

University College of Northern Denmark

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Programme: Multimedia Design

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Project name: Blokhus Sport and Events

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Synopsis: The goal of the project is to develop solid Information Architecture for Blokhus Sport and Events so that it can be easily built upon and maintained in the future. Also, it focuses on building brand identity.

Scope: 63 724 keystrokes with spaces (26.5 pages)

The product is most optimized on the following devices: iPhone 6/7/8, iPad, screen width 1024px and 1920px. It is advisable to open it on them.

Product link: [link to product](#)

This project may be made public.

Full name:

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1. Introduction

Living in a world with countless opportunities to travel and experience unforgettable moments with family and friends, Blokhush is the perfect place to go as it is considered the charm of Northern Denmark. It is a place with beautiful beaches, dunes, fine sand and crystal-clear water. Since it is a tourist populated place with various events happening around all the time, there is an inevitable need to give publicity to the ongoing occasions. The local organization called “Blokhush Sport and Events” gives the opportunity to everyone to join a community and grow as a family, where people can join sport clubs depending on their favorite activities such as football, climbing, volleyball etc. The client’s wishes are to display all events that are happening in the area to promote publicity and to motivate both tourists and community members to take part in the activities or be part of the audience.

2. Problem Description

The main issue that Blokhush Sport and Events community is facing, is that all the information for different sports and events is spread out on Facebook pages which makes it difficult to get an overview for the potential visitors of Blokhush.

Moreover, Blokhush Sport and Events is exploring possibilities of attracting new members by creating the membership status with which you can participate in multiple sports and events that are cost-friendly with several benefits.

Initially, the client was going to give out flyers and different paper outlets to their members to distribute them and raise awareness, but this limits the people that can be reached out because a large part of their users are meant to be tourists.

Overall, not having a digital platform where people can find information about the events can lead to less revenue and awareness. Also, they may lose customers if the information is not in one place because it will become difficult and time-consuming for them to research on events and sports and be involved in the social life.

3. Problem Formulation

Blokhuis Sport and Events currently doesn't have digital representation of content related to past and upcoming events, and information about memberships for sports and other benefits, which can limit potential revenue because their main income is from events and memberships.

The main purpose of building the product is to create a platform where people can become part of a community or in case, they are one-time visitors, they can find information about all events happening in Blokhuis easily. The focus of this project is to build solid Information Architecture for a better user experience and competitive advantage. Also, it is aimed to build brand identity since the organization is new in the market.

4. Research Method

4.1. Project Management

The development method of this project will be 5 planes of UX as a way of structure for the work and report. Within the 5 Planes of UX, the prototyping method will be utilized as a mini development method to work in an agile manner while building the web prototype.

What the client wants is to combine different communities together in a cohesive one. Based on the customer's needs, the product's goal will be to have impeccable information architecture based on relevant user tests and an affinity diagram. Another need from the client is to target

sponsors. However, it is decided that this is outside of the project's scope, since the focus is on user centered design for the most part. The final product should prompt potential members to join the community and be part of something special that should also prompt tourists to travel for events within the region. This strategy will potentially increase the revenue of the company and attract sponsors without the need to target them.

The focus of the project is on the information side of the method. Since the majority of the content is information-based content it is necessary to understand what is important for the users for the different pages.

For the first plane, "**Strategy**", a benchmark will be performed on a few competitors to gain knowledge of the level of information and competition in this particular market. The final category that will be observed is the visual design and how competitor's pages are presenting their identity. Based on the information the future prototype will be revised, refined and tested on users.

The success criteria for the project would be to have performed all of the planned user tests and have a few iterations based on them with a final product being delivered on the day of submission. Usually this is measured in a number of visits, or how much time the user has spent on a page, but due to a fixed timeframe for this project, it will not be possible to perform subsequent tests and adjustments.

Gantt Chart combined with an activity list will be used to estimate and keep track of milestones and their completion. It will be used so that it is stayed on track throughout the project and there is awareness of what needs to be done and what follows next. ([Appendix 11.1.1.](#))

Benchmarking will be utilized by following 7 steps of Philip Kotler as a way of research to gain an understanding of the market and what other companies and organizations are communicating on their websites. It will also help to establish used design patterns and give us more orientation about the visual design.

The prioritization matrix will help us narrow down the important elements of the SRS such as the functional and nonfunctional requirements in accordance to the user's needs. By laying them down on the matrix, it will be easier to focus and prioritize on those tasks.

4.2. User Research

In the early stage of the process a user categorization will be made to set the target group and delimit the user groups which are going to be interviewed. The categorization of users will be made based on objective and subjective criteria, followed by several interviews.

On the basis of target groups and information from user research, a thorough interview guide will be made to perform the interviews according to Kvale's 7 stages. Based on the interviews, a thematic analysis will be done since personas are based on themes in qualitative research and this will help for the process of creating them.

Empathy map will be prepared because it will help to categorize the knowledge about the user into one place and it gives summarized illustration of the person. Most importantly, it will guide us towards significant innovation.

Later, the keywords collected from interviews and empathy maps are combined to build Personas and Scenarios. It is done to generalize the target users who show similar attitudes and goals. This goes in hand with understanding the potential users and building of user-centered product.

4.3. Design, Content and IA

The next phase after segmenting the users and analyzing the outcome from the research, is to generate content, build the information architecture and design for Blokhuis Sport and Events.

Affinity diagram will be used as a tool in order to group the content for the creation of the product. Since, it is worked with large amount of content it will be sorted it out in content inventory, so the content is structured and is prepared to be easily transferred into a simulation of dynamic content - CMS.

In order to build IA that is effective and have a good labelling, card sorting will be performed owing to the fact that it provides insight into users 'mental models for web content.

After having the foundation to build upon, the development method that is approached is prototyping. There will be multiple iterations moving progressively from low-fidelity prototypes (sketches) to high-fidelity prototype. There will be persistent testing of the visual hierarchy and the overall layout using 5-second test. Mobile-first design is approached in order to work with progressive disclosure and avoid unwanted problems that may occur when trying to eliminate content for mobile if starting from desktop. It will be worked constantly with Figma as a development tool because it provides shared artboards where it can be collaborated since the circumstances does not allow physical meetings. In order to create design with high usability, design patterns will come into use as well as other design principles enhancing the visual layout. To build the product, atomic design will be used to structure the layout and the elements in the page. It will be worked on the visual hierarchy so that the data is arranged more effectively. Also, Gestalt principles will be applied in order to enhance the visual design. From client brief it was described that the colors should recreate the feeling of the beach of Blokhuis. For the colors, it will be aimed to build the identity of the organization which reflects their mentioned values by using color theory to combine colors and create a palette.

It will be paid close attention to the readability, including reading patterns since there is going to be a lot of content. Before diving into coding, user think aloud test will be performed as it helps

fixing issues users can experience even before the release of the product. As final touches some micro interactions will be included to enhance the usability of the website.

4.4. Coding

The last phase, after validating the prototypes with user tests, is to build structure of headless CMS and fill it with content provided by the client in order to be able to work with dynamic content when coding. It will be started with building HTML with semantically correct structure and with meta tags to have the foundation of optimized SEO. After, one CSS file will be made to style the pages for all screen sizes that it will be worked with. This way, CSS file will be more compact and won't be so long and heavy in size.

With a focus to have best user experience, JavaScript will be used to create responsive interface and provide dynamic functionality for the end user. In addition to the above, there will be focus on on-site and off-site SEO to increase chances of higher ranking of website.

It will be done by focusing on several things. First one is to create content with keywords.

Secondly, availability to update or add more content so that it gives visitors a reason to keep coming back. Thirdly, is to have content with proper headings, optimized images, font sizes and typography. Lastly, is to make the page responsive for different screen sizes and devices with proper meta tags included. In the end, the code will be validated, its readability and page loading speed will be tested.

5. Applied Theory

5.1. Project Management

The **5 planes of UX** is a development method focused on organized and planned execution of projects starting from strategy, scope, structure, skeleton and finally finishing at the surface.

(Garret, J, 2011, pp 18-33)

The **Gantt Chart** takes an **activity list** and milestones to create an overview of the project and an estimate for each task from start to finish. (Kousholt, 2012, pp. 245-251)

Benchmarking is a research method that helps companies compare their business to other competitors that are typically on the top of the field. (Allan J, 2012, pp 97-102)

Also, the **7 steps of Philip Kotler** resemble a wheel going through phases to perform benchmarking and is also known as a comparing method. (Kotler, 2020)

The **prioritization matrix** is a method with which we can visually delimit the more important tasks within a project and focus on them. (Gibbons, 2018)

5.2. User Research

User categorization/segmentation will be used to divide the market into target groups based on subjective and objective criteria. (Philip Kotler, 2010)

Interview investigation does not have a standard procedure of conduction. To collect qualitative data interviews will be performed according to Brinkman's and Kvale's 7 stages of an interview investigation. (Svend Brinkmann, 2015)

Empathy Map is a visualized collaborative mapping of users. It shares an understanding of what is known to create a common understanding of users and how one should go about decision making. (Gibson, 2018)

Personas are fictional characters shaped based on gathered data and focus area to gain insight on user behavior and journey while using interfaces. Personas help in development of functionality and content. (Nielsen, 2019)

5.3. Design, Content, IA

Affinity Diagram helps to gather information that can be easily organized into smaller meaningful groups based on their correlation. It also provides visualization of the overall process. (Dam and Teo, 2020)

Card sorting is a UX research technique in which users organize topics into groups. It helps to organize content that will suit the users' expectations. (Sherwin, 2020)

Information Architecture focuses on creating content and grouping it in a way that make sense to the people. (Spencer, 2014, p.17)

Prototyping is the creation of simple, incomplete models of mockups. It provides designers with a key insight into design requirements and gives them method to visualize and improve design specifications prior to delivery. (Lidwell, Holden and Butler, 2010, p. 194)

5-second User Test- *"It is a form of usability testing that allows you to measure how well a design quickly communicates a message. This kind of test provides both quantitative and qualitative feedback that helps you optimize a design."* (An Introduction to Five Second Testing - UsabilityHub, 2020)

Design Patterns are going to be used in order to enhance the functionality of the product since they are already proven by experts. Moreover, for the first-time visitors of the platform it will be more intuitive for them to recognize reoccurring patterns. (Neil, T., 2014)

