision** on moving to a new tool:

- Community managers also don't have a detailed understanding of what the different tools can do, but rather take what others are using and what was advertised to them;
- Often community managers can't decide alone, but need agreement from the group;
- Communities often want something that can be everything at once, a website, a voting tool, a place where you can attach documents, or at least a tool that can be easily integrated into their existing website or discussion forum (if those are not open source, this is hard to do);
- Sometimes the look of the tool can be more important than the functionality to the decision takers.

Based on the discussions with the different communities, the following **success factors** for applying Assmebl have been identified:

Aspect	Success factor
The goal	Discuss a rather complex issue, if possible with a defined outcome
Timeframe	Either a limited time frame or an issue where new content is evolving relatively quickly (new research topic)

The participants	Distributed in different places, so that face to face meetings are not really possible and at least a bit open to technological tools
Where is the community	Community is either not yet using an online tool or is unhappy with the functions offered by the one it is using
Motivation of community	Need to see a benefit in sharing information with others
Motivation of community manager	Need to see the benefits of the tool compared to existing ways of engagement and needs to be able to take a decision

3. Annexes

3.1 Screenshots of one Argument Map created with LiteMap and posted on Utopia.de
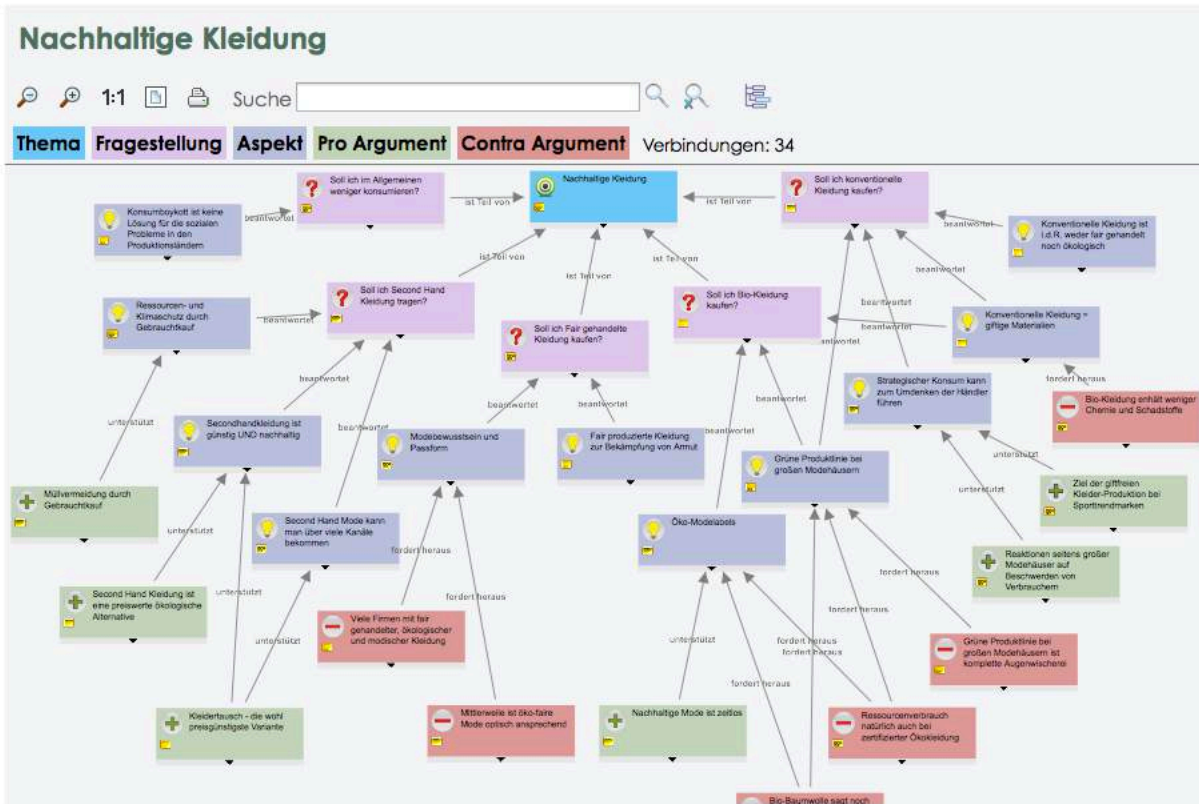
Wie nutze ich die Argument Map?

Die Argument Map beschreibt eine Themenkomplex (Kreis) mit seinen verschiedenen Fragestellungen (Fragezeichen), Aspekten (Glühbirnen) und Pro- (Pluszeichen) und Contra-Argumenten (Minuszeichen). Mithilfe der Lupen-Buttons oder per Scrollen auf dem Hintergrund kann die Ansicht der Karte vergrößert oder verkleinert werden. Fährt man mit der Maus über das gelbe Textsymbol in jedem Kästchen, erscheint die detailliertere Beschreibung zur Überschrift. Fährt man mit der Maus über das kleine schwarze Dreieck unter den Kästchen, kann man unter „Item entdecken" neben der Beschreibung auch den Originaltext der Utopia-Website, der dem Argument zugrunde liegt sehen, oder über die URL wieder zu der Originaldiskussion gelangen. Außerdem besteht hier die Möglichkeit, zu erfahren, welche Sammler an der Karte mitgebaut

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **24** of **64**

3.2 Users' Feedback of the Argument Maps created with LiteMap and posted on Utopia

Overview
Timeframe: 7th July – 31st August
Geographic coverage: Germany
Number of participants: 27

1. General Information
1.1 Gender
      Answered: 24
      Female: 66, 67%
      Male: 33, 33%
      Skipped: 3

1.2 Age (open-ended question)
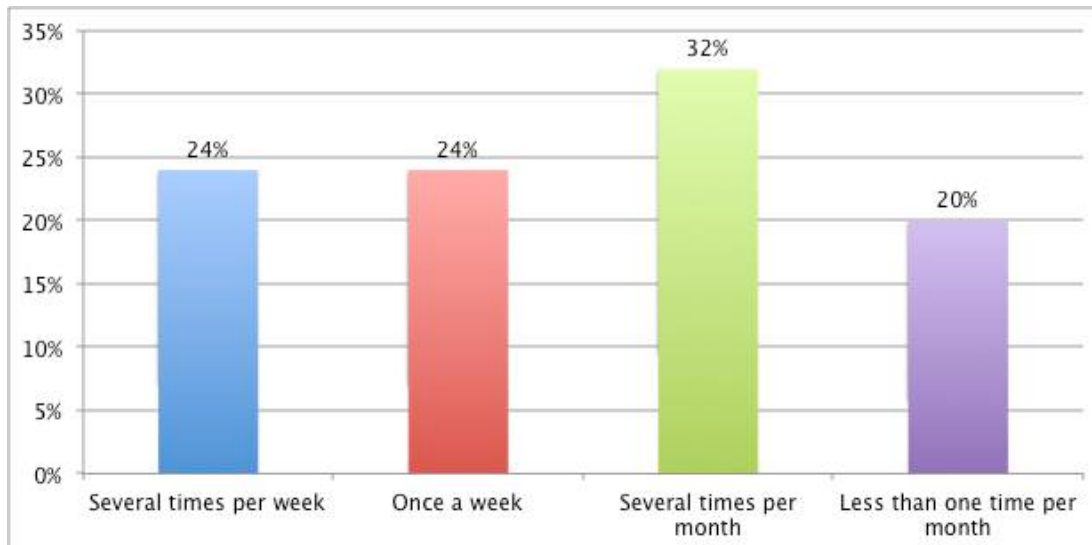   Answered: 24
      Skipped: 3

2. General information on Utopia
2.1 How often do you visit the Utopia Website?
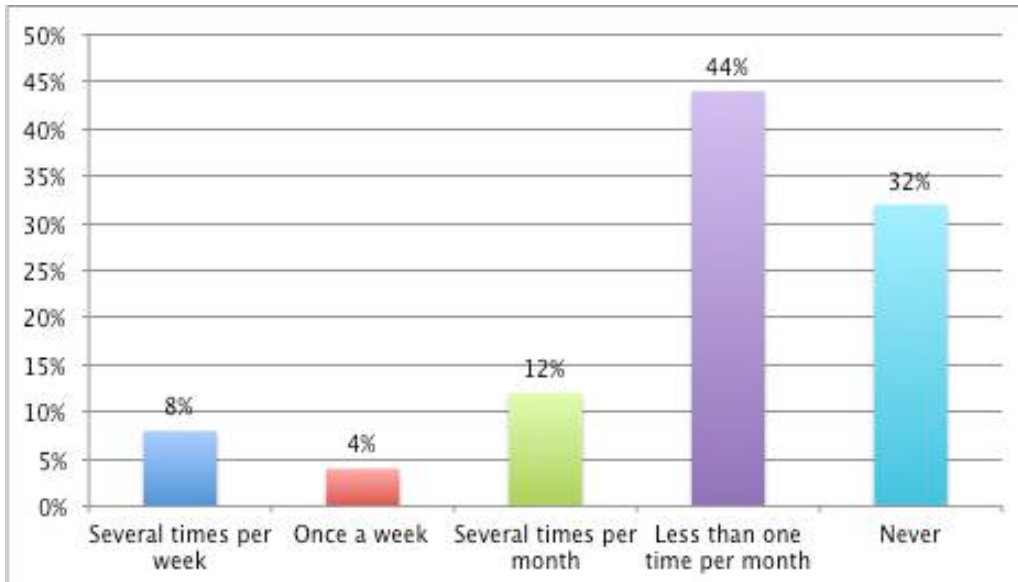
      Answered: 25
      Skipped: 2

2.2 How often do you participate in discussions of Utopia?
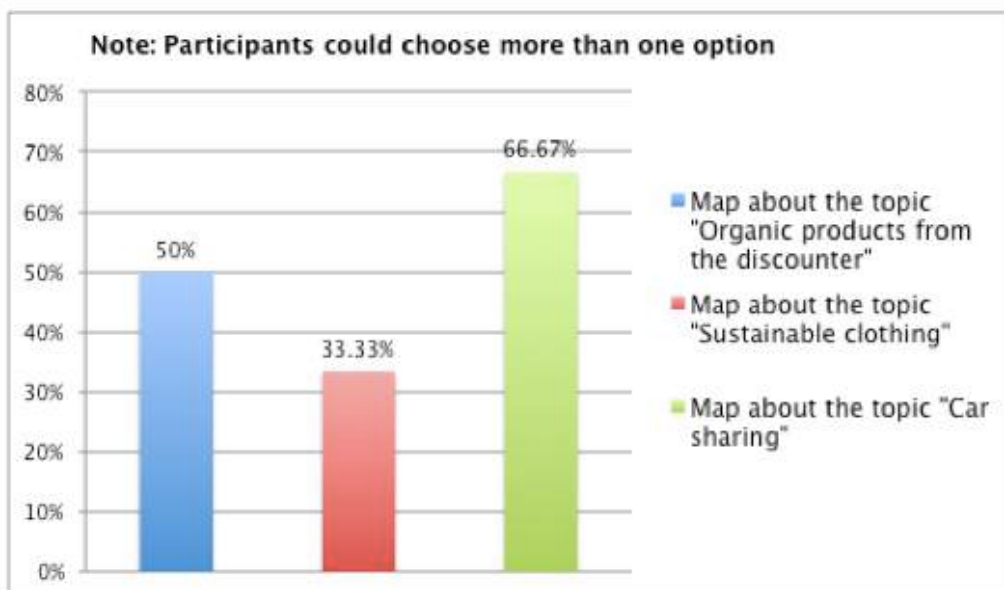
Answered: 25

Skipped: 2

3. Argument Map – Questions about perceived usefulness
3.1 At which map did you have a look?
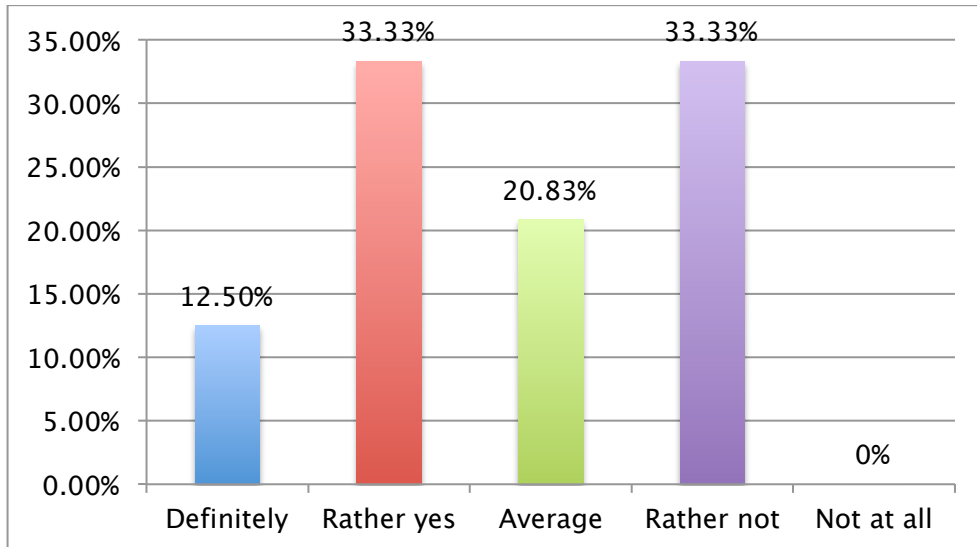
Answered: 6

Skipped: 21

3.2 Do you think that the software helps to organize the discussion efficiently?
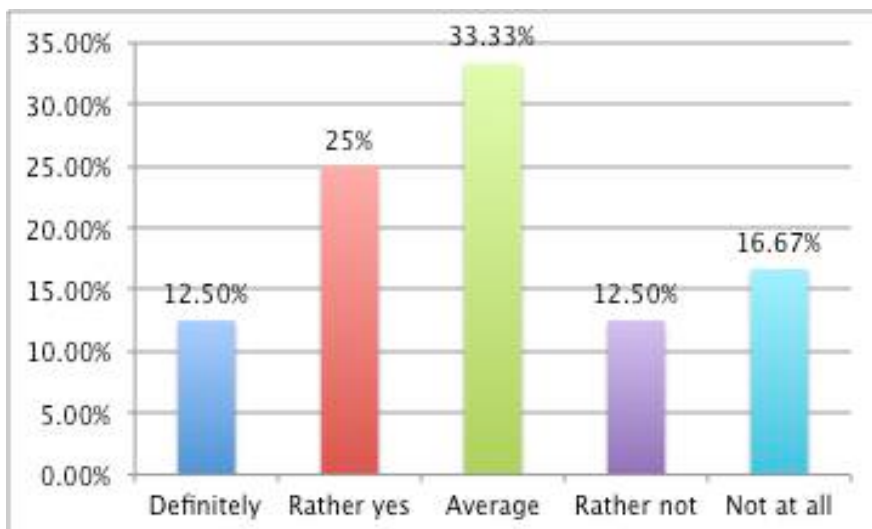
Answered: 24

Skipped: 3

Additional comments

The tool certainly has great potential. Generally, graphical improvements would be an advantage. Furthermore, it is a bit confusing and the connections are not really clear. When you have topics that are more complex, the "Argument Map" is getting confusing quite fast and it is difficult to both recognize and understand connections. Moreover, there were difficulties with the handling of the tool but the general idea was perceived as a great one. Others found that the "Argument Map" was all in all very confusing. Also when the complexity increases the perception was that the tool comes to its limits. Moreover, a user thought that there was no possibility to contribute to the discussion or to participate in it. Also there wasn't recognizable any weighting of the arguments.