Visual Hierarchy refers to deliberately presenting visual content in such a way that the order of importance is clear and quickly understood. (Gordon, 2020)

Gestalt principles are rules of how people perceive things and their aim is to group the regularities. These principles mainly apply to vision and they help people perceive the visual fields to be as groups and segregated from the rest. (Todorovic, p.53)

Color theory is used to describe the collection of rules and guidelines regarding the use of colour in art and design. It informs the design of color schemes, aiming at aesthetic appeal and the effectiveness of a design message on the visual and the psychological level. (Lidwell, Holden and Butler, 2010, p. 48)

Readability ensures that the content is conveyed effectively by making sure the user recognizes the information efficiently without a need to spend extra efforts. (Lidwell, Holden and Butler, 2010, p. 198)

Think aloud test is going to be used to identify if the current product has some issues in the interface that makes it difficult to complete task or have a confusing language. During the process the participants are asked to use the system while continuously thinking out loud. (Kuniavsky, 2012, p. 11)

6. Analysis

6.1. Categorization

Categorization has been done in which the potential users are delimited based on demographic, geographic, behavioral and psychological segmentation. The main target group of Blokhuss Sports and Events are people within Denmark, with secondary countries such as Germany, Norway and Sweden. They are between 20 and 50 years of age both male and female. The target group includes both people with families and single people. They should be physically active as well as active internet users. What they seek is adventure, different sports activities and events to participate in with a group of people. The categorized users are willing to travel and explore different countries. The delimited users must be social and accept community values, share their interests and activities.

The categorization is based on several pieces of standard data extracted from “VisitDenmark” that provides insight into the tourism in Blokhus, how people do their research when visiting the town, the crucial factors to go there and different nationalities visiting.

When looking at the section of demographics the three main countries which residents bring the most revenue to Jammerbugt are Germany, Norway and Sweden. These countries were taken into consideration as main targets when it comes to tourism. As shown in *Figure 1*, the turnover is 260.6, 163.2, 63.5 million of Danish krona respectively according to the mentioned countries.

Appendiks 7. Turismeomsætningen i Region Nordjylland fordelt på kommuner og markeder.

	Hele regionen	Brønderslev	Frederikshavn	Hjørring	Jammerbugt	Læsø	Mariagerfjord	Morsø	Rebild	Thisted	Vesthimmerlands	Aalborg
	mio. kr.											
I alt	8.940,3	290,5	1.555,5	1.044,2	1.069,6	102,3	456,8	160,9	349,0	433,2	688,3	2.790,3
Danmark	4.095,4	111,5	652,4	416,5	530,4	38,5	185,8	108,4	225,3	203,6	259,1	1.363,9
Udlændinge i alt	4.844,9	179,0	903,1	627,7	539,1	63,7	271,0	52,4	123,7	229,6	429,2	1.426,4
Belgien og Luxembourg	5,9	0,2	1,2	0,8	0,3	0,0	0,3	0,3	0,2	0,4	0,1	2,0
Canada	74,8	4,5	8,5	8,7	4,9	0,3	5,4	2,5	3,6	5,2	6,3	24,8
Finland	9,5	0,5	3,4	0,8	0,4	0,0	0,3	0,1	1,1	0,2	0,3	2,6
Frankrig	24,0	1,0	3,3	2,4	1,4	0,1	1,3	1,7	0,8	3,5	1,2	7,4
Holland	66,4	1,6	10,6	9,8	10,3	0,7	4,6	1,9	1,3	8,4	5,3	12,1
Italien	9,4	0,0	2,6	0,6	0,8	0,0	0,8	0,2	0,2	0,4	0,2	3,5
Norge	1.680,9	63,0	318,4	216,5	163,2	15,3	73,8	7,8	41,3	48,3	170,9	562,5
Polen	5,1	0,0	1,2	0,3	0,1	0,0	0,3	0,1	0,1	0,6	0,4	2,0
Schweiz	5,6	0,0	1,7	1,5	0,4	0,0	0,4	0,1	0,1	0,4	0,3	0,8
Spanien	3,3	0,0	0,6	0,2	0,1	0,0	0,2	0,1	0,0	0,2	0,1	1,9
Storbritannien	137,2	6,7	20,9	15,1	8,2	0,4	8,4	1,8	5,3	3,9	16,6	49,8
Sverige	729,6	29,7	233,8	87,4	63,5	18,8	29,3	5,1	15,8	18,1	23,5	204,8
Tyskland	1.718,7	55,6	227,0	247,0	260,6	26,8	124,3	28,0	41,0	131,2	167,8	409,5
Østrig	10,5	0,7	1,7	1,7	0,9	0,0	0,8	0,0	0,6	0,2	0,0	3,9
Øvrige Østeuropa	7,2	0,0	1,7	0,3	0,2	0,0	0,1	0,0	0,0	0,3	0,9	3,6
Øvrige Europa	75,5	4,1	9,6	8,7	7,5	0,2	5,1	0,1	3,0	1,6	7,2	28,3
Japan	2,5	0,0	0,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,0
Øvrige Asien	42,4	1,3	4,9	2,6	1,5	0,1	1,7	0,3	1,1	0,7	1,6	26,7
USA	109,2	5,3	12,6	11,1	5,9	0,3	6,5	0,0	4,4	0,3	24,5	38,2
Øvrige Amerika	1,3	0,0	0,5	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,7
Øvrige lande	126,3	4,7	38,8	12,2	9,0	0,8	7,5	2,4	3,8	5,7	2,0	39,5

Note: Tallene er revideret siden VisitDenmark publikationen: "Turismens økonomiske betydning i Danmark 2006".
Kilde: VisitDenmarks turisme satellit regnskab.

Figure 1

In Northern Jutland, tourism consumption takes 2.6% out of their total consumption. Region that has most significant tourism consumption, after Laeso, is Jammerbugt with 5,6% of their total consumption. (Figure 2)

Tabel 3. Turismeforbrug og turismeandel fordelt på kommuner. Sorteret efter turismeandel. Region Nordjylland. 2006

	Turismeforbruget			Samlet udbud	Turismeandel
	Kommercielle overnatningsformer	Ikke-kommercielle overnatningsformer og endagsrejsende	I alt		
		mio. kr.			Pct.
Region Nordjylland i alt	4.728	4.212	8.940	342.220	2,6
Læsø	74	28	102	897	11,4
Jammerbugt	701	369	1.070	18.994	5,6
Frederikshavn	998	557	1.556	38.507	4,0
Vesthimmerland	307	382	688	23.344	2,9
Hjørring	564	480	1.044	37.088	2,8
Rebild	138	211	349	14.778	2,4
Aalborg	1.198	1.592	2.790	119.768	2,3
Mariagerfjord	209	248	457	25.979	1,8
Brønderslev	93	197	290	17.466	1,7
Thisted	323	110	433	30.710	1,4
Morsø	121	39	161	14.689	1,1

Note: Kommercielle overnatningsformer: Hoteller, camping, vandrerhjem, feriecentre, lystbådehavne, bondegårdsferie, krydstogt og lejet feriehus. Tallene er revideret siden VisitDenmark publikationen: "Turismens økonomiske betydning i Danmark 2006".
Kilde: VisitDenmarks turisme satellit regnskab.

Figure 2

According to (Figure 3) the number one reason for people to travel to different regions is based on past experiences. For Jammerbugt, where Blokhus resides, the second highest reason for travelling there is internet research. A recommendation from family and friends comes into 3rd place, thus, forming a community around the area is strongly supported by the data.

Tabel 17. Hvad har været afgørende for valg af destination

	Tidligere erfaringer	Anb. fra familie/venner	Artikler, bøger, radio- og tv-programmer om Danmark	Information om Danmark på Internettet (fx visitdenmark.com)	Annoncer, brochurer, radio- og tv-spots om Danmark	Anbefalinger fra rejsebureauet	Rejsebeskrivelse eller lignende relateret til Danmark	Kataloger og andet konkret salgsmateriale	Andet
Region Nordjylland i alt	76	21	8	19	12	2	2	15	25
Aalborg	51	15	6	12	8	5	1	9	26
Frederikshavn	89	30	11	26	13	1	4	28	17
Hjørring	85	23	12	19	18	2	3	14	39
Jammerbugt	72	18	4	21	9	3	2	16	17
Læsø	98	23	1	9	5	.	.	8	5
Mariagerfjord	56	6	4	7	2	2	4	4	34
Morsø/Thisted*	82	22	4	17	11	1	1	15	5
Vesthimmerland/Rebild/Brønderslev*	63	29	12	23	18	.	.	10	27
Øvr. DK	75	29	7	18	5	2	2	17	26

Note: Rækker summer ikke nødvendigvis til 100 pct. pga. flere svarmuligheder. * Sammenlagt af statistiske grunde.

Kilde: VisitDenmarks Turistundersøgelse

Figure 3

6.2. Interviews

Interviews have been performed based on Kvale's 7 stages. The main aim of the investigation is to obtain knowledge about why people join communities and what information is relevant to make them participate in the event.

According to interview guide ([Appendix 11.2.1](#)) there are two hypotheses formed and they are as follows:

H1: People like being part of a community because they get the chance to meet new people and spend some time doing variety of activities.

H2: People are interested to see numerous pictures of an event, not only information how it went.

Thematic analysis is approached for the gathered qualitative data where two steps are being followed. First, the interviews are coded in order to get meaningful groups and have an overview of the most interesting pieces of data. The subsequent step is to look for the main themes in the interviews and colour-code them. When the thematic analysis is done, it will help in segmentation of users and in building of personas based on the qualitative data. ([Appendix 11.2.3](#))

First question is regarding the experience of participating in sport related communities. It can be outlined that three people out of four are part of sport community from which they see several benefits. *"I was a member there, otherwise you would have to pay to come and see the games."* ([Appendix 11.2.2.1., lines 15-16](#)), *"I currently am part of a volleyball club and I have been playing there for 6 years now."* ([Appendix 11.2.2.2., lines 9-10](#)), *"I have been in football club, swimming club and a running club."* ([Appendix 11.2.2.3., lines 9-10](#)) However, the fourth participant doesn't feel like he is part of any community and he is just taking part in different sports. *"No, I've taken some training in different types of sports for different periods of time, but I have never been a part of a community."* ([Appendix 12.2.2.4., lines 6-7](#))

The following question reveals the crucial aspects standing behind joining the community. The three interviewees who are part of a community reveal that most important to them is the social aspect, the chance to get disciplined, the chance to travel and most importantly-to have fun. *"Overall spirit and togetherness"* ([Appendix 11.2.2.1., line 30](#)), *"I had the need to socialize and free out my energy so I thought that would be a great place"* ([Appendix 11.2.2.2., line 15-14](#)), *"I wanted to pursue this joy I was feeling by joining a club in the hopes of getting to like these activities even more."* ([Appendix 11.2.2.1., line 13](#)).

Regarding the question about which information people find most important when looking up for some particular event, it can be outlined that all of the interviewees are looking up the location for several reasons - chance to travel more and explore, or places where they can go with friends. Secondly, they look for the timeframe and description of event. *“If I am going to attend an event, I am first checking where the event is because I would like to travel more and explore new places”* ([Appendix 11.2.2.2., line 26-27](#))

Asking the question about what motivates people to be part of events it is clear that people find themselves competitive in some cases and want to test their limits or simply improve themselves. Other aspect is that one spends good time with friends and get the chance to meet new people. *“The competitive aspect but also the same thing that I mentioned before... it’s just a great feeling of being united with other people that share the same passion for a certain thing... ”.* ([Appendix 11.2.2.3., line 30-31](#))

The subsequent question is regarding experiences and what made it memorable. It can be clearly outlined that all people enjoy the whole feeling of being around other people, meet new friends and have a full hands-on experience. *“Event was memorable as a whole... a combination of family support, support from unknown people, the organization for managing the run so well... they hired pacers... people to hand out water during the run, people to bring out prizes when it finished ”.* ([Appendix 11.2.2.3., line 48-50](#))

What can be concluded from all questions is that the most valued aspect of being in a community is the enjoyment of socializing and creating new acquaintances. Moreover, people are feeling joyful while doing what they love and spend quality time. Nevertheless, there is some misunderstanding of the concept community from one of the interviewees since it is a very broad term.

The findings of this research confirm the first hypothesis that people like being part of a community because they get the chance to meet new people and spend some time doing a variety

of activities. The second hypothesis is also confirmed which states that people are eager to see images of the event and not only information how it went.

6.3. Empathy Map

After finishing interviews, it has been decided to make one empathy map of each interview transcript to articulate what is known about interviewees. The main goal of making empathy maps was to get knowledge about user's positive and negative feelings about being in a community and what actions they do while being part of one. Each team member started reading through interview transcripts and started writing sticky notes that align to the four quadrants (says, thinks, does and feels). The next step is to cluster sticky notes in empathy maps and to start analyzing them. (Gibbson, 2018)

After analyzing all four empathy maps it can be outlined that people join the community mainly because of opportunity to make new friendships, to share experience and knowledge with them and to get more opportunities to travel to events in new places. ([Appendix 11.2.4.](#))

All of the users have mostly positive feelings about being in a community. Their only negative feelings are the fears they had before joining, such as fear that the community won't meet their expectations, that they don't belong in it or the feeling of being left out. Positive feelings are used to create strong keywords (excitement, competitiveness, energetic, socializing, good atmosphere, belonging somewhere, youthful, patriotic, cheerful) that will be helpful in building of personas which will give an overview of potential user's behavior, needs and frustrations.

6.4. Personas

Following the performed interviews and analyzed empathy maps for each interviewee, two personas were created to match the common characteristics and needs the interviewees possess. To have a clear understanding of different behavior of target groups personas are created with a difference in gender, age, marital status, and background. Personas are also given a short

description of themselves with a glimpse on their past to give an introduction of their habits and relationships with sports.

Furthermore, each persona is given at least one situation and scenario for the according situation. In these steps it is tried to portray the motives and behavior of potential users of the website and how they go about finding the needed information. The path of the website that is built for personas is how it has been imagined at the time of doing them, and it might not match the final results because of the upcoming process of building IA and design.

The first persona by the name of Martin ([Appendix 12.2.5.2.](#)) represents a family man who has a wife and a growing up kid. Martin and his family are in Sweden, which has a connection to research of standard data – *one of the four main countries to visit Blokhus area are Swedes.* Martin's bio shows several combined characteristics and past interests from user interviews. The **situation** in which Martin finds himself he is represented with an opportunity of going to Blokhus on a holiday trip with his family. Particular **situation** introduces to why would Martin find Blokhus an appealing place to go to. The **scenario** explains a path of finding and exploration of the Blokhus Sport & Events website. Scenario also opens up some of the characteristics, like frustration and excitement. This gives an understanding of what could be a useful tool to have in design process of the interface.

The second persona follows the same structure ([Appendix 12.2.5.1.](#)). The persona of Karen speaks for several interviewees – it is important to socialize and experience new adventures. Her frustration summarizes the filled life of a young adult and how she likes things to be done quickly.

The 1st **situation** introduces to how Karen searches for information and explains why she is frustrated. **Scenario** connected to this situation interprets how a user is looking to find information and sort the items to find the fastest way to the desired event. Here, the behavior of users is included and how they find their way through the page. Karen is represented with an

obstacle of going to the wrong section, but soon realizing that the desired destination was right next to it. The breakdown of this scenario helps the project team in understanding of how different users might navigate through pages.

The 2nd **situation** Karen finds herself helping a friend and raising awareness about the webpage, which is a big step in building a strong community. In this **scenario** the focus is pointed at the aspect of socializing and togetherness of community. George is looking for variety of different events and workshops to attend in his free time. The portrayal of social aspect and how much it matters is the big motivator in Georges case and he wants to become a part of the community. The project group is trying to paint the picture of possible display of encouragement message and how easy it is to find it.

While building personas it was important to keep the focus on the character and their behavior in order to create more empathy and understanding about the person using the product. Personas came in very handful for beginning of idea generation and affinity diagrams.

6.5. Affinity Diagram

After the creation of personas, the next step that is approached is to go through a brainstorming session in order to come up with ideas regarding the content creation of the website. When the session is ended, the subsequent step was to group the similar ideas and form clusters from them. The clusters are named and organized into “foreseeable pages”. Since, the process aroused questions regarding the organization of the content, the next step is to perform card sorting. (Figure 4)

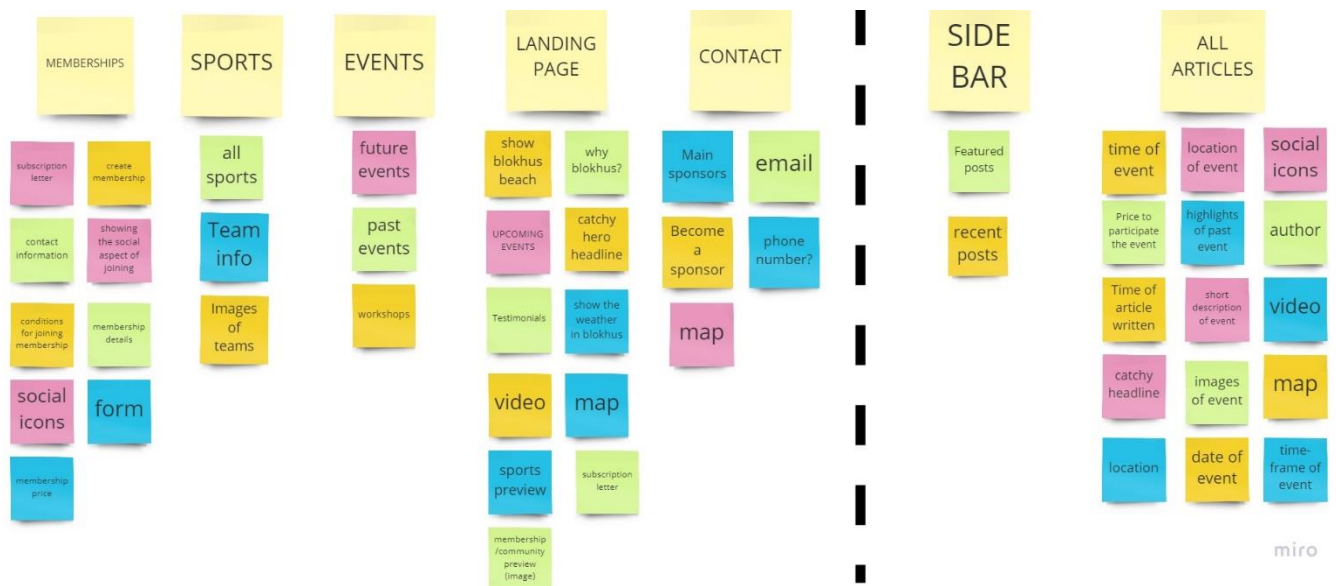


Figure 4

6.6. Card sorting

After the Affinity Diagram has been completed, there is doubt about which data should the events pages display (preview of events, up-coming events and past events). It has been decided to go with a card sorting method and more in particular the closed version because with open card sorting the users would have too much control and probably would be confused as to what to do exactly.