3.3 Do you think that the software has helped you to understand clearly the course of online discussions?

Answered: 24

Skipped: 3

Additional comments

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **27** of **64**

The users said that the software is still a bit confusing and the learning curve is quite high. Moreover, there aren't presented new evidences and it was mentioned that one user would work with completely different starting points and ideas as a basis. Concerning the structure, it was mentioned that it was a bit strange: A question would be followed by an idea (e.g. "Shell I buy organic clothing?" followed by the idea "Green Product Line…"). The user asked if there shouldn't be an answer after a question (e.g. "Shell I buy organic clothing?" → "Yes" → "Argument 1…"). Another user said that the software would be okay for students but not for elder people. Furthermore, the writing was illegible small or just several parts of the map could be seen, so the process of the discussion was unclear.

3.4 Do you think that it is easy to deal with the programme?

Answered: 24

Skipped: 3
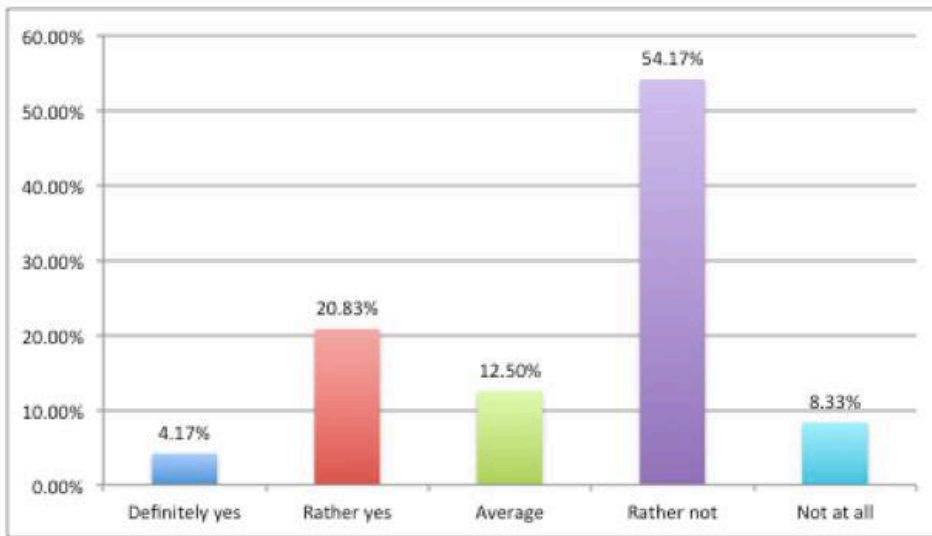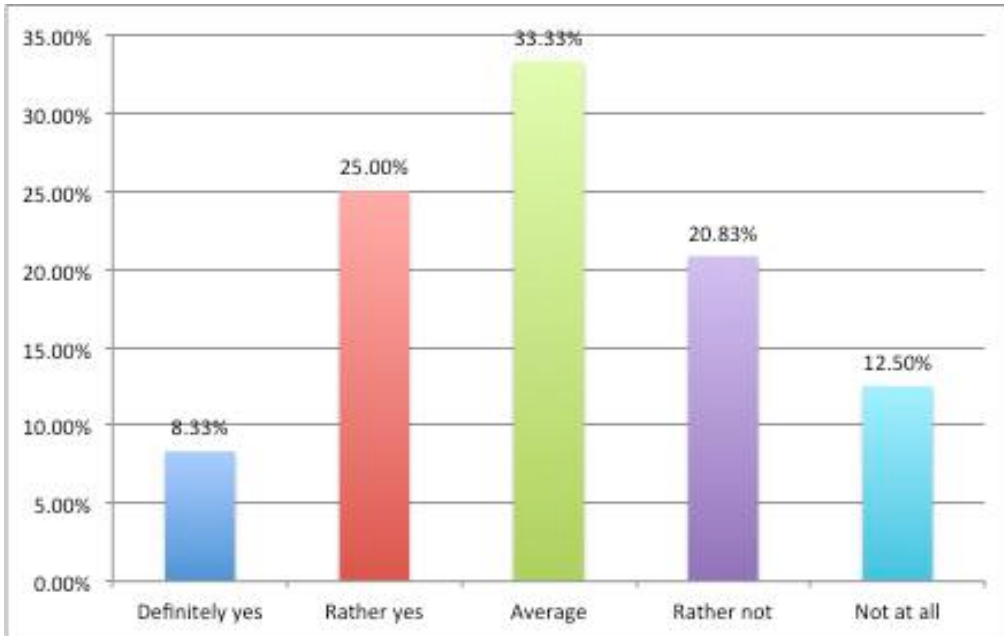

Additional comments

The users said that actually, the symbols are easy but at first you have to learn that in order to see all icons you have to zoom in. Moreover, the zoom function should work as a label and should not be zooming to any size as a predefined tool. The small textual comments aren't necessary because they contain the same content as the text-box. Furthermore, the interaction and controlling of the "Argument Map" is not very innovative and also not very usable. Sometimes it is very difficult to navigate inside the map by using a classical input device (mouse). In the original size the writing was illegible, and when the zoom was applied, the map often disappeared. A list view was not possible at all.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **28** of **64**

4. Argument Map – Questions about perceived usefulness: Continuation

4.1 Do you think that it was easy both the navigation and the use of the "Argument Map"?

Answered: 24

Skipped: 3

Additional comments

The users wrote that the yellow icons, which allow popping up the text of an argument, could only be recognized when you have already zoomed into the picture. Furthermore in their opinion, the arrow under the image, which leads to the details of the items, was too small. The arrows and thoughts were not that comprehensible and it took quite a lot of time to scroll through the argument map. There were noted many delays and the buttons on the "Argument Map" were too small. When the zoom was applied, the map always disappeared.

**4.2 Did you like the use of the "Argument Map"?**
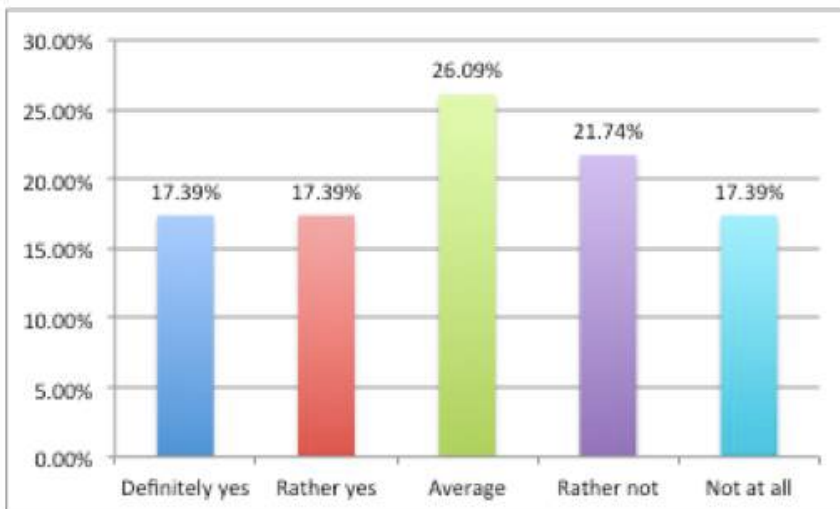
Additional comments

One user said that the software was unmanageable and that generally, it would be easier to work with a structured list of bullet points or Pro-/ Con arguments and their consequences. However, another user thought that the "Argument Map" was very helpful.

4.3 Do you think that you will use the "Argument Map" again?

   Answered: 24

     Skipped: 3
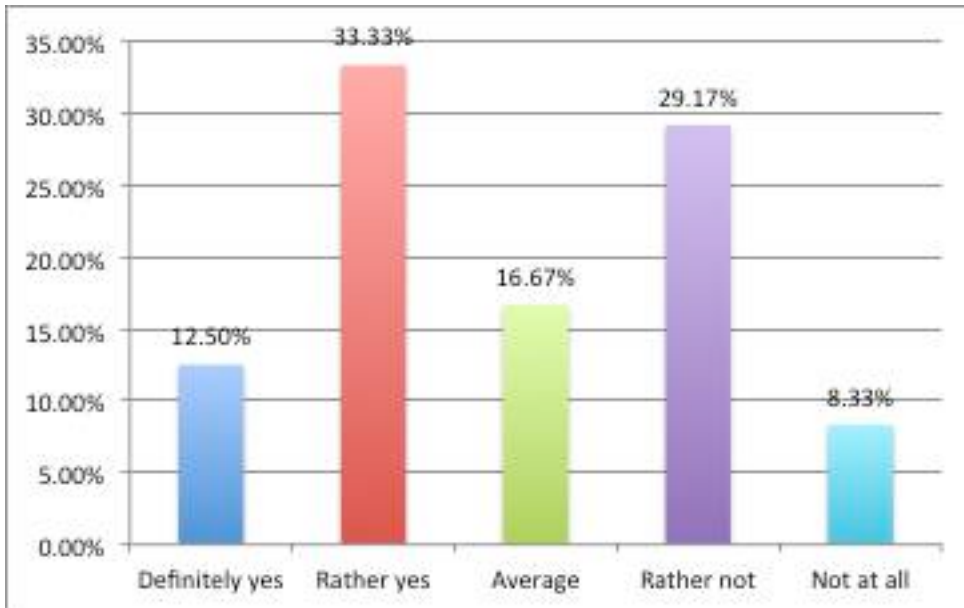
Additional comments

One user said that the "Argument Map" was unstructured and unhelpful and that it was even annoying because the conclusions that followed the ideas and approaches did not make sense for him/her. Another user whereas likes the idea although he/she is not satisfied with the realization of the tool. Moreover there was someone who wanted to forward the idea of the tool to fair trade shop staff.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ◼ **August 2015** ◼ **CSCP**

The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **30** of **64**

5. User-friendliness of the tool

5.1 Did the view and the reconnaissance of the "Argument Map" help you to understand the topic as a chronologically arranged text discussion?

Answered: 25
Skipped: 2
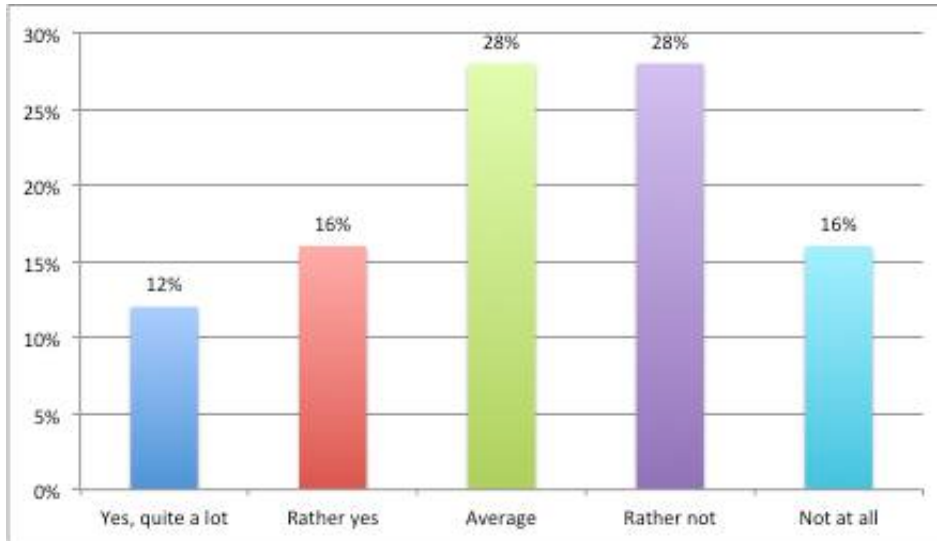
Additional comments

It was mentioned that it would be useful to have the possibility to read the flash cards linear or to print them. Correlations between the items were not apparent in most of the cases. For one user it was not possible to open the map a second time and it was not possible neither to drag it back and forth. Besides, a chronological sorting was not recognizable.

5.2 Did the view and exploration of the "Argument Map" help you to get a better understanding for the presented topic?
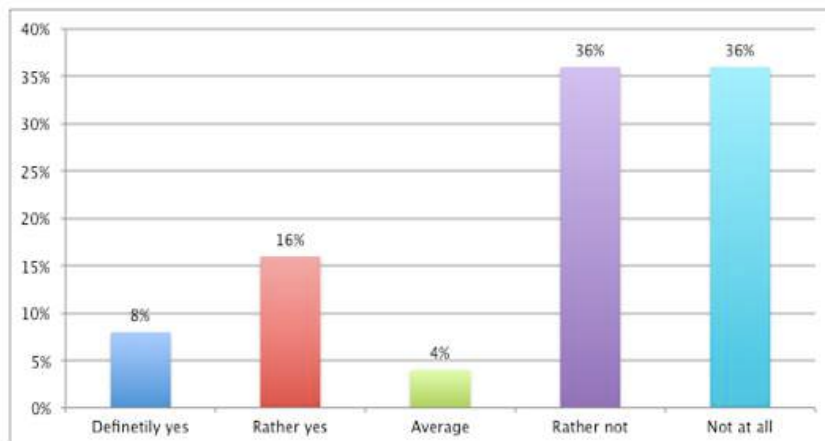
Answered: 25
Skipped: 2
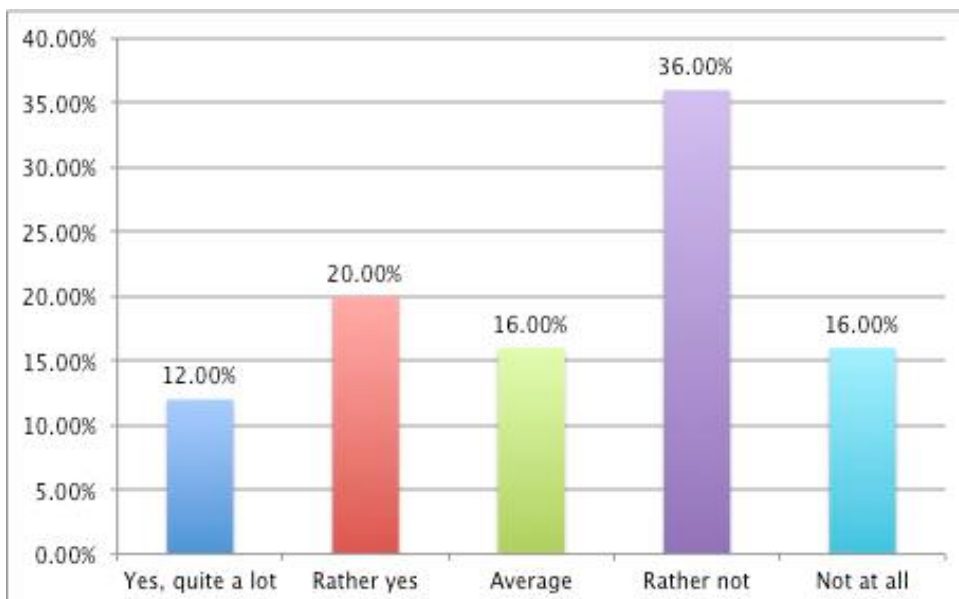
Additional comments

A user who had a long personal experience in Car Sharing said that he/she would have been able to create a more complex "Argument Map" extemporaneously.