The interpreted categories “Preview of article”, “Future articles” and “Past articles” are sought as **molecules** and the cards underneath “ALL ARTICLES” as **atoms**. It was further discussed that potentially the affinity diagram could be missing something so the “Custom card” was introduced in case the users felt the need to express certain thoughts or missing features. (Figure 5)

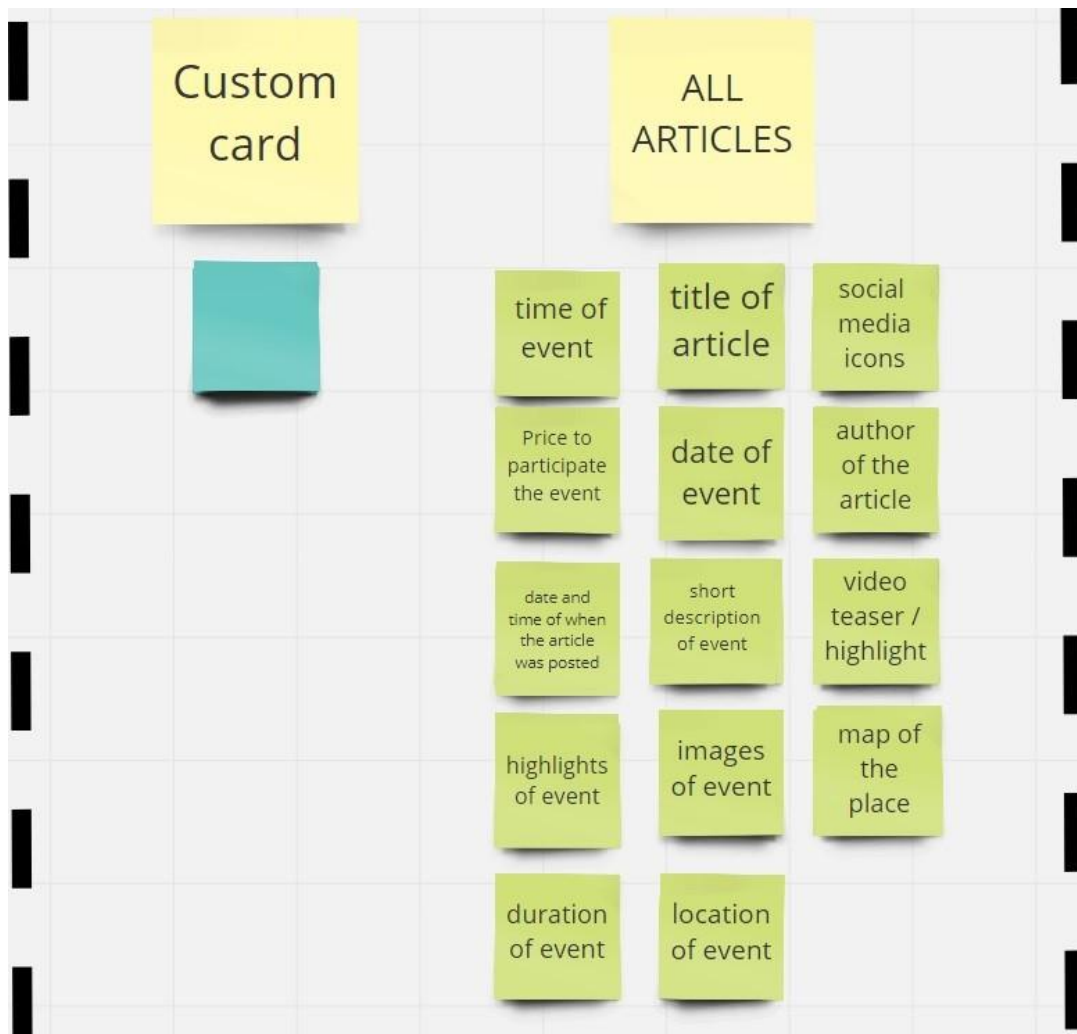
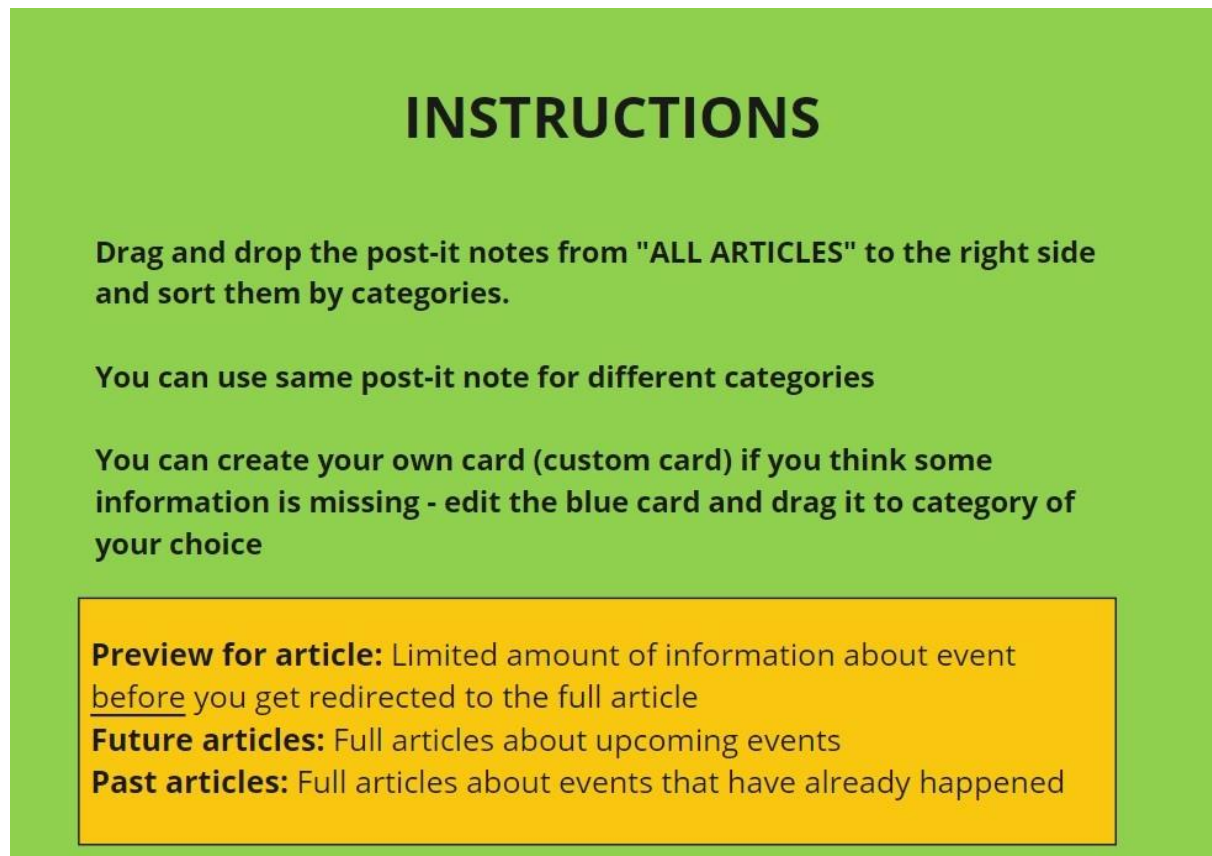


Figure 5

Short instructions were provided for user to accomplish the task given without much of a supervision. (Figure 6)



INSTRUCTIONS

Drag and drop the post-it notes from "ALL ARTICLES" to the right side and sort them by categories.

You can use same post-it note for different categories

You can create your own card (custom card) if you think some information is missing - edit the blue card and drag it to category of your choice

Preview for article: Limited amount of information about event before you get redirected to the full article

Future articles: Full articles about upcoming events

Past articles: Full articles about events that have already happened

Figure 6

The only information related to the users was to read the instructions and take their time sorting the cards. On a side note, a potential problem of not limiting the time they have is that they could either rush through it without making any revisions or taking too much time. In the case of “User 2 - T” (Figure 10), after about 20 minutes of sorting their expression was “I am just starting now...” and wanted to be sure of their answer even though they were told that there is no right or wrong answer.

After reviewing the results from the 12 users, almost every single **atom** was picked for the different categories. A delimiter was needed so that it can be displayed the proper amount of content per category. The delimiter was set to 50% (a minimum of 50% of the users should have

picked the **atom** in order for the information to be displayed) (Shanshan M, 2010, step 3). The number was picked based on the first category “Preview for article” where the top 6 cards were picked more from more than 50% of the users. It has been decided to apply this percentile for the remaining categories as well. (Figure 7)

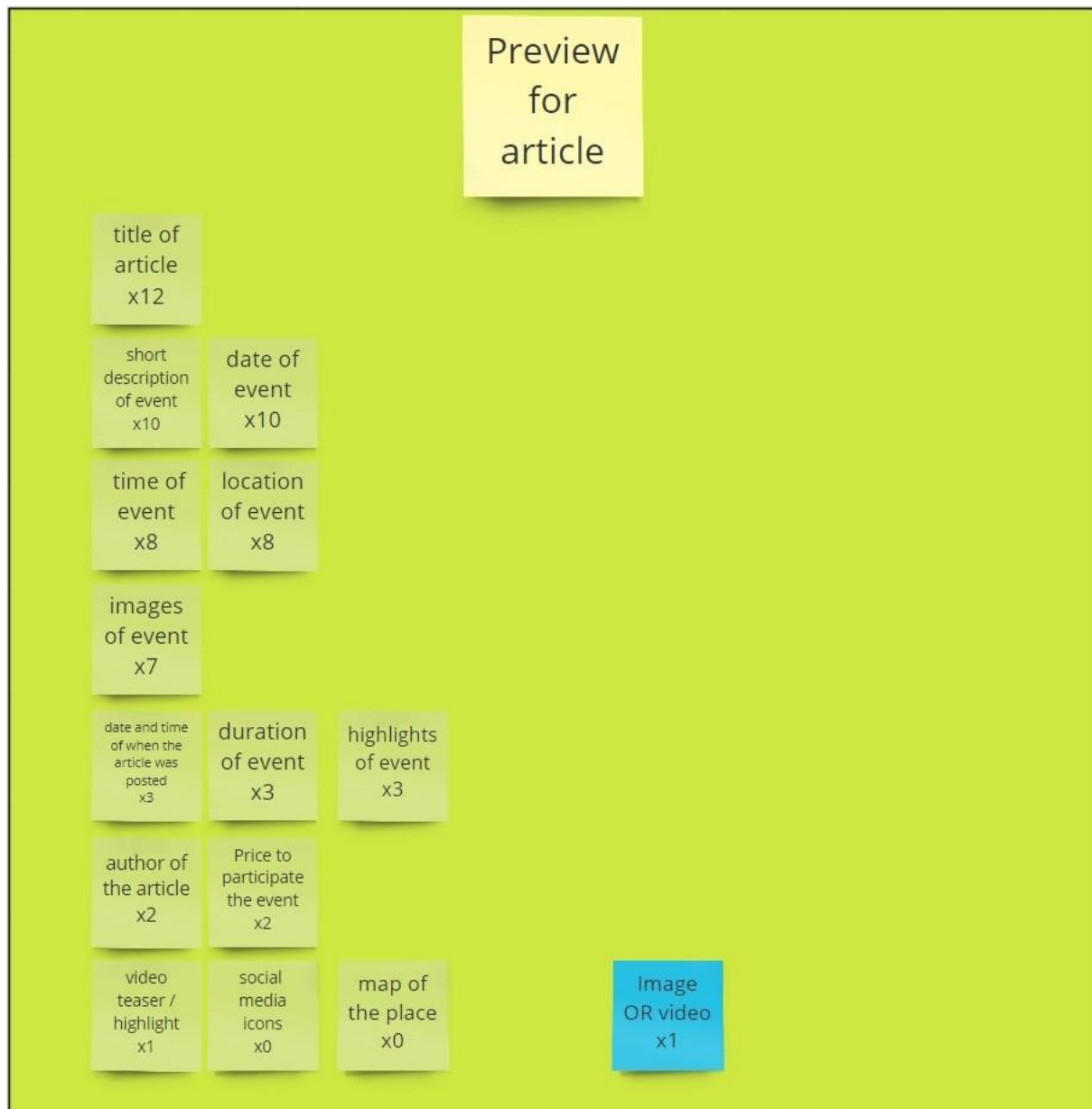


Figure 7

(figure 3)