5.3 Did the view of the "Argument Map" help you to generate more/better contributions?

      Answered: 25
      Skipped: 2

5.4 If you would like to describe more in detail in what way the "Argument Map" was helpful or not, you can give us further details here.

      Answered: 8
      Skipped: 19

It was mentioned that the tool was still too new. It should be examined more extensively and it would be best to work with topic that is less known. Besides, the thoughts that were presented in the "Argument Map" did not match to the thoughts of a user who then concluded that it was difficult to create better posts as long as the personal ideas did not fit with the named aspects. The poor usability was a reason for another user to call the "Argument Map" as not very helpful for him/her. Furthermore it was said that an innovative tool should also offer innovative navigation options. Also at this point it was mentioned that the tool was very confusing. However, for another user the "Argument Map" was helpful because it generated new arguments in the context of "clean" clothes. Also there were used other aspects as the common ones. Again, a user criticised that he/she did not see any way to generate his/her own posts within the argument map. Other users shared this statement.

If you would like to, you can add an additional feedback about the use of the Maps here.

      Answered: 7
      Skipped: 20

The map should be searchable in order to see all the arguments, which already have been mentioned. Then the user would benefit more from the tool. It would be good if you could precisely link to a particular argument that had already been well processed and linked within the "Argument Map". Besides, the choice of the colour was not clear. One user criticised that arrows "swam around in a messy way" and that they were not clearly legible for the reason of being to small. However, in his/her opinion the tool was a great idea. Another user had difficulties with the contra arguments, which could not be identified clearly by him/her. Another opinion was that the navigation within the "Argument Map" was so stressful that it didn't make any sense to use it at all. Furthermore, it was generally said that the "Argument Map" was a normal mind map, just a little bit more clearly structured. Besides, it was said that the tool was a good idea but that it was not really ground-breaking. For another user the presentation was

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188
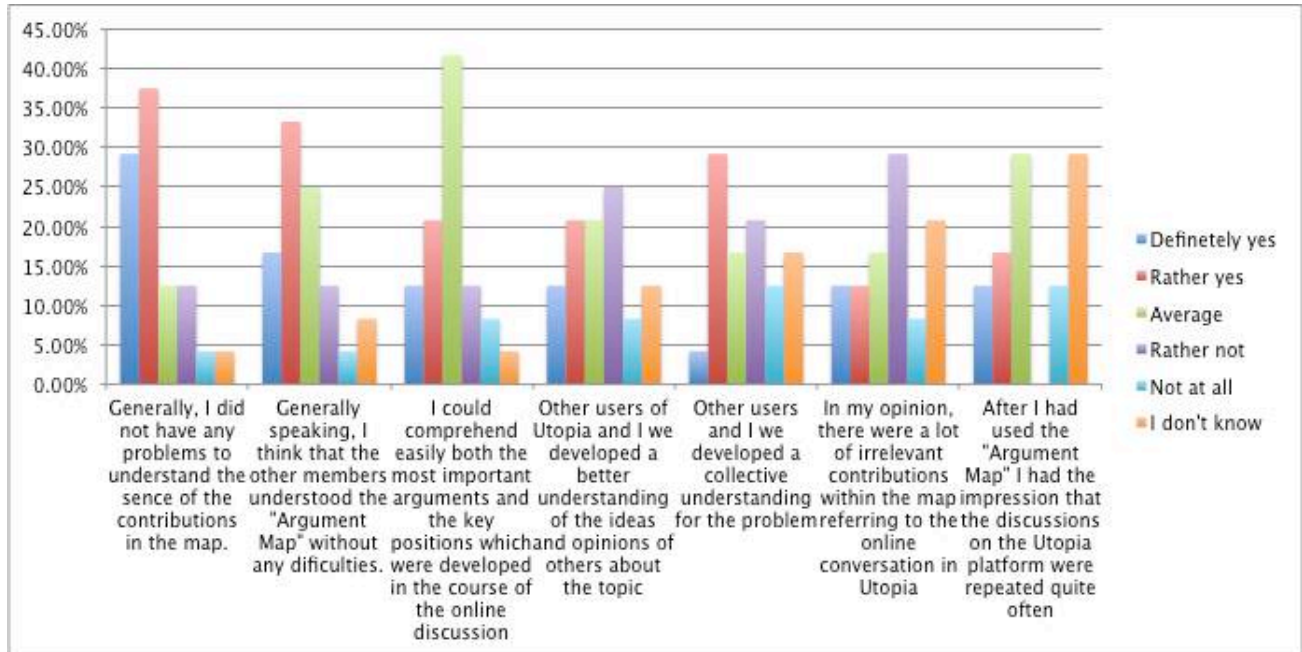
Page **32** of **64**

confusing and he/her did not understand the connection with the underlying Websites/ articles. In general, the idea was not perceived as a bad idea, but nevertheless it was said that there was still need for improvement.

6. Understanding
6.1 Understanding of the "Argument Map"
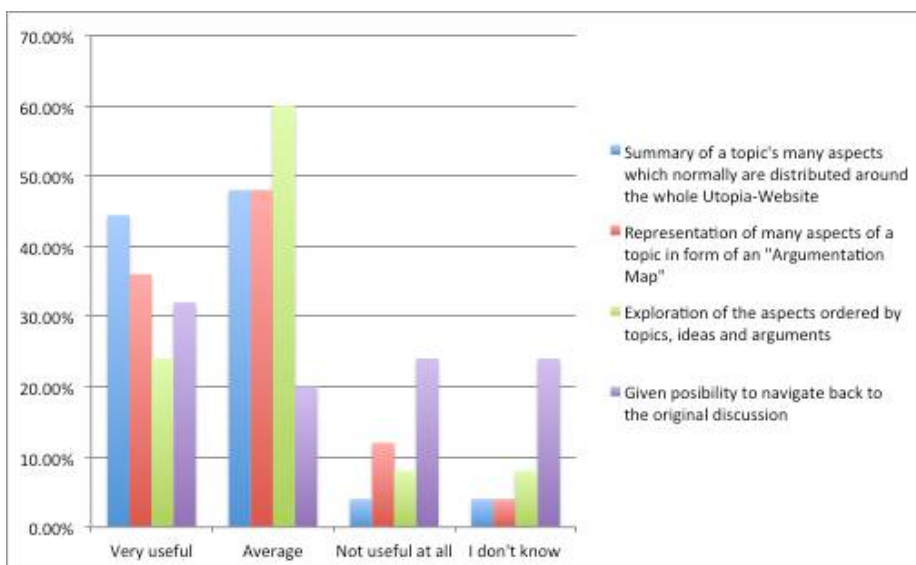
Answered: 24

Skipped: 3

7. Representation
7.1 How useful were the functions of the "Argument Map" for you?

Answered: 25

Skipped: 2
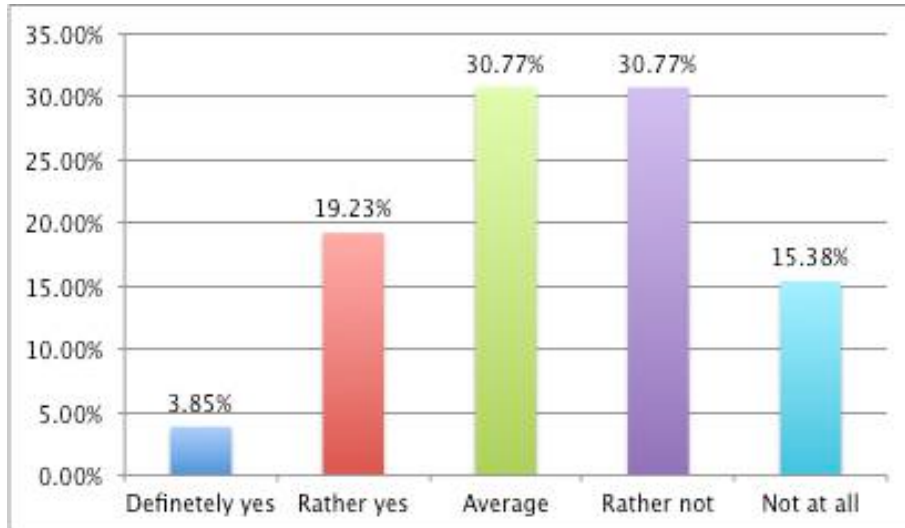

8. Usage of the tool
8.1 Was it easy for you to
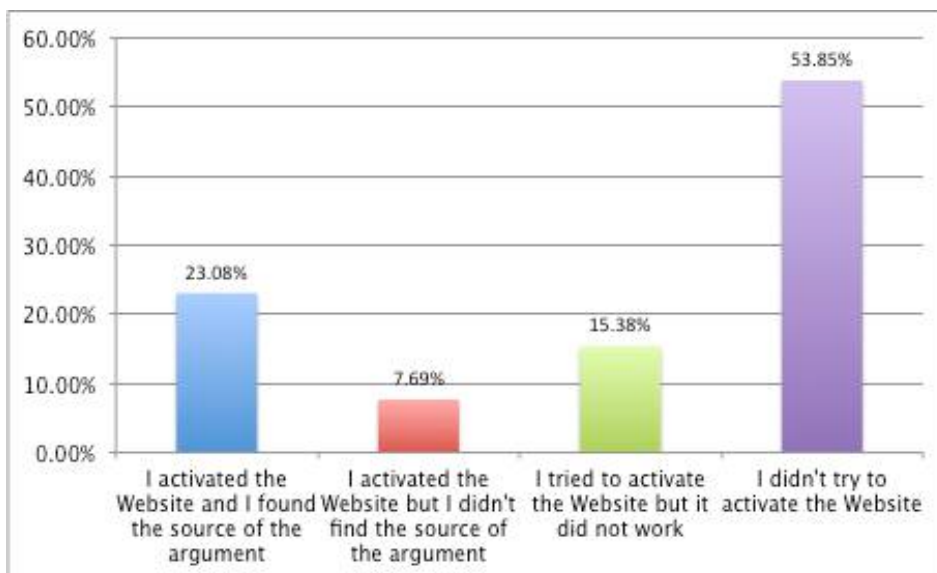
navigate within the map?

Answered: 26

Skipped: 1

8.2 Did you activate one of the given sources?
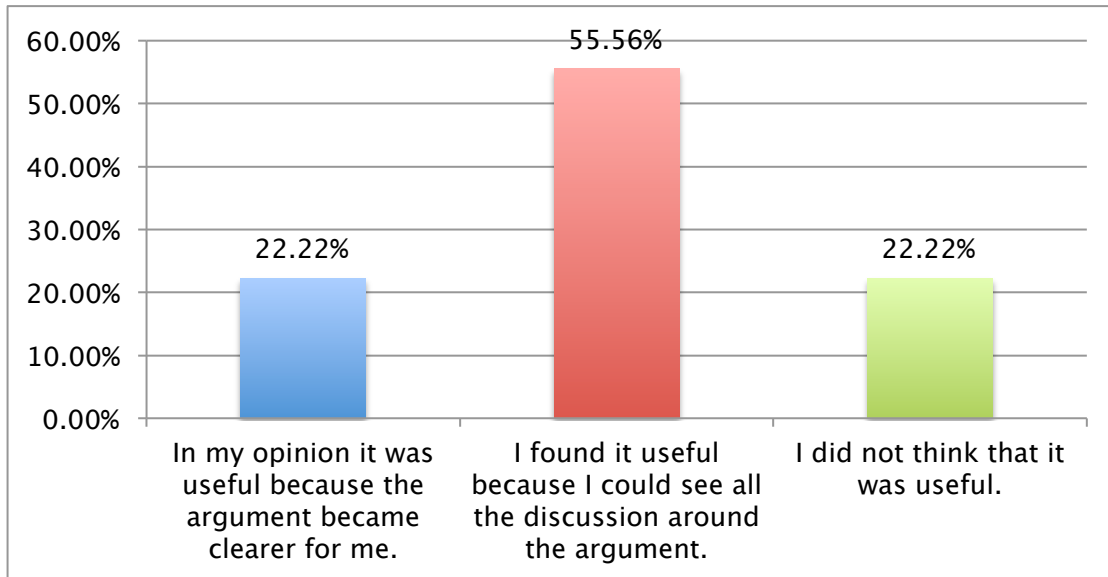
Answered: 26

Skipped: 1

8.2.1 In case if you chose answer number 1…

Answered: 9
Skipped: 18

9. Further comments

9.1 Here you can give more detailed information about what was useful and what was not so useful for you while navigating the "Argument Map".

For the users who participated in the survey, the appearance was not very appropriate. Besides, the magnifier was totally bad (it would be better to have a box which could be used in order to raise and to zoom in). Moreover, not everything within the "Argument Map" could be seen because of the text, which was too small. Some arguments had nothing to do with the topic and other arguments were not comprehensible for some users. The meaning of the Map was unclear and the users were confused because of too many levels within the "Argument Map".

9.2 Do you have any ideas or suggestions how the tool still could be improved?

One user said that it would be better to hire a good graphic designer. Furthermore, it was mentioned that it would be helpful to create a better zoom capability and to not repeat the main text argument of an article or Website within the arguments of the Map. Moreover, the arrows were confusing and the connections between the topics were presented one-sided (a lot of text boxes should lead to more conclusions – not just to one). Other fonts, sizes and colours were recommended and there could be used framing shapes to highlight the hierarchies clearer. Furthermore, a better/clearer structure concerning the Feedback-Survey and especially the "Argument Map" would be great. The levels could be better-structured side by side, as it is done in extracts of maps.

9.3 Would you like to give us any further response?

One user mentioned that perhaps he/she would give different answers to some of the survey questions after working with the tool for a long time. Another user wondered why the real issue was at the top of the "Argument Map" and why all arrows led there. In contrast, he/she would have expected that the arrows should have come from the top. As a consequence, the "Argument Map" was built completely wrong for the user. In his/her opinion it would be better to build the map from the top to the bottom of from the right to the left. In conclusion, he/she would put the real issue/ topic elsewhere in the map to be able to read and recognize it in a better way.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **35** of **64**

3.3   Invitation email sent out to the participants of the 7th Sustainable Summer School

Dear participants of the 7th Sustainable Summer School,

We are very excited that you registered for the Sustainable Summer School and cannot wait to meet you in person in Jüchen in late August.
This year, we are testing a new process for you to start getting familiar with the topic of the summer school, work with some of the reading material and get to know your fellow participants before you meet each other in person. We want to give you the opportunity to share with the other participants of the summer school **what you think makes it difficult to live a sustainable lifestyle in your city and together collect ideas for how this could be made easier, using creativity and design**. This will happen on an online platform. The participation is voluntary and just an offer to prepare you for the summer school. It is not a requirement for the summer school.

Rosa, Gustavo, Marion and Mariana from the Collaborating Centre on Sustainable Consumption and Production (CSCP), which is one of the organisers of the summer school, will facilitate this process. We will guide you through the discussion by providing one key question to be discussed each week, add content and ideas, and structure the discussion. We will also prepare a summary of what has been discussed in one week and send it to you.

It would be great if you could spend 15 minutes per week on this discussion. After the discussions are finalized, we will **present the results to all students and professors in an interactive installation** - we will be working on this with our designers, be curious! - on Wednesday night during the Sustainable Summer School.
The **five people that are most actively contributing to the discussion will also receive a sustainable surprise** that evening.

Please join the discussion here, sign up and answer the question of this week:
"When you think about your last week, when did you take decisions that you know were unsustainable and why did you do so?"

We are very excited to learn if you find this process and the tool useful for learning from and interacting with each other. The tool has been already successfully used by some other groups of people to discuss solutions for complex challenges and we would like to understand if this makes your experience with the summer school even better. If you are interested in more details, please have a look at the research project Catalyst.
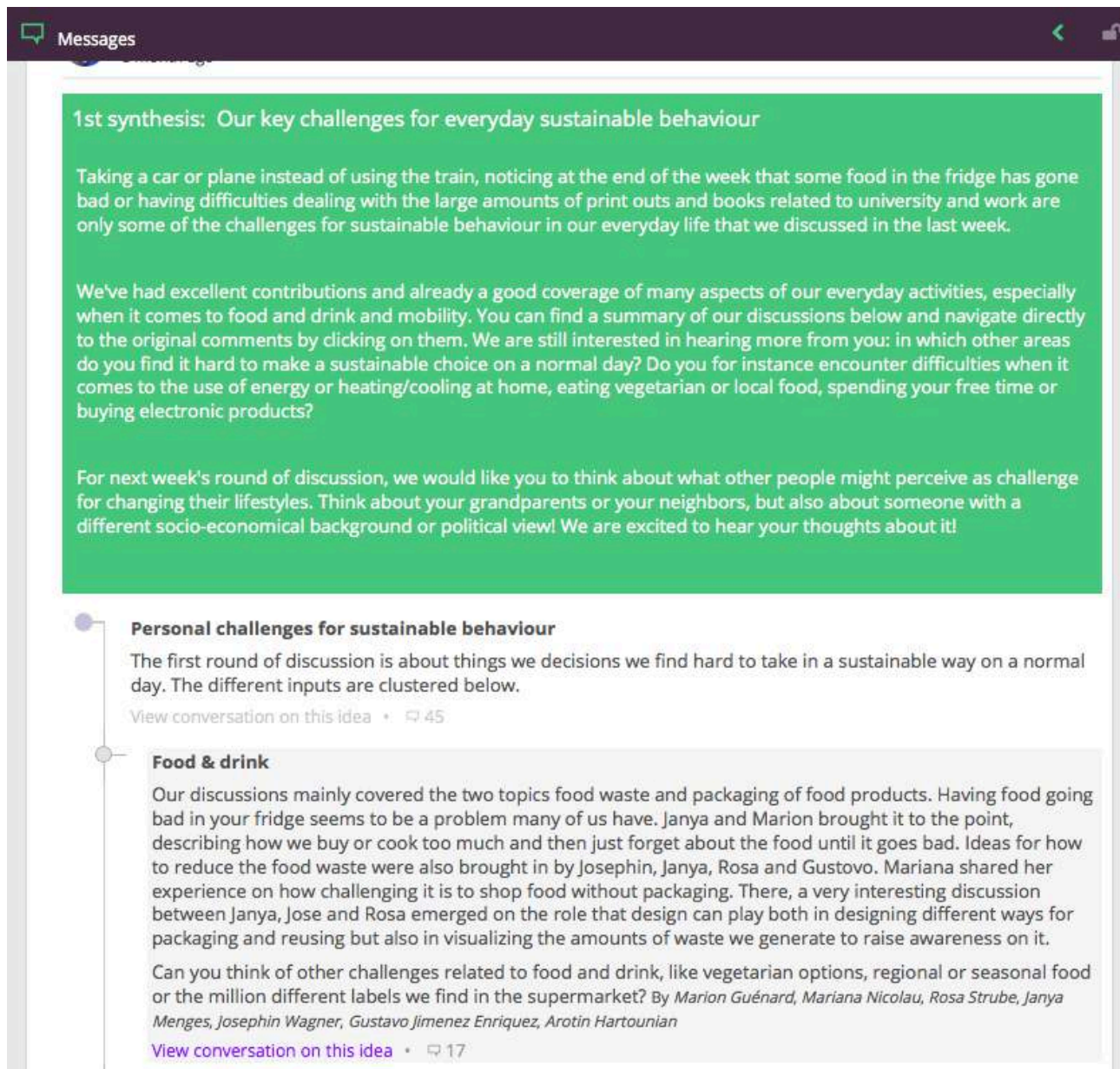

We are looking forward to reading from you!
Please don't hesitate to contact me if you have any questions or difficulties.

Best wishes
Rosa

3.4 Example of synthesis from the online discussion created with Assembl and sent to the participants

1st synthesis: Our key challenges for everyday sustainable behaviour

Taking a car or plane instead of using the train, noticing at the end of the week that some food in the fridge has gone bad or having difficulties dealing with the large amounts of print outs and books related to university and work are only some of the challenges for sustainable behaviour in our everyday life that we discussed in the last week.

We've had excellent contributions and already a good coverage of many aspects of our everyday activities, especially when it comes to food and drink and mobility. You can find a summary of our discussions below and navigate directly to the original comments by clicking on them. We are still interested in hearing more from you: in which other areas do you find it hard to make a sustainable choice on a normal day? Do you for instance encounter difficulties when it comes to the use of energy or heating/cooling at home, eating vegetarian or local food, spending your free time or buying electronic products?

For next week's round of discussion, we would like you to think about what other people might perceive as challenge for changing their lifestyles. Think about your grandparents or your neighbors, but also about someone with a different socio-economical background or political view! We are excited to hear your thoughts about it!

Personal challenges for sustainable behaviour

The first round of discussion is about things we decisions we find hard to take in a sustainable way on a normal day. The different inputs are clustered below.

View conversation on this idea · 🗨 45

Food & drink

Our discussions mainly covered the two topics food waste and packaging of food products. Having food going bad in your fridge seems to be a problem many of us have. Janya and Marion brought it to the point, describing how we buy or cook too much and then just forget about the food until it goes bad. Ideas for how to reduce the food waste were also brought in by Josephin, Janya, Rosa and Gustovo. Mariana shared her experience on how challenging it is to shop food without packaging. There, a very interesting discussion between Janya, Jose and Rosa emerged on the role that design can play both in designing different ways for packaging and reusing but also in visualizing the amounts of waste we generate to raise awareness on it.

Can you think of other challenges related to food and drink, like vegetarian options, regional or seasonal food or the million different labels we find in the supermarket? By *Marion Guénard, Mariana Nicolau, Rosa Strube, Janya Menges, Josephin Wagner, Gustavo Jimenez Enriquez, Arotin Hartounian*

View conversation on this idea · 🗨 17

Housing

So far, we haven't heard any challenges related to housing. Is there anything you find difficult to do in everyday life, like watching your energy consumption, heating or cooling the flat or related to furniture?

View conversation on this idea · ⊟ 0

Other consumption areas and leisure activities

Gustavo has brought up two interesting topics here: On the one hand, where we spend our free time and which environmental impacts these leisure activities have, and on the other hand, which cloths we buy.

We'd like to hear more opinions on sustainable versus unsustainable fashion, buying things second hand, other products you buy like electronics! By *Gustavo Jimenez Enriquez*

View conversation on this idea · ⊟ 2

At the university and at work

Janya and Norbert both gave really good examples on how everyday situations at university or at work force us to have huge amounts of paper that is only needed for a short period of time. Again, both aspects of how this can be avoided in the beginning, and how the paper can be reused or used further in a different context - especially with a design approach - were discussed.

What are your main challenges for sustainable behaviour at university or work?

By *Janya Menges, Norbert Tchouaffé, Rosa Strube, Arotin Hartounian, Marion Guénard, Gustavo Jimenez Enriquez*

View conversation on this idea · ⊟ 10

Changing society and norms

Starting from the discussion on packaging, Jose and Rosa continued to take some of the issues to a higher level. Both agreed that technological innovation alone will not be enough to reach sustainability levels we need, but that behaviour change and a change of values in society have to go along with it.

What is your opinion on this? Do you feel this is a direction that our society is currently going to? Are you familiar with the concept of a rebound effect? By *Rosa Strube, Jose Luis Leon Rubio, Marion Guénard, Gustavo Jimenez Enriquez, Arotin Hartounian, Josephin Wagner, Mariana Nicolau*

View conversation on this idea · ⊟ 13

Challenges that others have for more sustainable behaviours

What are the challenges that others have? How do they differ from ours? How many people are actually aware that we all need to change our lifestyles? These are the new questions we would like to discuss with you during this coming week! We're excited to read your contributions!

View conversation on this idea · ⊟ 28

Useful readings and links

As a reference and source for information we have added the reading material for the summer school under this section.

View conversation on this idea · ☐ 5

Conclusion

Thank you so much to the ones who have already brought in their valuable opinions! For those who haven't participated in the discussion yet, please have a look on what is all going on already and add your thoughts to last week's and this week's question! The more diverse the opinions are, the better we can create a full picture together!

We're looking forward to read from you!

∧ **Read less**

← Reply   Like   ⬆ Share

Type your response here...

Send your reply   Cancel

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**

The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **39** of **64**

3.5   Email sent out to participants of the 7th Sustainable Summer School on content of the webinar and creativity widget

4. Vote for the best ideas

1. **Share your idea** on the discussion platform under the "Sustainable Design Solution Challenge" section by this Friday. You can find it here. It can be just a short description, an initial idea or a more developed one.
2. Interact with others on the platform and **help improving the idea**s by commenting on them.
3. We want to pick the best ideas, so you will have the chance to vote on them in two ways: The first is to **"like" them on the discussion platform** – just like on facebook. So the earlier an idea is online, the higher are chances to receive many likes by Friday.
4. Finally, we will present the outcomes of the discussion during the Sustainable Summer School in Jüchen on the evening of September 2. We will present them briefly, and if it was your idea and you'd like to add to it, you can do so. Everyone will be able **to vote on all ideas live.** The ideas with most likes and votes will win the coaching.

Which ideas for design solutions, that help making our everyday choices more sustainable do you have? Please share!

Upgrading... piece by piece: Cellphones are replaced every 15 months on average. Laptops are replaced on a similarly short timeline. Often though a few pieces can be changed out to upgrade the technology to something comparable, if not better, than what is being sold on the market.

Are there other examples of items that could be upgraded rather than replaced? How do you think people could be convinced to upgrade?

Which ideas for design solutions, that help making our everyday choices more sustainable do you have? Please share!

Local food: "Food feet, not food miles". Local production and consumption initiatives include creating community gardens, setting up proximity distribution channels or replacing ornamental tree plantings with fruit or nut trees to grow food.

What other ways can be developed in order to promote localized food channels?

Draw a new card

Get inspired!

If you need some additional inspiration for a Sustainable Design Solution, try the **creativity session**. You find it on the top of your browser when you click on the Sustainable Design Solution Challenge.

When you click on the creativity session, you see questions like this one, and can go through several ones until you are inspired to add a comment. We will sort these ideas into the table of content, where you can also vote on them.

Take part in the challenge
and post your idea on the discussion platform

Take part in the challenge
and post your idea on the discussion platform
http://discussions.bluenove.com/7sss
by this Friday!

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research,
technological development and demonstration under grant agreement n°6611188
Page **42** of **64**

3.6 Detailed results of the survey completed by harvesters of the Assembl test

Answered: 4

1. Respondents Demographics

Gender: 50% Male/ 50% Female

Average age: 29,5

2. General Information

2.1 How much time on a weekly basis did you spend working with Assembl?
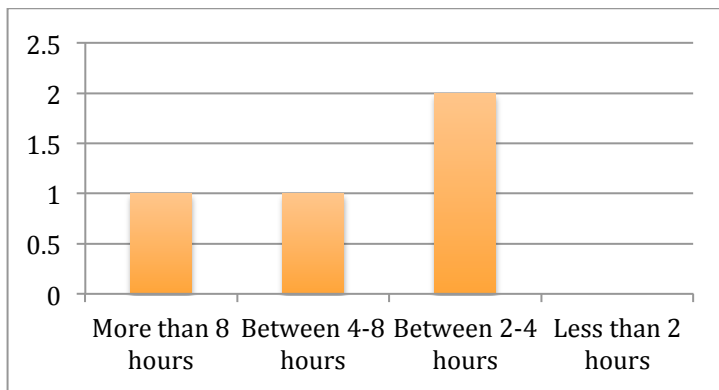
2.2 Which harvesting features provided by Assembl did you work with?
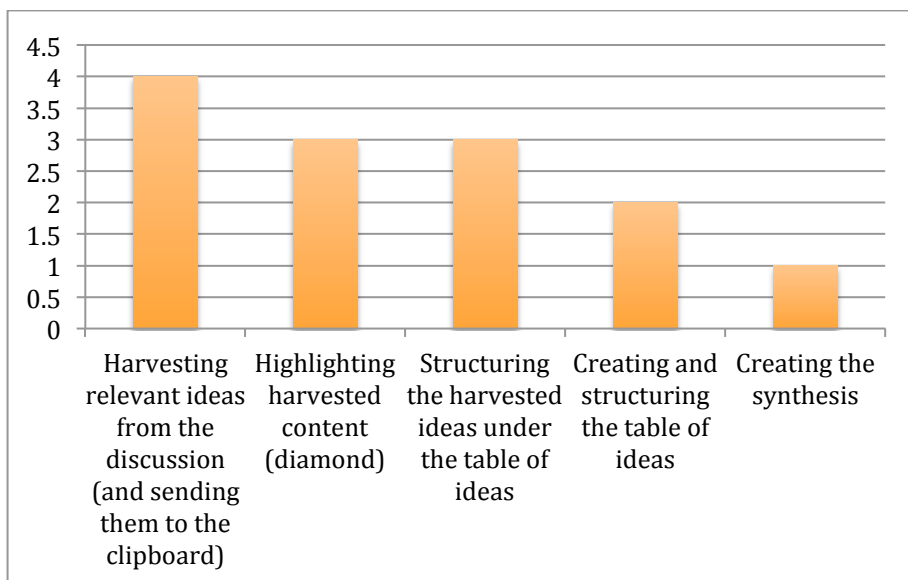
2. Understanding and Perceived Usefulness of Assembl