Upon testing the percentile for the “Future articles” category, the only left-out atom was the “highlights of event” with $\sim 42\%$ pick rate. It is believed that this percentage is due to the fact that you cannot have highlights of an event before it actually happens, but it wasn’t really specified what type of highlights they are. (Figure 8)

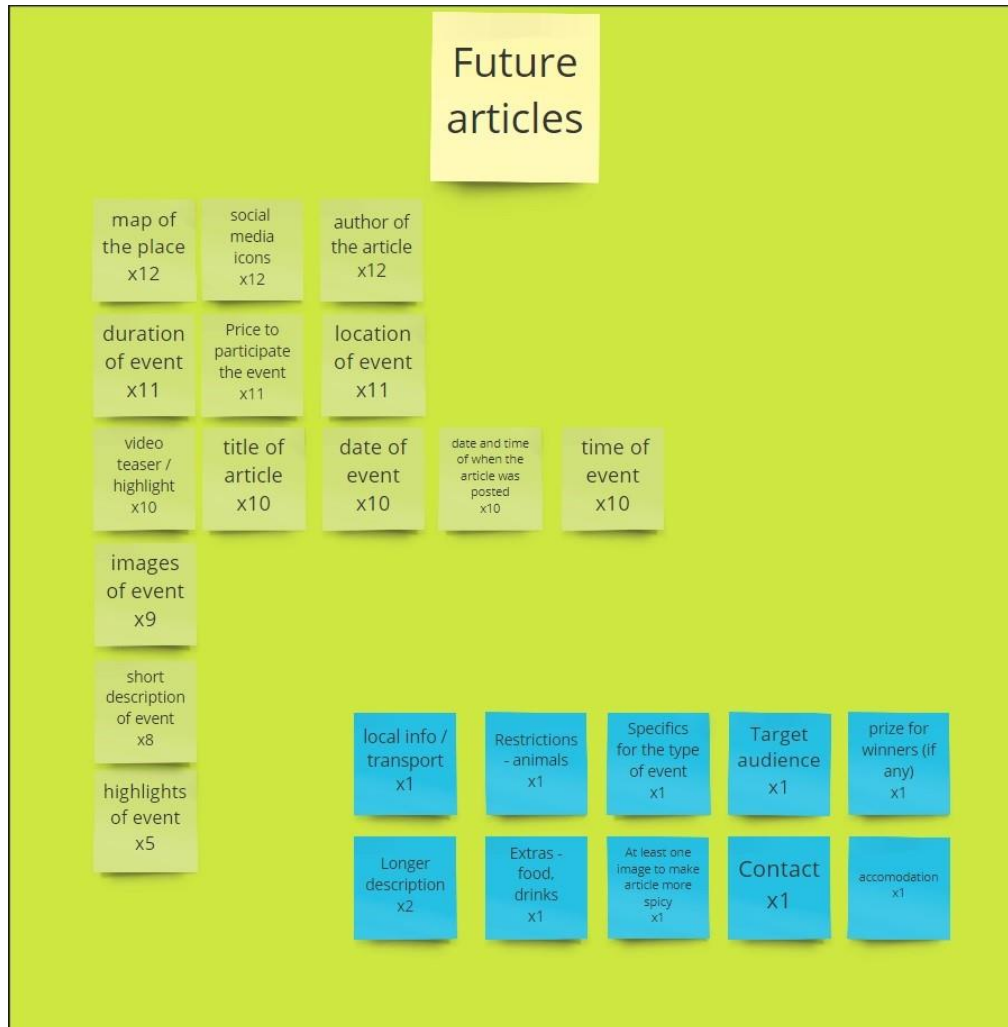


Figure 8

(figure 4)

The last category “Past articles” proved to have a few atoms left out due to the delimiter. Atoms such as “short description of event”, “price to participate in the event” and “map of the place” proved to be redundant information for the users due to the fact that it is irrelevant for them to know it (e.g. the price of an event that the user cannot participate into).

Starting from the “Preview...” category, the most picked is the “title of article” with 100% followed by a “short description of event” and the “date of event” with ~83% pick rate. From this information it can be gained what is the most important piece of information for the user at first glance and should focus on making it visually impactful for them to notice going forward with the design. From the atoms which made the cut for the preview, the least prominent is the “images of event” atom which likely suggests that even if there were pictures, they wouldn’t be focusing on them as much as other types of data.

About the “Future articles” or also known as “Upcoming events”, the top 3 pieces of data the users have selected are “map of the place”, “social media icons” and “author of the article” with a 100% pick rate. What can be took from this is that information that was previously important for the user such as the title of the event is now less relevant for them once they have opened the event page and would rather see different type of information as the most important one.

The final category “Past articles”, once again follows the trend of having a different type of information as the most important one being the “date and time of when the article was posted” and “images of event” with 100% pick rate. What can be took from this is that users would visit such pages to see pictures from an event that has already happened and experience it themselves through visuals. This information is particularly important when it is been discussed annually recurring events such as “Oktoberfest”. People may be drawn and more prone to participate into an event if they can see what it was like the last time. (Figure 9)

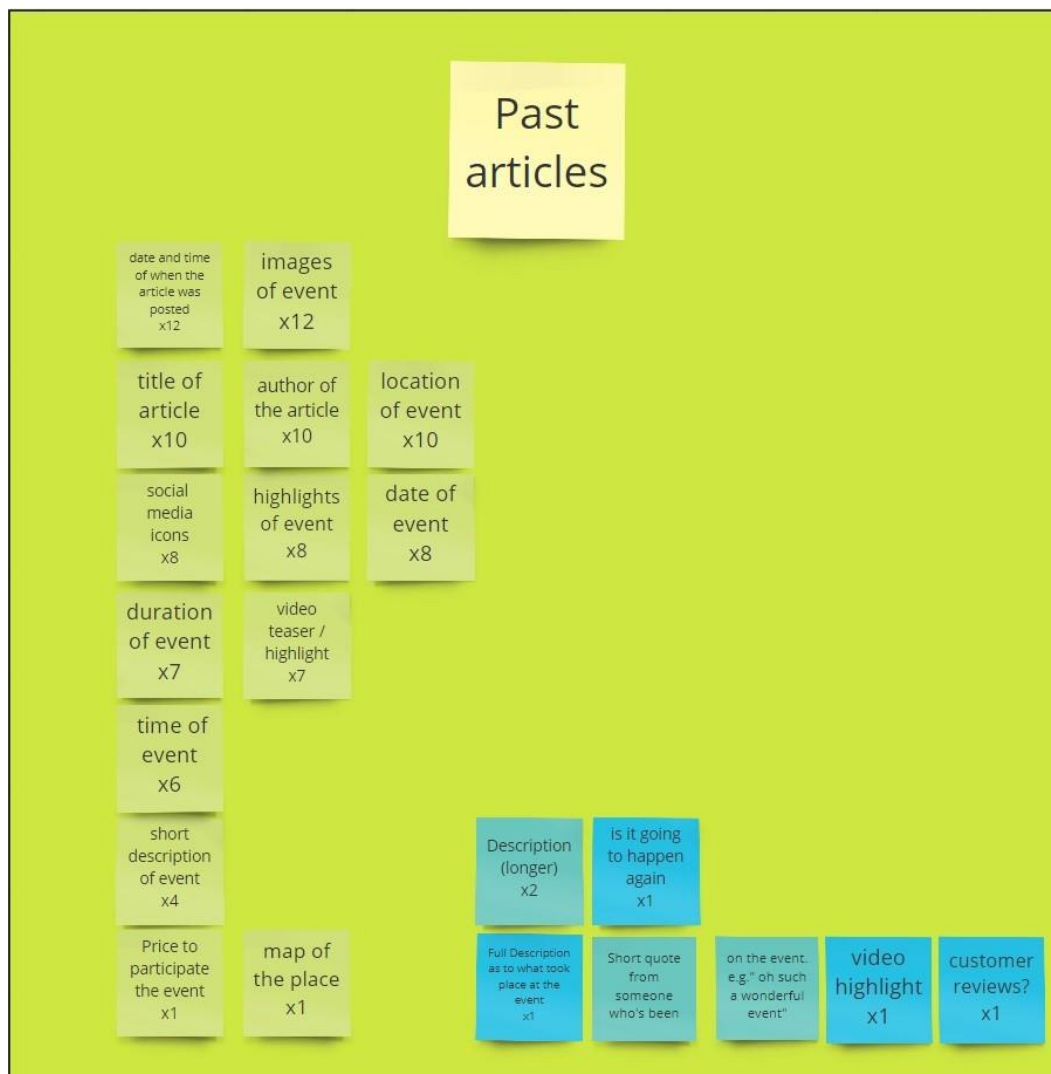


Figure 9

To recapitulate, from the performed card sorting, it became clear that users expect different types of information for different types of purposes. There is a distinct difference between the 3 categories that have been pre-determined, and users acknowledged those differences. This helped to reach a certain mental template of how each page should look.