2.1 From the view of a harvester, how useful did you perceive Assembl in general?
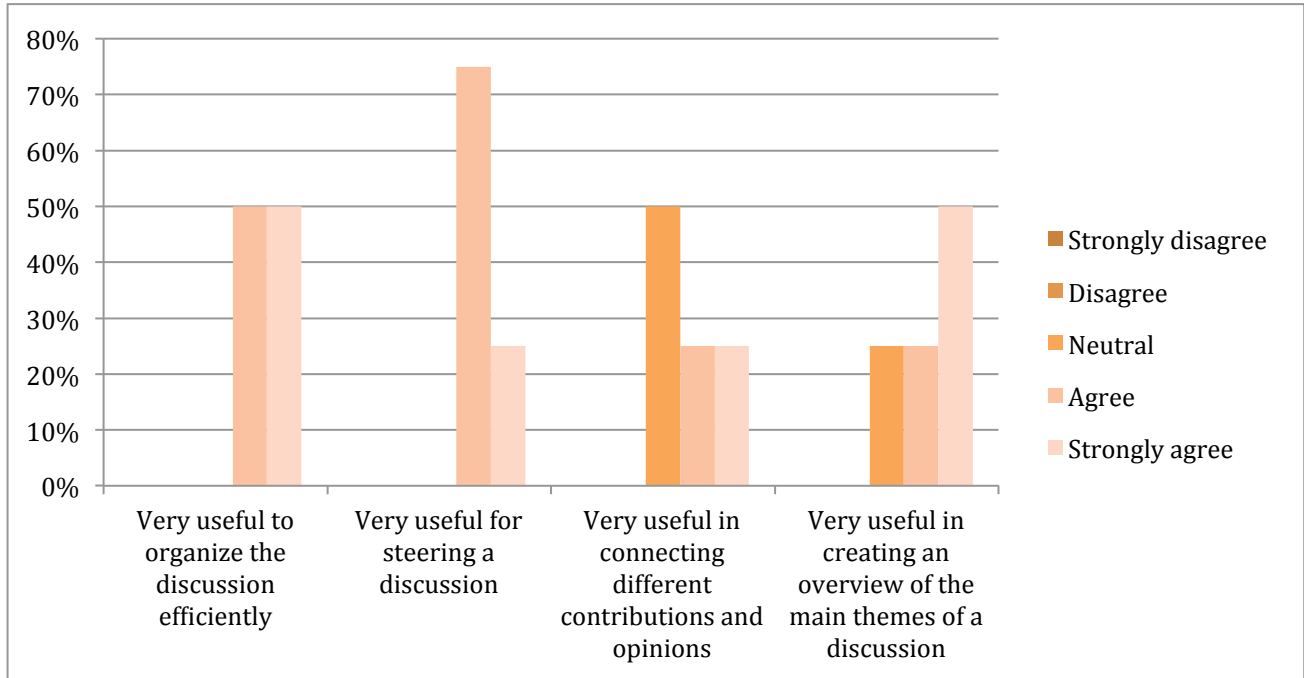
Comment Section:

Assembl is a very useful tool in structuring and making it easy to follow a discussion.
I found it particularly useful for connecting people that otherwise wouldn't have the chance to meet and discuss, e.g. let's say citizens of a city, or people from different parts of the world.
For leading a discussion on a complex topic, I found assemble very useful. It provides many features that I was missing when working with other tools and trying to connect different messages or structuring a debate. Also, the options provided by creating a table of ideas are a great help for making a complex topic manageable and easy to understand.

2.2 How easy was to use Assembl in general?

Chart legend: Strongly disagree, Disagree, Neutral, Agree, Strongly agree. Categories: "It was very easy to use Assembl", "The structure of the tool was easy to grasp", "Learning to use it did not take long", "Navigation through the tool was easy", "The graphic of the tool was pleasing in appearance", "The terminology used was easy to learn and understand". Y-axis: 0% to 120%.
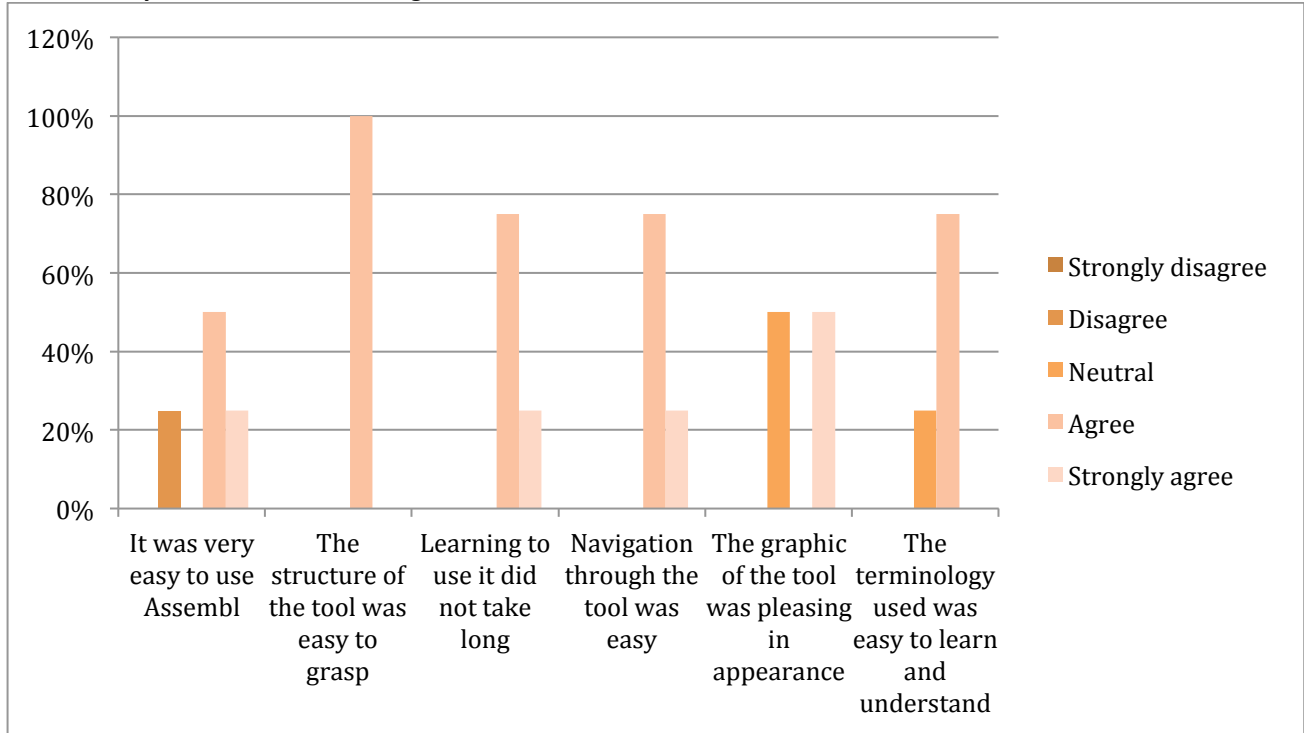
Comment Section:

I found Assembl very user friendly. In the beginning it was a little bit hard to navigate through the site, however after a while of using it, the site became more familiar. In terms of graphics, it is very pleasing, but of course the use of more colors would be better. Maybe it is a good idea to provide explanation for all the terminilogical words used.

Very easy to use may be a strong statement, but it wasn't difficult. Maybe because it was my first contact with a discussion platform of this kind (all my previous experiences were with platforms like blogs) and on the other hand I was using it already as a hasverter, it took me some time to understand for example what harvesting means and the purpose of it. It would be nice if the graphic of the tool were more visually appealing – it was pretty much text-based and with limited use of videos and no use of photos or images. Especially for an audience of designers, I would imagine would it more pleasant with more visuals.

It was relatively easy to learn how to use assembl, even though I was a bit overwhelmed by all the features in the very beginning. After using it a few times and getting used to it, it was then very straight forward and easy. I cannot think of a way of making a better discussion platform for complex discussions with many people. The fact that it appears complex in the beginning is related to the features which are in the end needed to make it work.

3. Harvesting
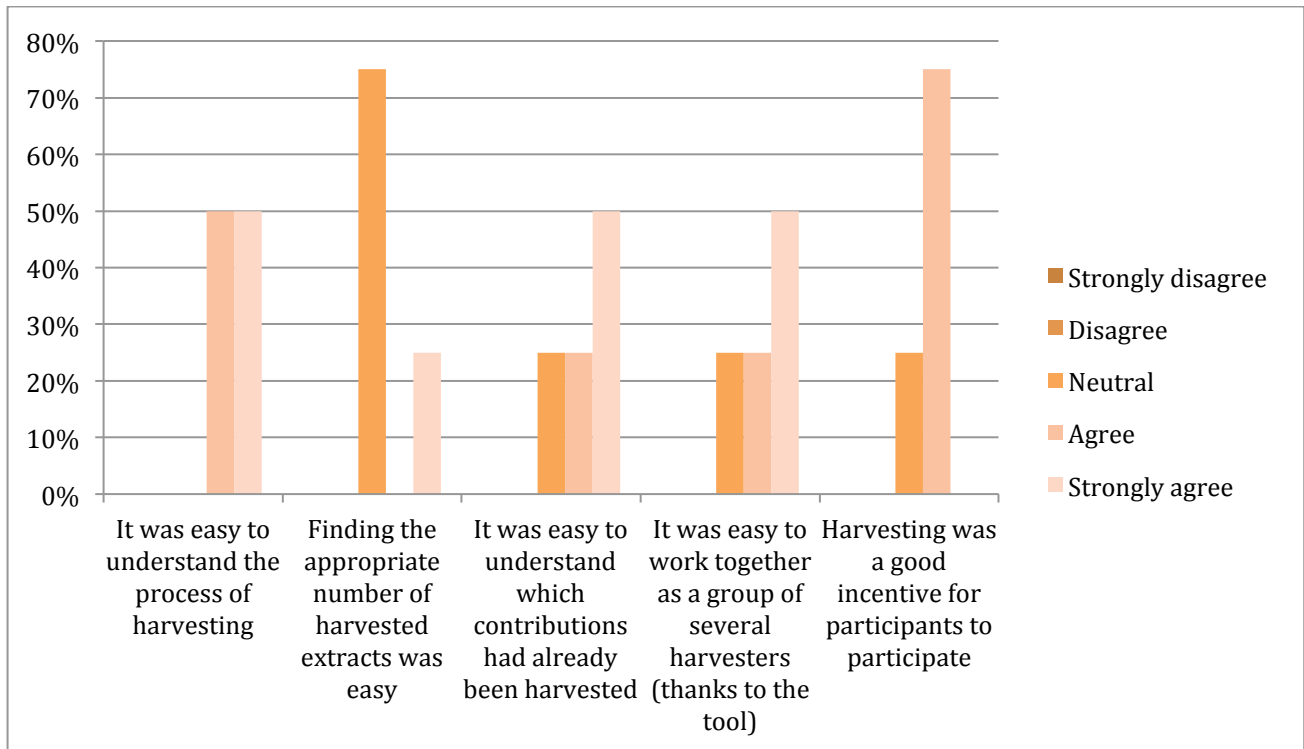
Comment Section:

The process of harvesting is very unique. I quite liked the idea. It differentiates Assembl from other tools.
After clicking on "view conversation" a pop up window opened. In this window it was hard to harvest because if I happened to highlight any text by mistake I would have to close the window and open it again to try to harvest the comment I actually wanted.
I have never done harvesting on my own, only together with my colleagues, so my experience was more around understanding the overall process, which went ok, and the purpose of it, which I found particularly interesting in order to call attention and stir discussion.
Harvesting was quiet straight forward and thanks to the visual highlights of assembl it was also very easy to see which extracts had already been harvested by others. It was easy to work together with a group of several harvesters.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**

The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **46** of **64**

4. Specific Features

4.1 Table of Ideas

Comment Section:

The Table of Ideas was really helpful in providing an overview of the discussion and to follow it.
We learned quite quickly how to create and operate the table of ideas. The last point is particularly relevant – having an overview of the discussion is quite helpful for understanding what has been discussed and where the discussion is standing – this way the user is not hesitant of contributing because he is afraid he has missed something or is repeating what has been already said.
The table of ideas was very helpful for structuring the debate. It was straight forward to create it and easy to do. Also, doing changes within the table was easy.

4.2 The Idea Board
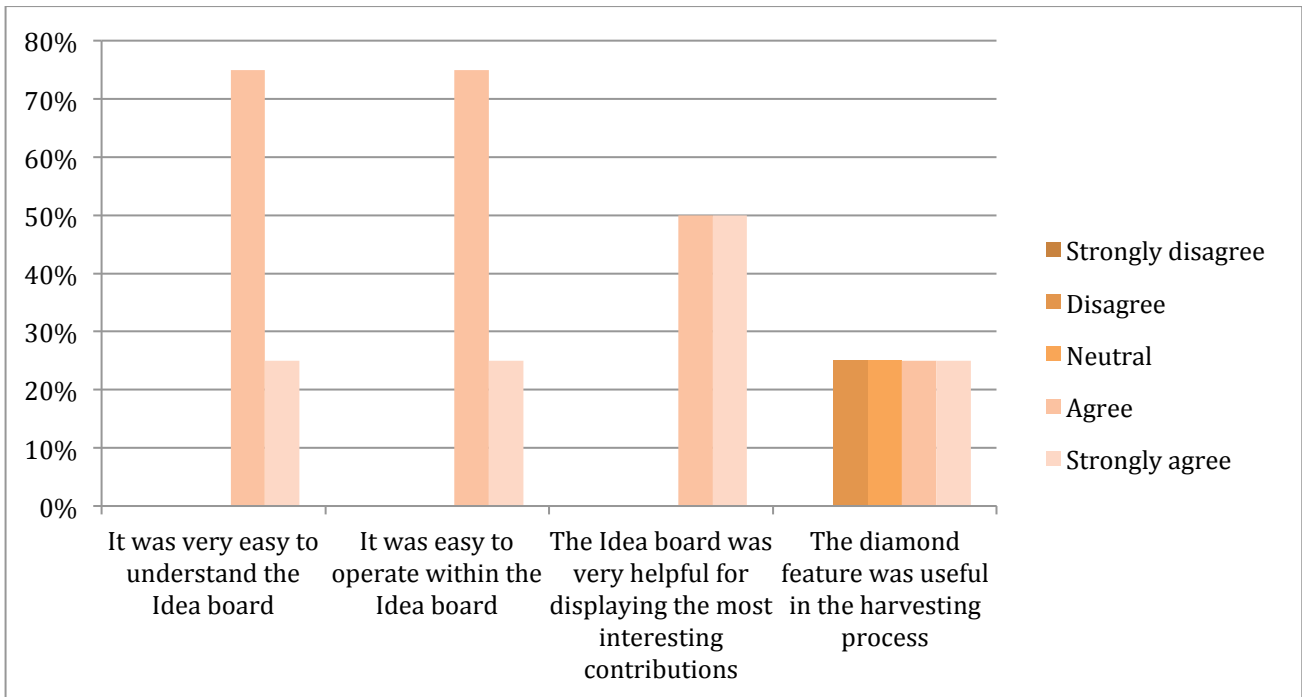
Comment Section:

The Idea Board is a very unique feature. I believe it is a great incentive for participants who contribute to see their harvested thoughts displayed in it. Moreover it gives the other participants the possibility to follow other contributions. The diamond should be more visible and its function more clearly stated. It is very easy to forget the diamond.
The diamond feature was not intuitive in my opinion.
I find it relevant for catching the attention by showing nice pieces and also for stirring the discussion towards the desired direction.
I found the idea board very useful to highlight the best contributions. What was a bit of a shame was that it wasn't possible to change the order of the harvested quotes, which would have been beneficial for some logical structures. The diamond feature created some confusion in the beginning, as it is one additional step you have to take before a quote becomes visible.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **48** of **64**

4.3 Discussion Board
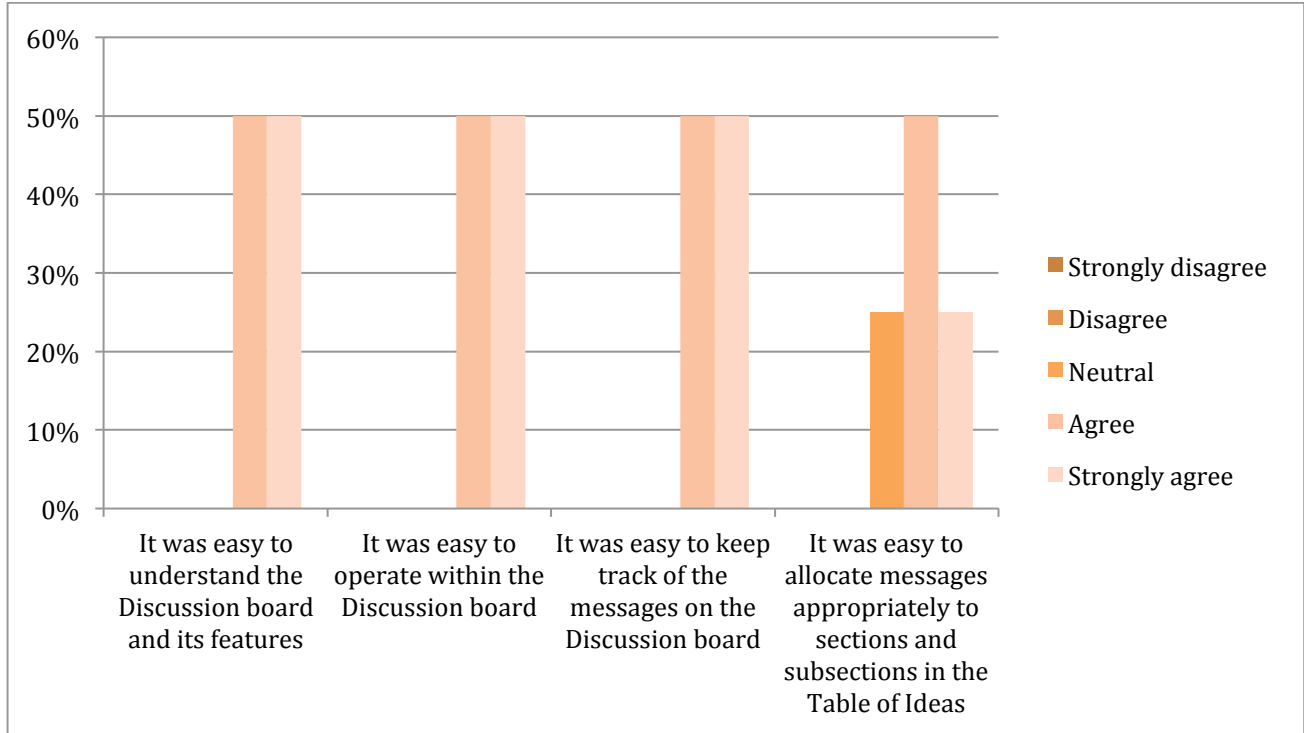
Comment Section:

The different filters in discussion board were very useful in following the line of discussion.
Using the discussion board was very straight forward. Thanks to the visual features it was also very easy to understand which messages were new.

4.4 Clipboard
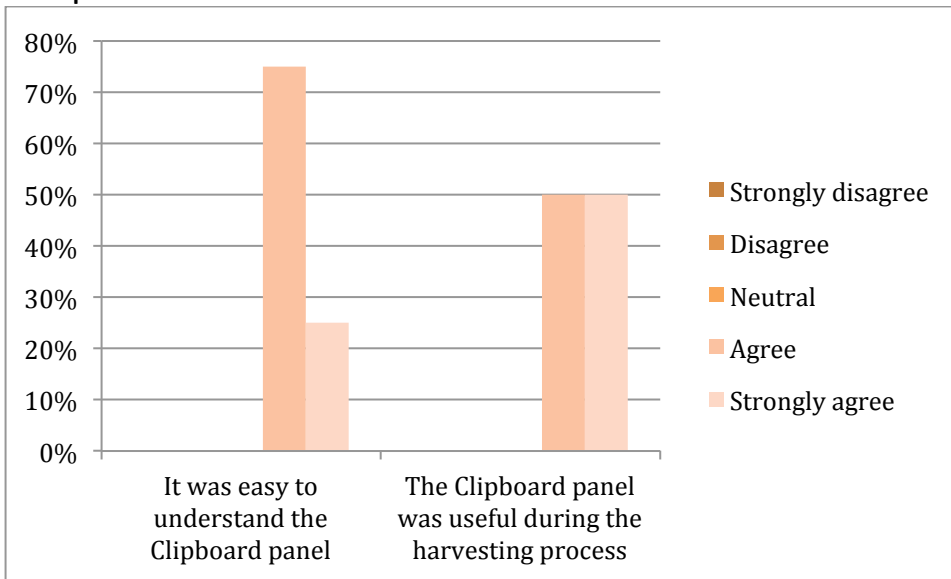
Comment Section:

I found the Clipboard very useful for storing and reviewing the harvested extracts.
This was the least intuitive feature, as it is not visible to participants. It was however useful for the discussion.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**

The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **50** of **64**
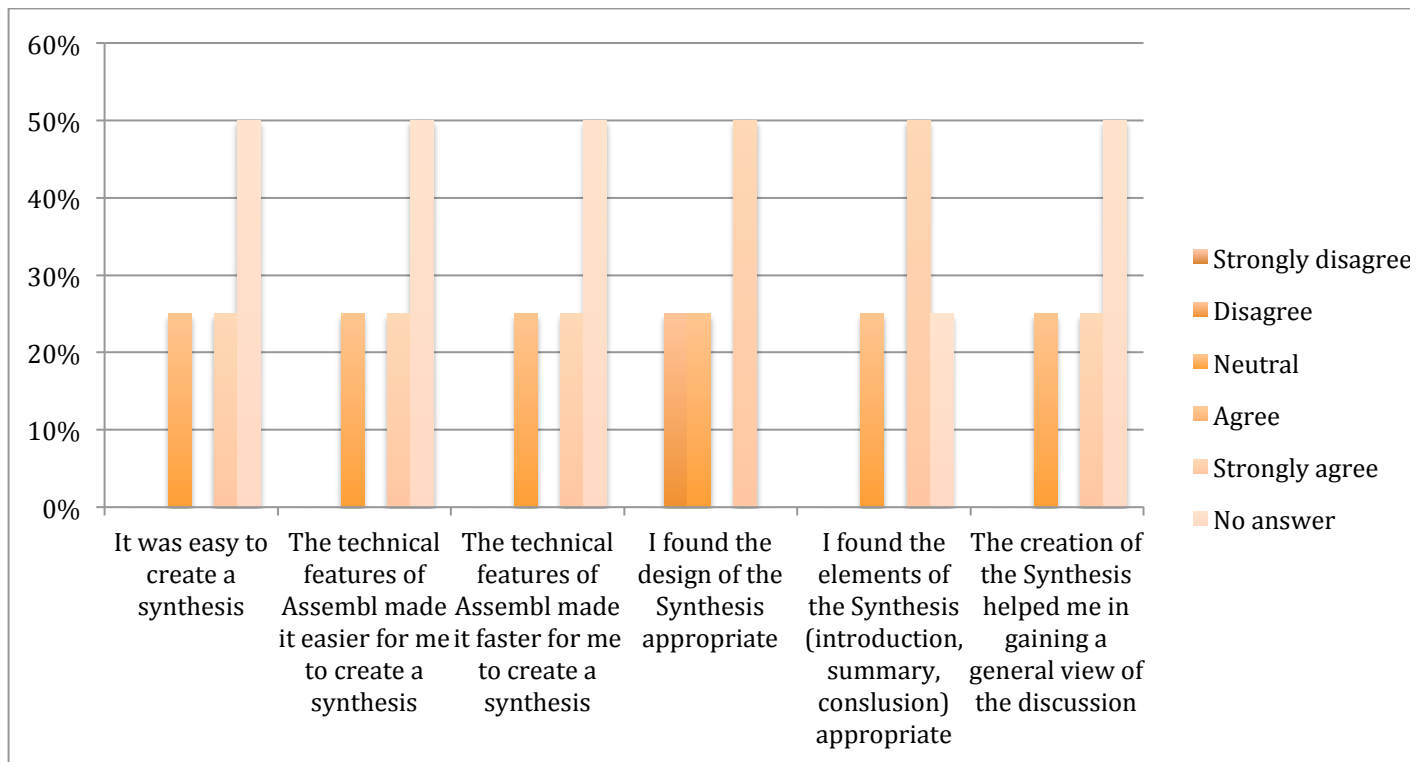
4.5 Synthesis

Comment Section:

I believe the Synthesis is very helpful in providing a general overview of the discussion in case you arrive later in the platform or when you just don't have enough time to follow the discussion.
I never tried making a synthesis.
I haven't done a synthesis myself. But from the design and look point of view, it would be good if it is again less text heavy. This probably depends from audience to audience, but for students interested in design, for ex, I believe this would have been good.
The synthesis function really helped me to create a summery of the discussion in an easy and effective way. With the technical features I could easily select the pieces that I wanted to use for the synthesis and this made it much much faster to create a structure and to add the appropriate content. The building blocks of the synthesis were also very useful. It would have been nice to be able to include some grapfic elements or embed videos or to also send the synthesis as push message to people not signed up to the platform.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **51** of **64**

4.6 Screen modes

Comment Section:

I found the simple mode to be redundant.
I didn't really need this function.
The usefulness of both creativity features depends to a large extend on the type of discussion. For most discussions, as the one that we harvested, people come to bring their own opinions. If it is not a forced discussion, it is rather unlikely that participants will just spend additional time on the platform if they don't know what to write and use the creativity function. It is a good idea that you can give a specific time frame to a creativity session, which I think can increase participation. However, I found that by adding additional features to an anyhow complex discussion forum, users easily get overloaded by options. The creativity cards have great content and are in general a great tool to bring discussions forward.

5. Do you think Assembl's design, the way it is construed, can increase the quantity of contributions in an online discussion? Please specify why

I believe Assembl can increase the quantity of contributions. The tool is user friendly, the different features make it very easy to follow the discussion and to give you an incentive to contribute in it. .
I'm not sure. I had the impression that because participation was voluntary, most people chose not to participate. The usefulness of the tool had no influence in the quantity of contributions in my opinion.
Yes, from the point of view of structuring the discussion – by giving people the overview and the highlights, people probably feel more motivated to contribute – both in terms of quantity and quality. However, the overall design could be less text-heavy and more visually appealing.
I was imagining that the weekly synthesis would lead to higher participation from participants – what we saw was that the people who had already participated before in the debate also continued contributing when they received a synthesis or when they got the notification that someone had answered to their post. Even though we also sent out an email with the weekly synthesis to the students who had not participated in the beginning of the debate, we could hardly gain any additional participants to the debate with this, which we found surprising.

6. Do you think Assembl's design, the way it is construed, can increase the quality of contributions in an online discussion? Please specify why

| |
|---|
| Yes, I believe so. For a qualitative discussion a poster needs first to have an overview of the discussion. Assembl makes this very easy. Moreover, features like creativity widget cards and video are very helpful in inspiring partcipants when they might not have a starting point. By structuring the discussion the user would not just give a general comment for which he would not be sure whether it fits. This also contributes in avoiding and spending so much time in long general comments, but contribute more often with shorter and exact comments. |
| Yes. It is the first online discussion platform that I see that actually has a tool to inspire participants to have something to say. It would be very interesting to test this platform in a context where people are Obliged to participate in the discussions. |
| Yes, from the point of view of structuring the discussion – by giving people the overview and the highlights, people probably feel more motivated to contribute – both in terms of quantity and quality. However, the overall design could be less text-heavy and more visually appealing. |
| From what we saw, the quality of contributions to the debate was really high. The options to design the debate, to highlight important contributions and to summarize a weeks discussion with a systhesis were very useful to ensure topics are not doubling and arguments are being heard. |

7. What did you like the most about Assembl?

I liked the most the table of ideas and the harvesting feature. The table of ideas was very helpful in following the discussion. If one does not like to read through the whole discussion it can just go to the section he/she finds interesting the most and contribute in there. The harvesting option is very unique. It shows to the participants that someone is reading their comments and finds them valuable. Moreover, it is useful when one does not want to read the whole discussion or comment but just to get the general idea.
The inspiration tools.
The Idea Board (for the highlights), the possibility to reply directly to specific posts, and to be notified when someone replies to your post.
It is user-friendly, has a nice design, works well and is finally a tool that allows to structure online discussions.

8. What did you find problematic about Assembl?

I found problematic that certain options are not very clearly visible e.g. the creativity widget "video". Moreover, it was not possible to combine different parts of a comment into one single harvested extract. Also, not being able to edit or delete your comments is very frustrating.
That the discussion panel and the table of ideas panel look exactly the same. Different panels should look differently in my opinion.
The lack of opportunities to share photos and directly embed videos.
We would have loved to embed pictures and videos to make it more appealing to users. Also, not being able to upload a profile picture (without connecting to facebook, google or twitter) was a downside.

9. How satisfied are you with Assembl as a tool for online discussion?
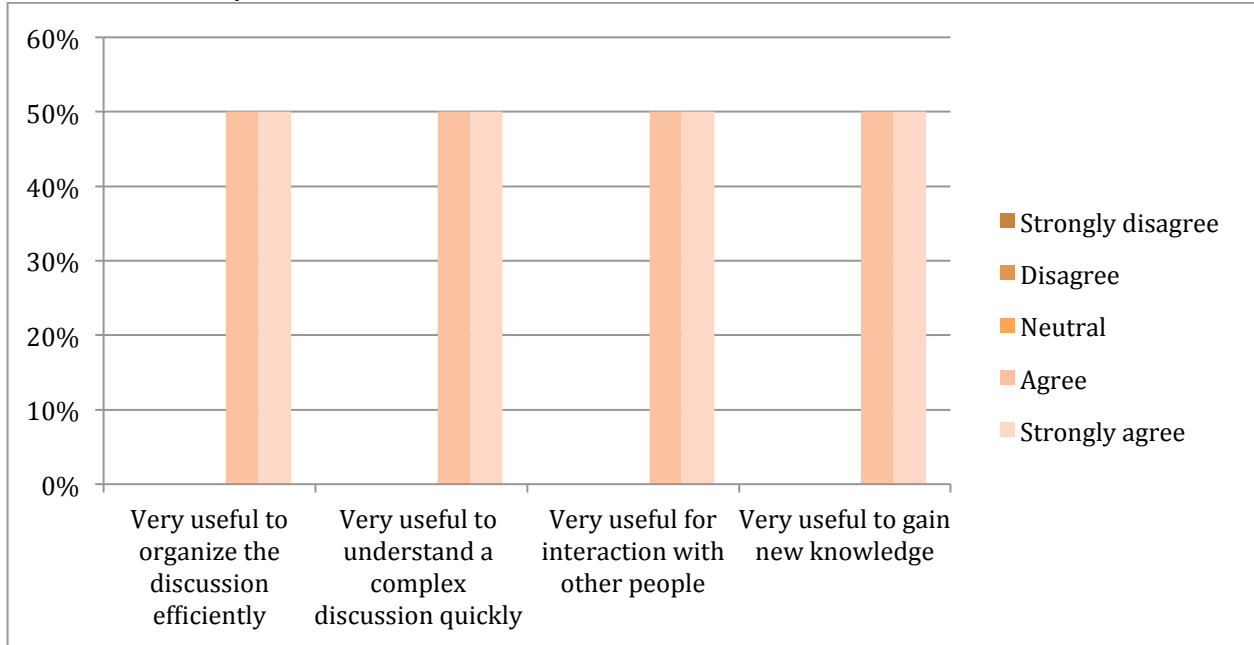
Comment Section:

It was a great experience and the tool has great potential – in our particular case, the users were not very active, but I believe one main learning is to tailor as much as possible to the kind of audience. Both widgets were already steps in this direction.