It can be noticed that none of the blue cards presented as “Custom Cards” were addressed. This is because it has been decided to benchmark the blue cards against other businesses and see if any of them are relevant for the type of information to be displayed and if they fit the scope to begin with. (Figure 10)

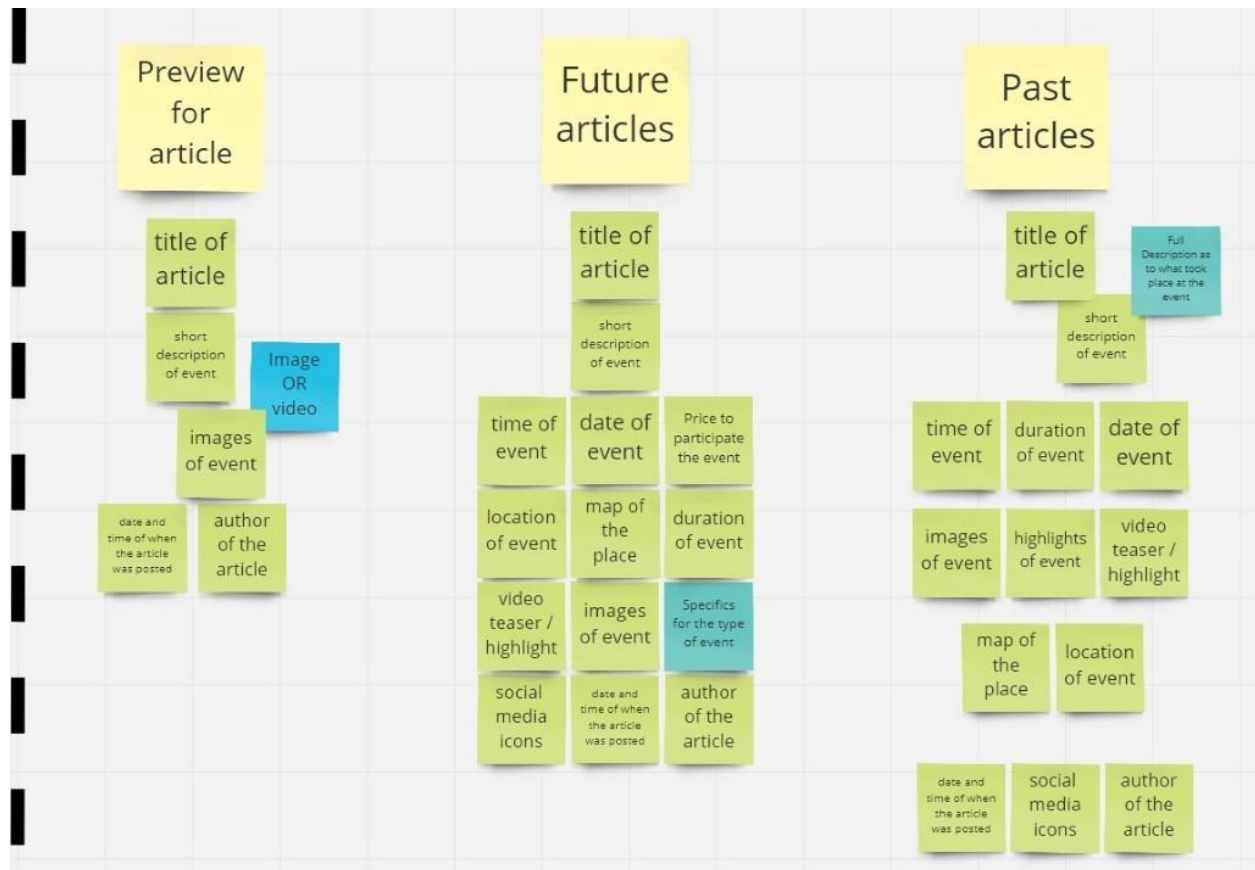


Figure 10

6.7. Benchmarking

Competitor benchmarking is performed against other three sport and events related websites. The main purpose is to conduct an evaluation that makes it easy to compare one product or service

with another. (Allen and Chudley, 2012) It is primarily aimed to benchmark the visual design, the management of content and define design patterns of these websites.

Since the concept that the client provided is not commonly seen, there is not obvious market leader that the website can be compared to. Instead, it was looked for websites that has a good visual representation of sports or events.

Philip Kotler's 7-step model is used as a starting point to conduct the research, but the steps won't be followed chronologically since it is worked with modified benchmarking. First, it is determined which functions to compare, then identify the best-practice companies, collect data, analyze and implement and monitor results.

More specifically, it has been decided to analyze **the clarity of “call to action”, visual communication, clear identity and trust in the company as well as common design patterns.** The **first website** that is chosen for comparison is the website of one the most famous European football clubs - FC Bayern Munich. The website was picked because it is a strong representative of a sport community. What was found out is that they have clear visual identity since they use red color which is characteristic of their team. The color is used for almost all elements in the website which promotes consistency and leads to building trust with the user by keeping the same color pattern. Also, it can be noticed that their color palette is based on their logo. (Figure 11)

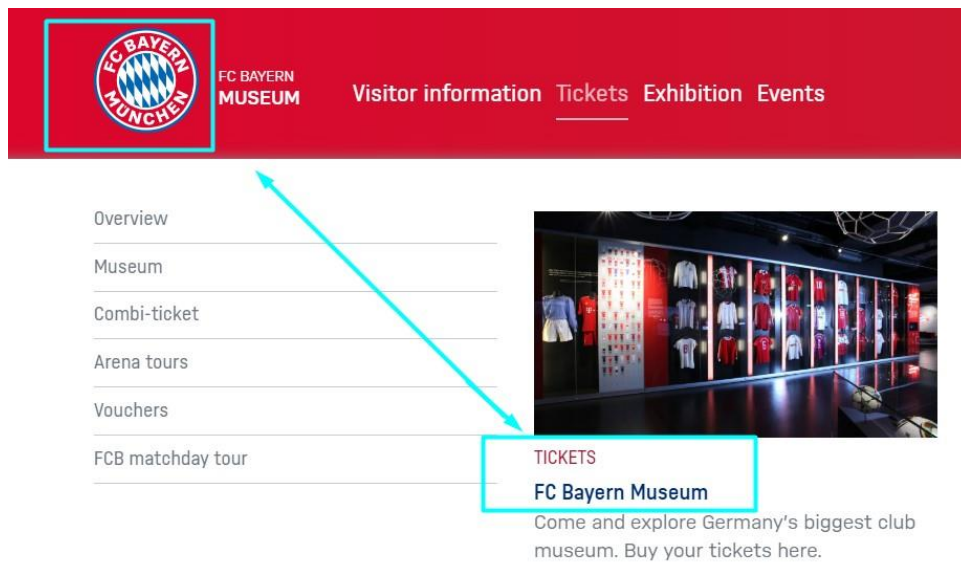


Figure 11

However, there are no clear call to action buttons which attract the user's attention because they don't have contrast compared to the rest of the elements on the page. (Figure 12)

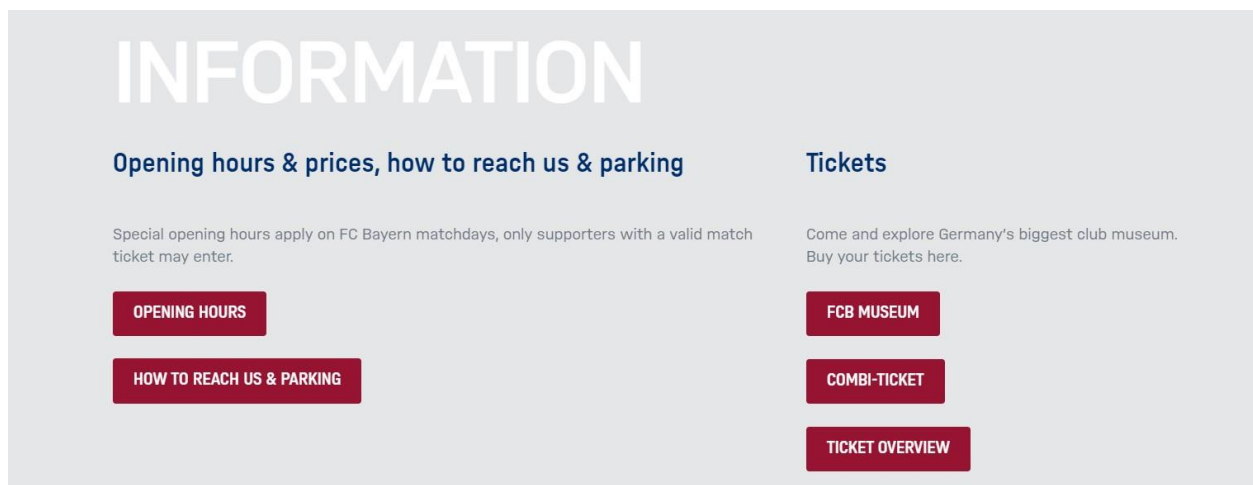


Figure 12

What the designers of the website are good at is the use of design patterns for displaying preview of articles as well as the articles themselves. They also give enough information to intrigue the user and makes him/them want to read more- also known as “bite, snack, meal” strategy of writing and presenting content. (Figure 13)

NEWS



Figure 13

The second website that was compared is a good representor of news article platform for sport events. What can be outlined is that the website promotes consistency because they have a primary color for highlighting the important labels throughout all pages. (Figure 14)

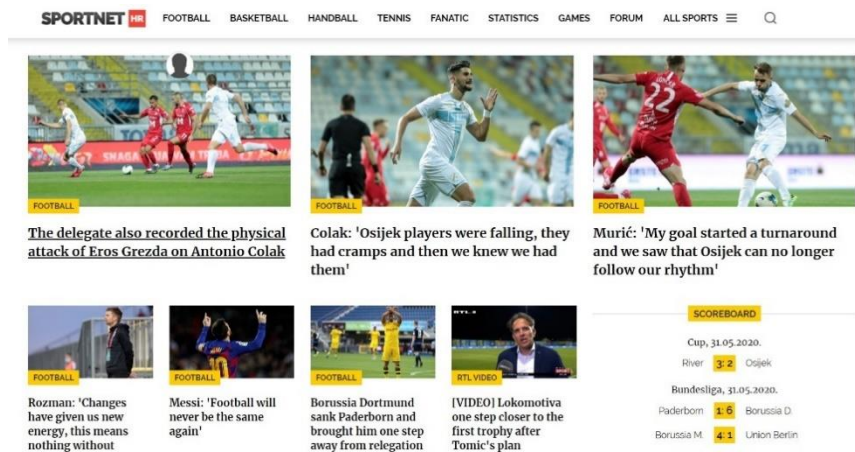


Figure 14

Also, they keep the same design patterns for displaying articles for all types of sport.