For a tool with the purpose of enabling online discussions of many people on a complex topic, I think the tool is very well suited and great. The features work and it is easy to structure the debate. I would definitely recommend it, if the topic of the discussion is complex enough and the community doesn't have another platform yet where they debate.

10. What kind of recommendations do you have for the purpose of improving the tool?

I would recommend a more detailed guideline for the tool. Also explanation of the terminology used would be helpful.Personally I would play more with colors for different panels and sections in the Table of Ideas. Moreover,, one should be allowed to change the content of their comments. Also, certain features and their functions are not very easy to find and forget them respectively e.g. the creativity widget "video" and the diamond. They should be more visible.

The possibility of adding my picture without having to link it to an existing account.

11. Any other feedback that you would like to give?

I like to think that this platform will be used mostly in professional contexts (unlike facebook for example). So it would be nice to have the possibility of connecting my assembl profile to linked in or xing or some other professional networking platform.

Tool with great potential.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**

The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **54** of **64**

3.7 Detailed results of the survey completed by the students of the Sustainable Summer School that actively contributed to the debate

Answered: 9

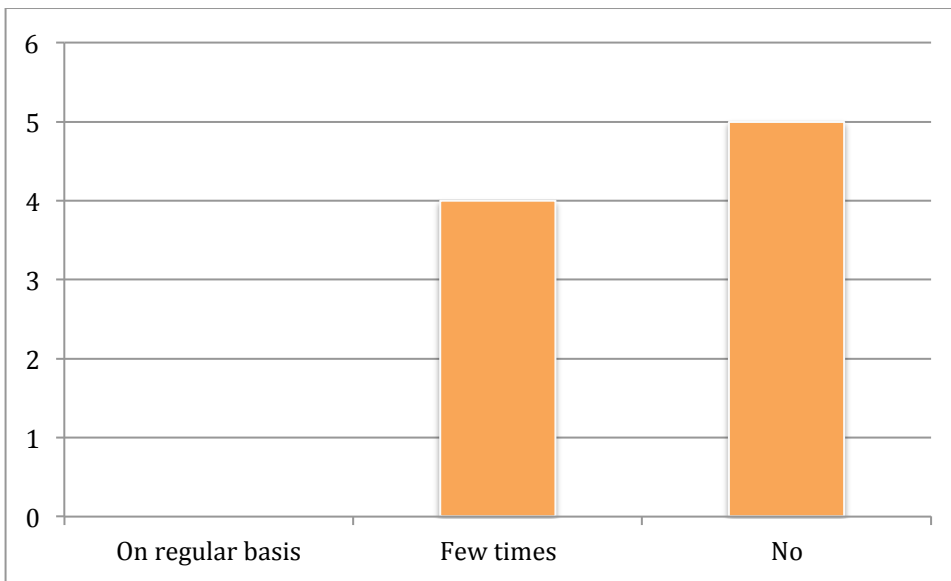### 1. Respondents Demographics

Gender: 33% Male/ 56% Female / 11% no gender provided

Average age: 28,6

2. General Information

2.1 Have you participated in online discussions using other tools before (not including Facebook or Twitter)?

3. Usability of the tool

3.1 How much do you agree or disagree with the following statements?

Legend:
- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

X-axis categories:
- When I arrived first on the site it was clear what was expected of me
- I found the explanation of how to use the site clear on the 'Welcome Page'
- The software made it easy for me to join the conversation
- The table of ideas made it easy to navigate the discussion
- It was easy to follow a thread of thought/conversation
- The table of ideas helped me understand what was being discussed
- The middle panel (with the post-its was useful in helping me navigate the discussion
- The weekly synthesis were useful for understanding/orientating myself in the debate
- The weekly synthesis motivated me to contribute to the debate
- I felt intimidated by the level/amount of conversation
- I found the e-mail notification very useful

Comment Section:

It was a little confusing in the beginning "how to post a message" and such but after figuring out once it was fine.
Such complex discussions can in general be a bit overwhelming and confusing in the beginning. It also just takes a few times of trying before one uses the platform naturally. This is very normal, that you need to use an online platform a few times before it becomes easy to do. Once I had gotten a bit used to it, I found the system very logical and good to use. The little boxes popped up to each comment were very helpful to understand how to use the tool.
My first interaction with the platform was rather challenging. The discussion had already been going for a while and I found it hard to get familiar with the whole tool. After some times of using it was relatively easy. After working with it for some time every feature seemed to make more sense. Overall, the tool is certainly helpful in helping someone to get integrated in the discussion.
I lost the overview with the many answers for eachtopic. I found the order of the different contrbutions often confusing.
I found the email notifications especially useful for the case when someone replied to posts I have made – motivated me to continue the discussion and also engaging with others by commenting their posts.

4. Were there too many ways to interact with Assembl or were there things you could or wanted to do but you could not?

Comment Section:

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**

The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **57** of **64**
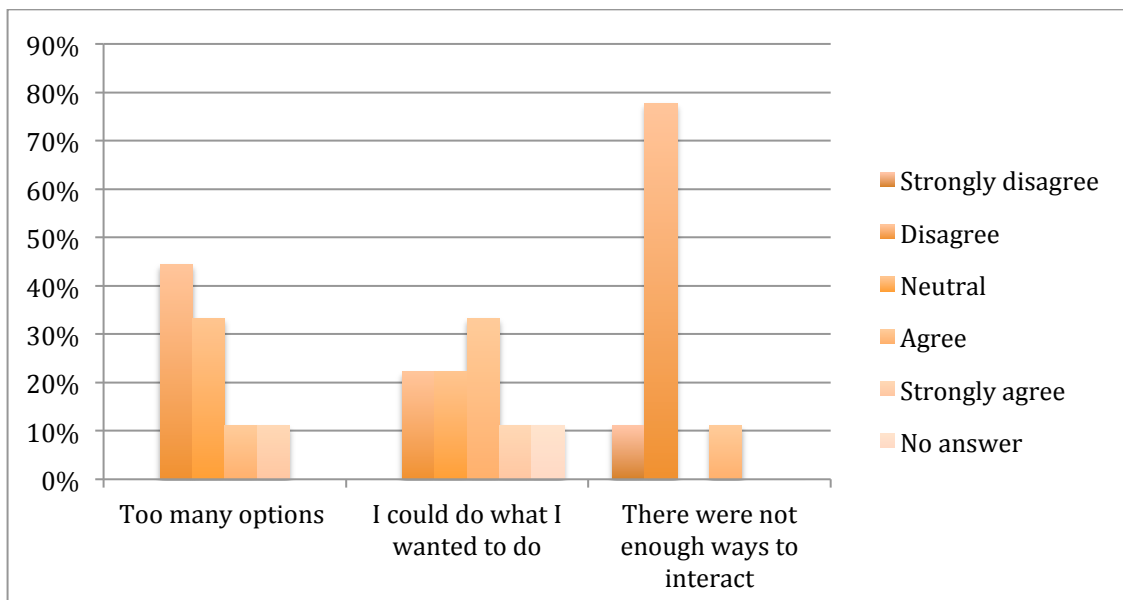
Possibly some more icones or a non-cluttered landing page could fell less overwhelming.
For someone using it few times, this can be confusing as the tool is quiet complex.Once you use ut more often it becomes easier.
Assembl generally gives you the possibility of using different methods/options which help the participants in their contributions to the discussions. But sometimes I was not aware of all the features I could use. A more detailed explanation would be helpful.
I had a lot of difficulties figuring it out if I could start a new thread on te topic of a previous week. All additional contributions I made were responses to threads of the people who contributed within the timeframe of that week.
It would have been nice to be able to share images and embedded videos, for example.

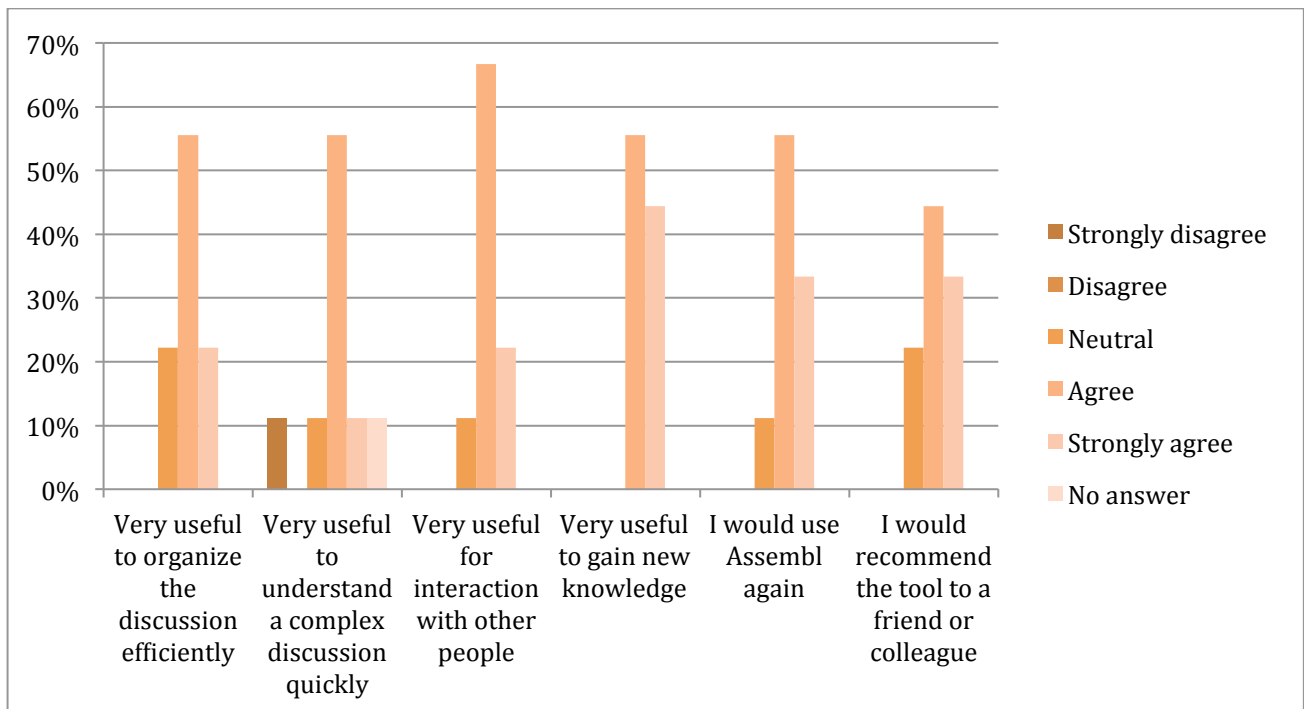**5. How did you access the conversation? (several answers possible)**
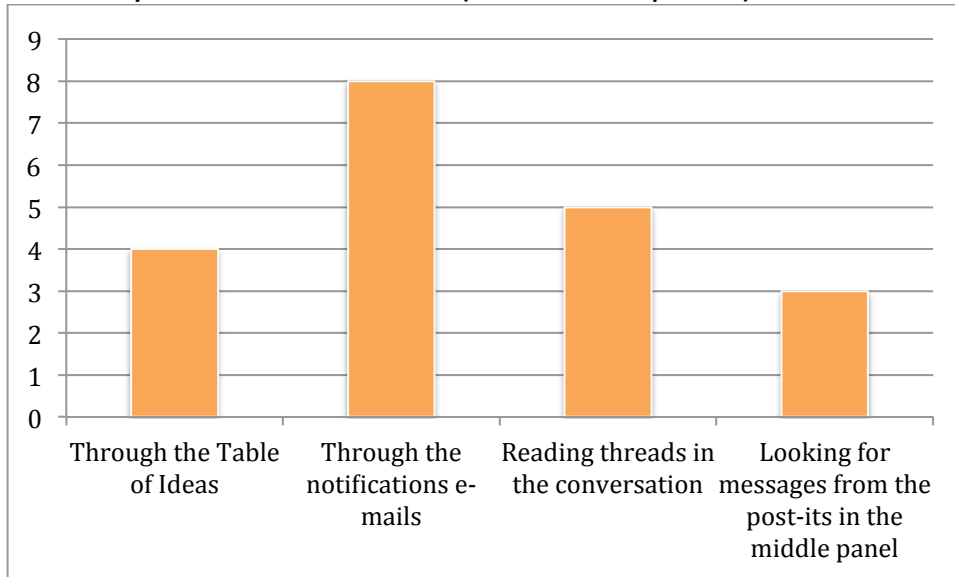
Comment Section:

All ways are suited to access the conversation.
With Assembl it is rather easy to get involved into the discussion

6. Usefulness of the tool

6.1 How useful did you perceive Assembl in general as a tool for online discussion?

Comment Section:

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188
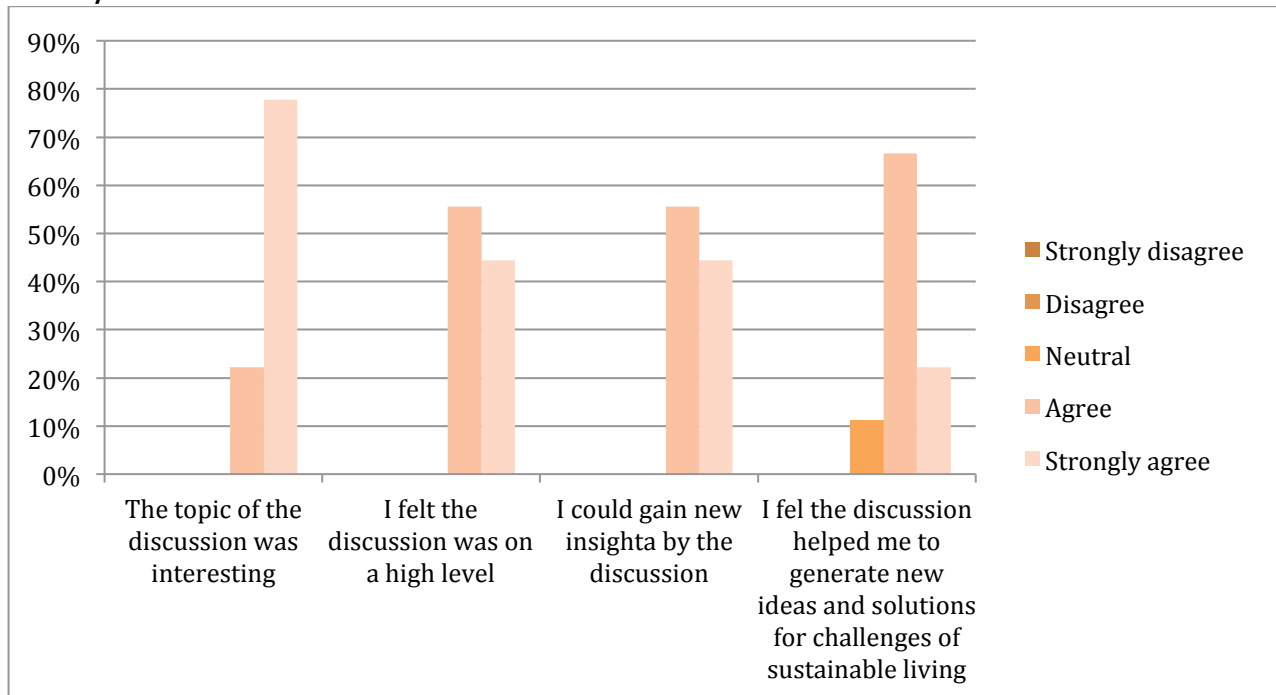
Page **59** of **64**

If the topic of discussion is a complex one, this is a great tool! Moderation requires quite some effort to make it useful.
The way how Assembl is designed helps a lot in structuring a complex discussion into a more understandable one.
A great new platform discovery.