Nevertheless, there are no contrast colors between different elements, so the visual hierarchy is not enhanced and that leads to weak call-to-action and overall interaction, since all elements are perceived as equal. (Figure 14) What can also be noticed is that the single article page has no dead end and it always shows more and more related content which makes the user stay in the website more (in best case scenario). (Figure 15)

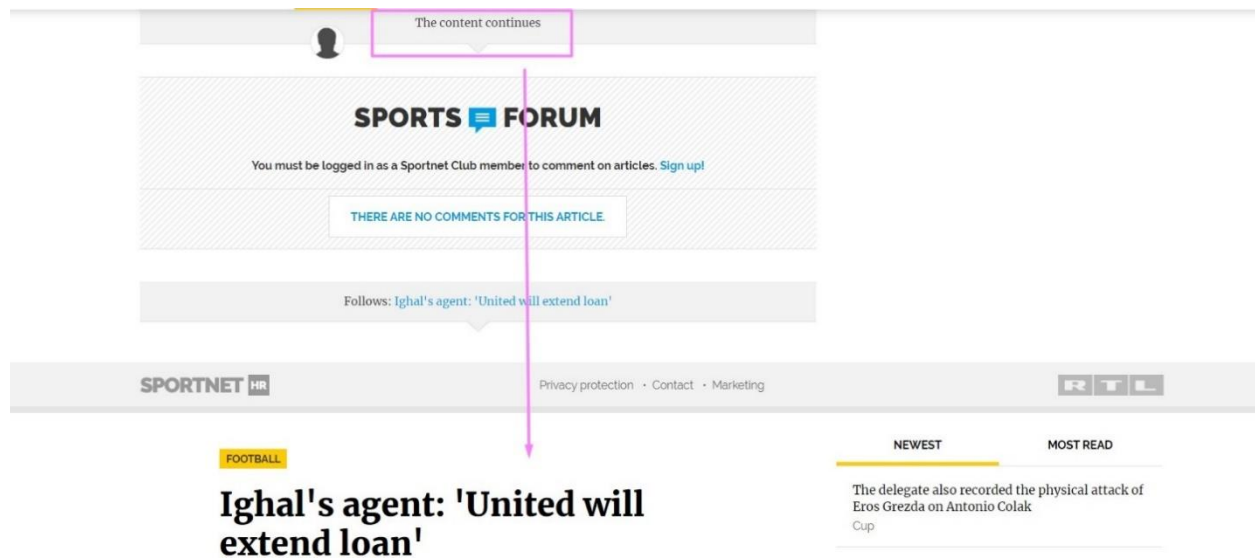


Figure 15

When looking at structuring and presentation of content, what can be noticed is that in the article the most interesting pieces of data are bolded, and different topics are highlighted with the prime color so that they pop out more. This helps the user to skim through the article and get the most important piece of information. (Figure 16)

Considering the whole situation around the coronavirus pandemic and the interrupted season in the NBA league, the NBA draft has been postponed, which according to the American media should take place in September ...

This year's NBA draft was supposed to be held on June 25, but it is clear that it will be moved, so the American media came to the information that the league has a new date as the goal of holding the draft on September 25.

The NBA season is still interrupted and now the goal is to continue it from July 31 in Orlando, where all games would be held in a still unknown format. A decision on that should be made next week, and then it will be possible to discuss a new draft date.

The players had the original deadline for withdrawing their application for the draft on June 3, but that date was also moved, and a new deadline was not announced.

A lot of that is still unclear, the question is when the free agency will be opened, and according to the latest information, it should happen before the NBA draft. 



Figure 16

Regarding the criteria for building trust with the customer, it can be alleged that they keep the whole website consistent, with same design patterns and colors which promotes trustworthiness and makes the website identifiable.

To summarize, the negative outcome that was indicated in both pages is that the call-action buttons are either not existing or they don't stand out compared to the rest of the elements which can lead to undesirable results. Yet, the pages keep their structure consistent for presenting content and their colors for different elements and by doing that, they can build strong trust with the user. The first representative used colors to express their core value, and to be more exact- the color of their team. This is an aspect that it will be looked through in the current project because it is tried to build identity of the organization. Moreover, the structure of the content needs to be

consistent as well and since there is a lot of information presented, the highlights need to be provided so that the user can skim through the article and get the essence. For the current project it will be worked on the content creation by using different techniques and principle so that the data is perceived as well as possible. Another positive feature that the second representative has is the endless content generation which keeps the user spending more time on the website.

7. Problem solution

7.1. Prototyping

The following phase of creating the website is prototyping where it is gone through four iterative steps - **prioritize, create, review** and **react**. This development method is used so that the of risk of possible issues that may occur before making final decisions is reduced. In order to avoid performing the tests poorly, the objectives will be clearly predefined before the iteration begins.

7.1.1. Iteration 1

Scope of iteration:

The objective of the first iteration is to test the **Information Architecture** as it is part of the main focus of the project. Mobile first design has been acquired which is using “progressive enhancement” as a basis since more elements will be added as the screen size increases and is content-first oriented. (A Hands-On Guide to Mobile-First Design, 2020)

IA

A sitemap is created in order to get a clear overview of the webpage’s structure. (Figure 17) The website pattern is hierarchical where there is a top level and sublevels which the user can navigate from. In two of the labels, filter is introduced which implements classification schemes for time and tasks/topic so that the user can adjusted based on his/her preferences.

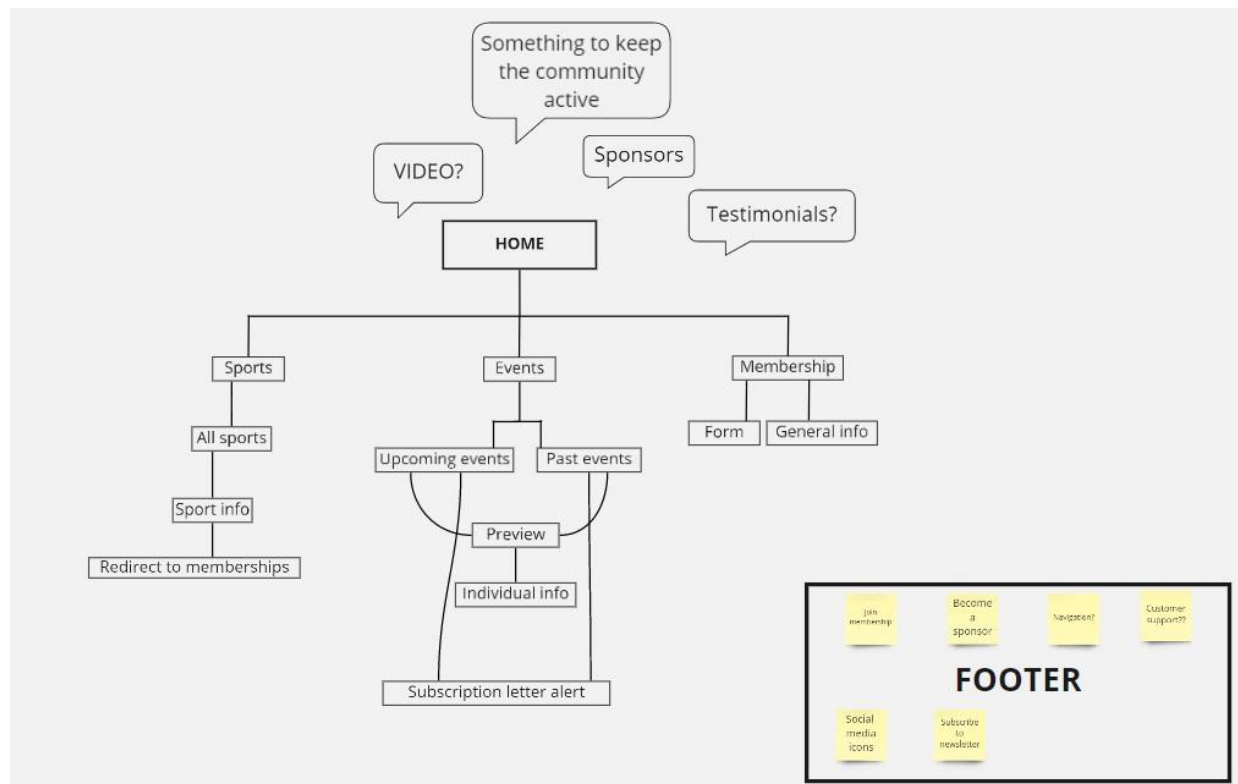


Figure 17

Since the two target groups that the website has are tourists who come for holiday and attend events or local people who are part of community, it is decided for the website to have two pages mutually relevant for the two groups. First one is **Sports**, where the users can find all the sports, they can engage in. Diving deeper into the layers of the page, the user can find information for specific sport such as place he/she can practice and how many days per week/month. These pages are all linked to membership page since the users are prompted to join the community.

Next is the Event page which is split in two pages - **Upcoming and Past events**. The reason behind it is that these pages are expected to be visited for different reasons. “Upcoming events” page is anticipated to be seen primarily from tourists who know when they will visit Blokhuis and

want to check the events going around during that period. Other than that, it also helps the local people get the overview on what's going to happen near them soon.

Regarding “Past events” page, the people might get inspiration to attend more events by reading story from past event, see highlights and be presented to images or videos. Also, they can get informed about the scope of events that are reoccurring and have general notion of what it would be if they were there.

When user opens an article, besides description of the upcoming/past event they are prompted to subscribe for newsletter. This feature is introduced with the purpose of creating a community and people staying in the loop throughout the year and be informed. In long term, tourists might want to get seasonal offers for events, so they can plan their holiday. Another feature added to these pages is filtering, which allow the user to narrow down the scope of the articles. For upcoming events there are two filtering options introduced. First one is to choose a month because visitors can plan their holidays and want to see what is happening for that month in Blokhuis as mentioned previously. The other one is categories with events of different nature from which people can sort them out.

The third page is **Membership** where users can see the benefits of joining the community and membership form. There are also three blocks consisting of statistical information about the prosperity of the organization. The purpose of creating these blocks is going to be explained in upcoming sections.