7. Nature of the debate

7.1 Did you like the nature of discussion?

Comment Section:

I was positevely surprised by the high level of discussion
The topic of discussion was really interesting. The useful readings were also very helpful to get more insight. I would have preferred higher level of participation, however all of the contributions were really interesting and I learned a lot. I loved the fact that experiences from different parts of the wolrd were shared and one could have an insight of what is going in different countries in relation to the topic of sustainability.

Is there any other feedback that you would like to give us?

Ich war abgeschrekt, als ich die Online Platform das erst Mal auch so unubesischtlich und nicht intuitiv. Online user sind "faul" und wollen es einfach. Das trifft (leider) auch auf mich zu.
A mobile version could be convenient for moving or travelling participants.
Overall I would say Assembs is a very useful tool for structuring a discussion. Maybe some small changes are needed in relation to helping the users to get familiarized with all the functions and their possibilities from the very beginning.

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **60** of **64**

3.8 Detailed results of the survey completed by the students of the Sustainable Summer School that did not actively contributed to the debate
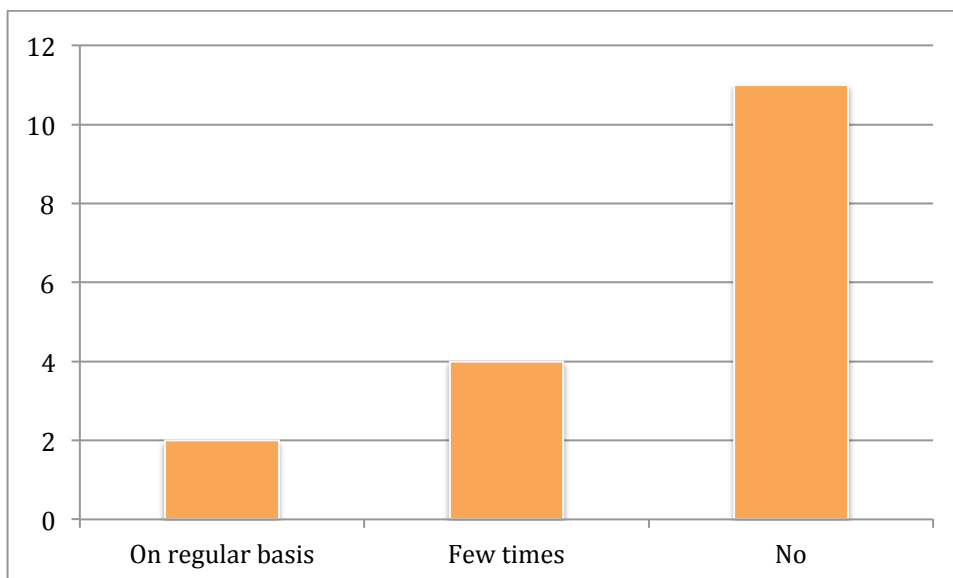
Answered: 17

1. Respondents Demographics

Gender: 35% Male/ 59% Female / 6% no gender provided
Average age: 25,9

2. General Information

2.1 Have you participated in online discussions using other tools before (not including Facebook or Twitter)?

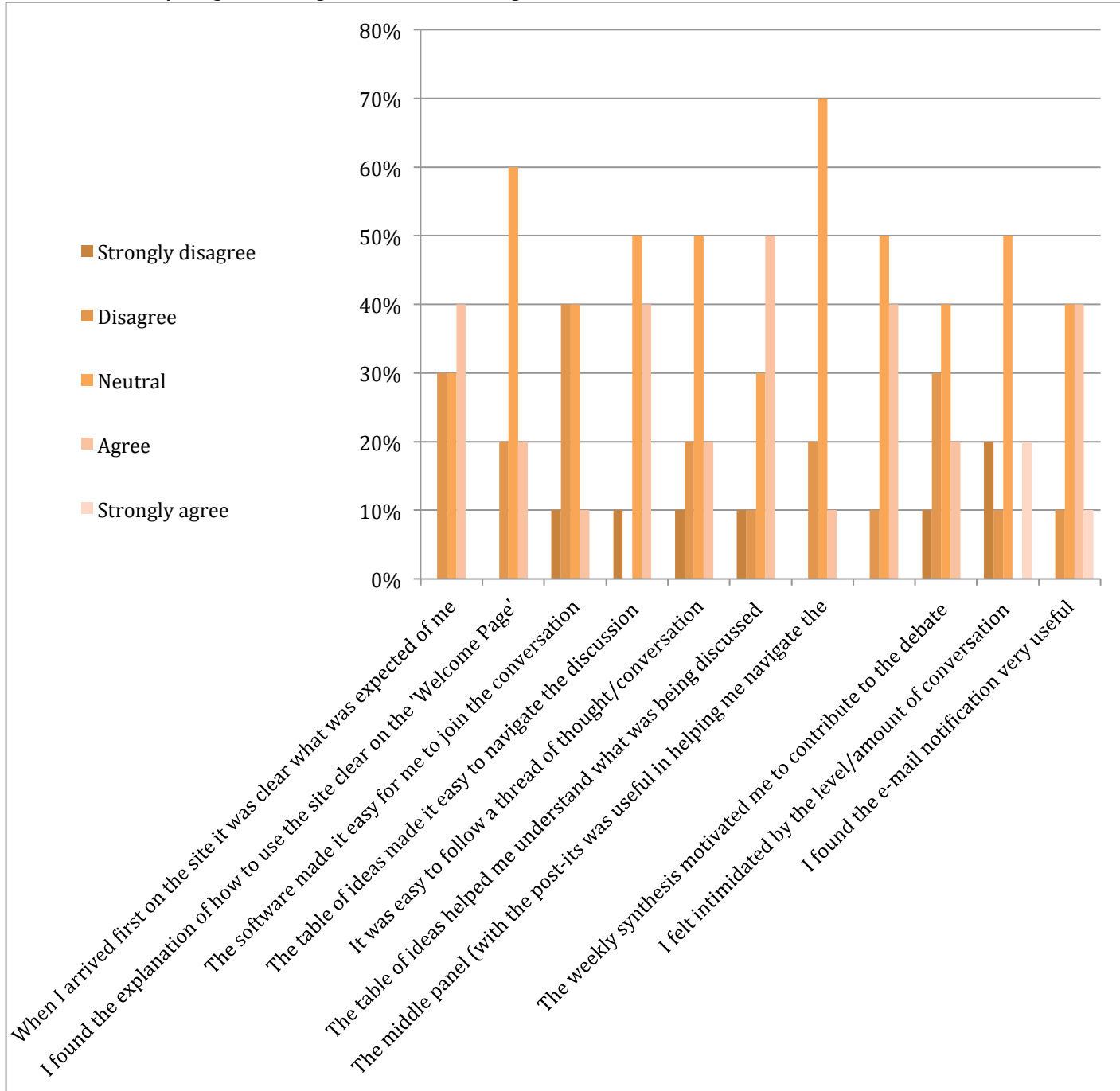This part of the survey (Section B) contains questions for those users who have:

- **Looked at the 7th Sustainable Summer School discussion on Assembl and not contributed to it (please continue to Section B.1, before completing Section B.2)**
- **Not looked at the 7th Sustainable Summer School online discussion on Assembl (please continue directly to Section B.2)**

Section B.1

Respondents: 10

3. Usability of the tool

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ August 2015 ■ CSCP
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **61** of **64**

3.1 How much do you agree or disagree with the following statements?

Comment Section:

I had problems with signing up. I looked at the page but on the first sight it was not so clear to me, so I skipped. Later I didn't have any time; I can't remember the explanation of how to use the site clear on the welcome page.
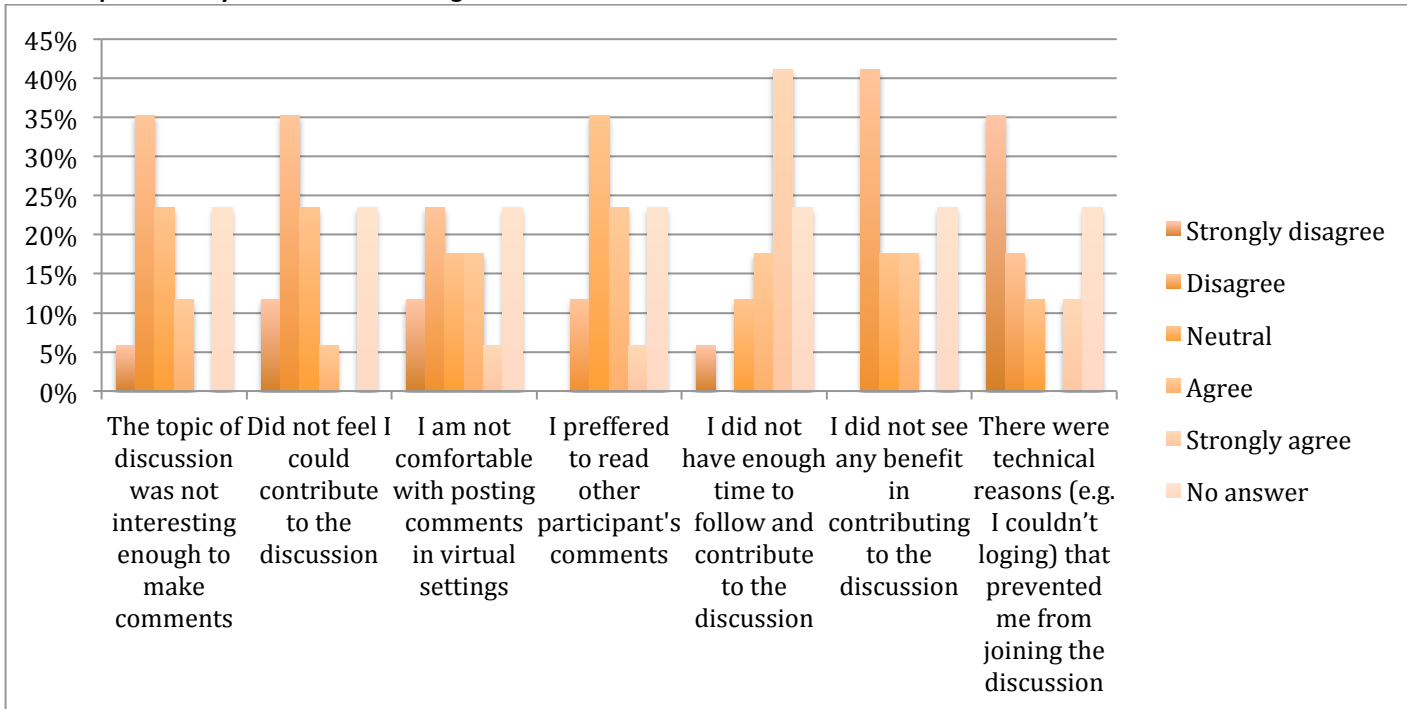
I just didn't take a close look

> Online discussion is great, but can easily become (illegible) and intimidating. I attempted to contribute, I truly did, butcould not find an effective way to jump into a discussion that had already began in the (illegible).

> First of all, I didn't find the first two questions appealing, as I already discussed them with with various people, at many different occasions. For week 3 and 4, I just found it very hard to join the conversation, as the "structure" was confusing. Also the summary links in the e-mails all linked to the same page, so it wasn't easy to get back on track after a while.

> I wasn't aware of the tool as I never got an invitation. This is why I felt "uberfordert" (overwhelmed) when I finally registered, because there was too much content already.

> In some weekly synthesis the link to follow/entry the new discussion was missing/not shown.

> I can't remember the explanation of how to use the site clear on the welcome page.

Section B.2

Respondents: 17

4. What prevented you from contributing to the discussion?

D4.3- Test bed Report: Harvesting, Mapping & Analysing Arguments ■ **August 2015** ■ **CSCP**
The CATALYST project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°6611188

Page **63** of **64**

Comment Section:

I found this a good idea but since I was in a rush mostly I couldn't engage deeper.
Actually I didn't even try to log in. I felt it was too late already.
It was a bit generic; to be honest I feel that online responses are often over calculated, fake and unnatural.
In my opinion, besides the fact I was running out of time, my impression was that all the people that are in and around "summer school" don't seem to be connected for me. So I didn't feel included at time before. We've got no mail with details about the place and so on.
Sorry I was on holiday.
Well, it's absolutely not my habit to use any online social platforms. I think online discussion platforms invite people to exaggerate. People like to present themselves too much, so I don't like it. So it's not your fault.
For me the time limits were pretty much an obstacle. Working 9h/per day in front of the PC doesn't make me want to participate in the survey in my free time. Unfortunately on the weekend the discussions were closed.
Unfortunately, I didn't get your e-mails. I would have loved to take part.
Just registered a week before the summer school started.

5. Other Comments

I found the tool to be impersonal for a first meeting. Perhaps if I were a few years younger, the threshold would be lower. I'm generally not fond of digital communication
Video chats? Actually just offer chocolate from the very beginning ;-)
Delicious chocolate, thank you!
Thank you for drawing my attention to this new tool/way of communication. I'd liked to be informed about the evaluation.
Honestly I prefer talking to people in real-life - but it might be nice tool to evaluate design proposals from start up which contribute to more sustainable products.
Putting poker chips somewhere is much easier and therefore more effective, then write something down, especially in the short time of 15 minutes.
I really loved the idea of discussion and connecting with the minded people online. In everyday life to find people to discuss well is something not so easy and requires patience. Online discussions open another channel and connect worldwide.