Regarding the prioritization of content and structure on landing page, it has been decided to put the slogan and values of the organization (*“More than a community, a family for everyone”*) as well as what the company is offering. Next section is a preview of few upcoming events because this part is relevant for both target groups and one of the biggest purposes of the website is to promote these events. The following section is a preview for sports that people can buy membership for and each box redirects to a page with specific data about the sports. In order to

build empathy with people and gain trust, a few testimonials are displayed with positive feedback from experiences people had. After presenting what opportunities people have in front of them (sport categories), there is a message box prompting the user to become a member which redirects to the page with more detailed information about the membership. In case the user still hasn't dug into some of the pages after these sections, the next one is for past events where he/she can read more about how the event went, the scope of it and the positive experience of it. The last part of the landing page is newsletter box prompting the user to sign up for it with email. This feature is introduced with the purpose of creating a community and people staying in the loop throughout the year and be informed. Also, tourist might want to know what they can expect for the upcoming season and plan their trip better.

For creation of IA there are several principles that are implemented so it is made sure people can relate to the content and functionality contained in the structure. (Brown, 2010)

First is the principle of choices which is used to create meaningful choices to users, by keeping range of relevant choices available focused on a specific task. It is done by spreading out the information because that helps to shorten the list of choices, at least at the upper levels of the hierarchy. In the case of Blokhuis Sport and Events, it is implemented by putting relevant articles in some of the pages which makes the user focus on reading more.

Second principle that is implemented is the principle of disclosure. It is used on landing page, where it is displayed only a short piece for information for each item of the navigation. Yet the information is enough to inform the user what he will see as he digs deeper. That also helped to think about layering the information in different levels.

The third principle that is applied is the principle of exemplars which describes the contents of categories by showing examples of the content. In the case of Blokhuis Sport and Events, it is used to present the different sports both on landing page as preview as well as the separate page

because by showing examples a better understanding might provide rather than any straight description. Also, it shortens the time the user spends to skim through the page.

The last principle is the principle of growth which is based on assumptions that the content one has today is a small fraction of the content you will have tomorrow. In the case of the current project the content will be constantly growing because it is based on events happening all the time. It is hard to predict how much more content there will be or what type of content is expected because it is new concept with none-existing previous website. Because of that, for now the focus will be on it by adding different types of content to existing categories and aiming to structure them functionally for the user.

Content

When creating the content, the strategy inspired by Schultz Jørgensen is followed, which separates the content on three levels. The first one is the strategic level where the vision, mission and values lay as well as the core strategy. This is a salient factor for Blokhus Sport and Events since the organization is trying to build identity and be recognized as a brand. The tactical level (the plan for the content) is the next one where the strategy is translated into messages and topics. And last, the operational level (performance) refers to tangible elements, organizing, maintenance and production considered in the long term. (Schultz Jørgensen, 2012)

In order to have more influence on the users, social proof (also known as modes of persuasion) is used to make them perform in an exact behavior. It also helps to determine what is good behavior on a given website and is thus crucial for getting first-time users started. In the case of Blokhus Sport and Events, it is communicated with statistics which refers to **logos** and it builds trust with the user. However, **pathos** (also known as appeal to emotion) is a way of convincing the users of an argument by creating an emotional response to a convincing story therefore few testimonials are listed on the landing page of people who like the community because this can burst positive mindset and motivation for other people to join. (Social-proof, 2020) (Figure 18, Figure 19)



Figure 18

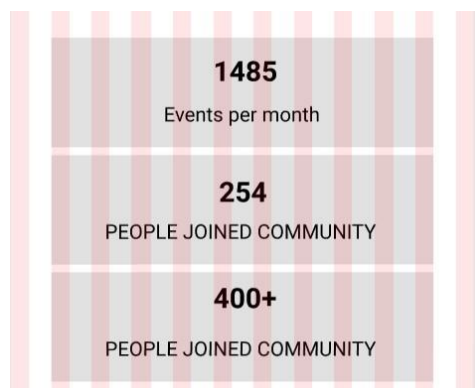


Figure 19

Process

The process started off by creating content inventory which enabled to see how much information there is and how much space it would take to present it on the web page. The next step is to create wireframes that don't have distracting details such as styling, colors, typography and graphic elements but is used to visualize the hierarchy and structure of different pages when it comes to things like content and functionality as well. Regarding the level of detail about content, taxonomies, categories and some titles were created. (Figure 20)

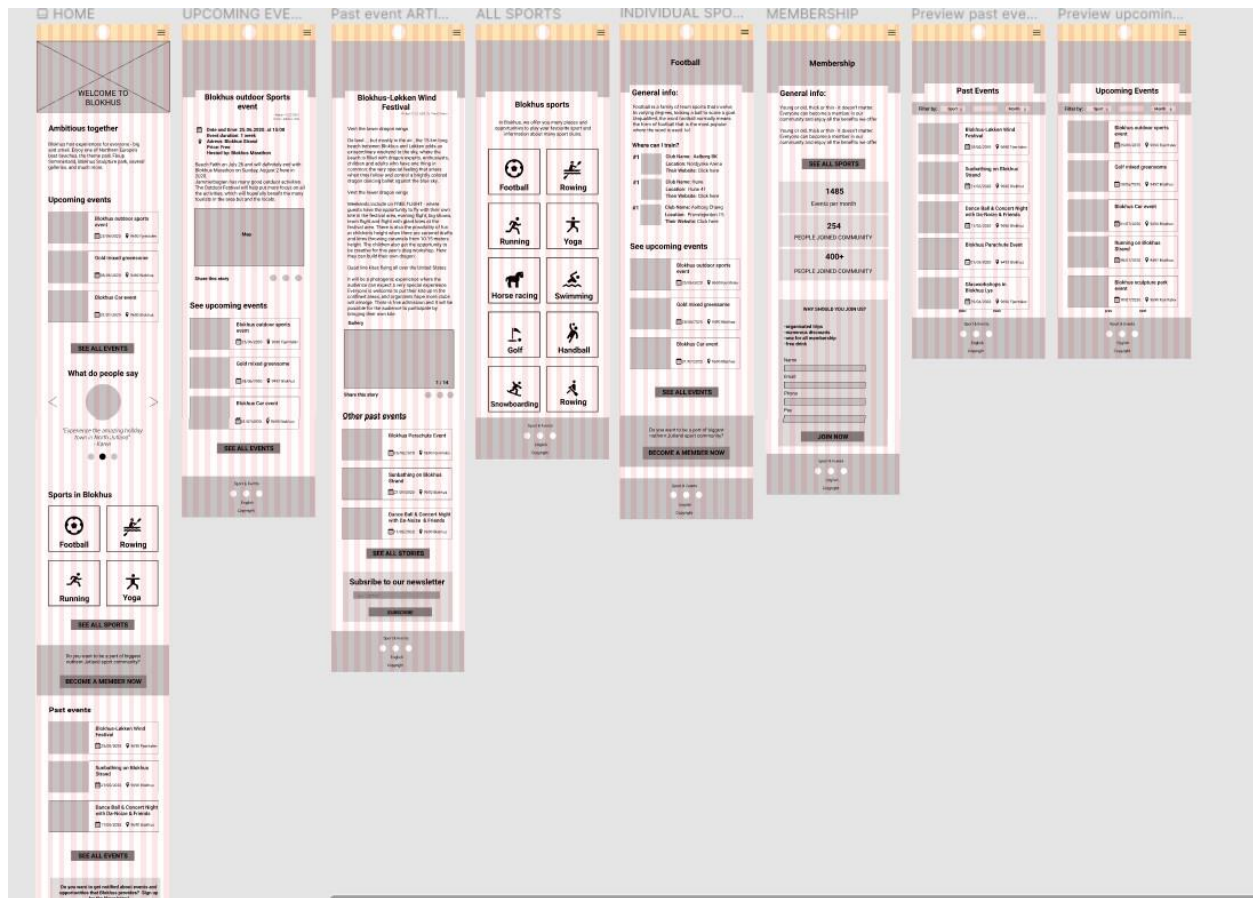


Figure 20

Testing

The next step is to test IA by performing think-aloud test with four users. They are asked questions on a low-fidelity prototype focused on the way of navigating between pages. The aim is to find out how fast people can get from one page to another, in what way they are doing it and their thoughts and confusions.

After analyzing the results from the tests, it is noticeable that some of the questions made the users confused, some of them were due to low-fidelity prototype, and some because of flaws in IA. It is realized that some of the users get confused when they are asked to check price for event in specific sport; users tend to go to membership page with expectation to find all prices listed there or to the page about the sport where they can only see information about where they can do that sport. Another task that made users confused was when they are asked to find a place where they can participate in a football team; some of the users click on the membership page, and then try another pages after they realize they can't find the information they are looking for. Last task where users had problems was when they are asked to look for one of the upcoming events; some of the users don't prefer accessing different pages through menu, but from the home page, and they got confused because the "preview articles" didn't seem to be clickable at first, they seemed just as a box with information about an event.

Based on the results from the user test the structure of some elements changed. "See all sports" button is added on the membership page that redirects users to the page with list of sports (Figure 21), few Related/Upcoming articles are added as a last section on the pages with information about sport (Figure 22) and lastly, "Read More" button is added at the bottom of each "preview article" which makes user know that they can see more information about it.(Figure 23)

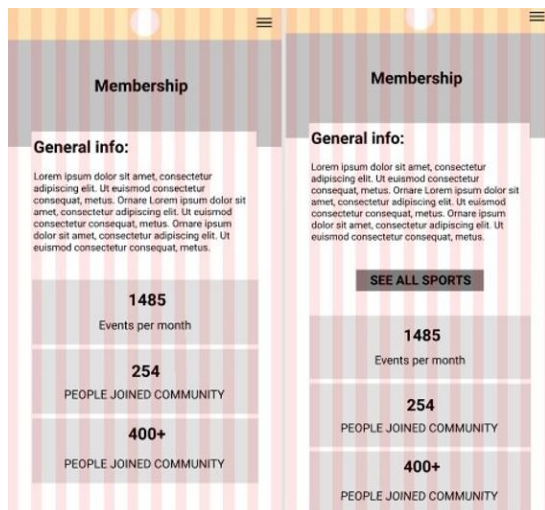


Figure 21

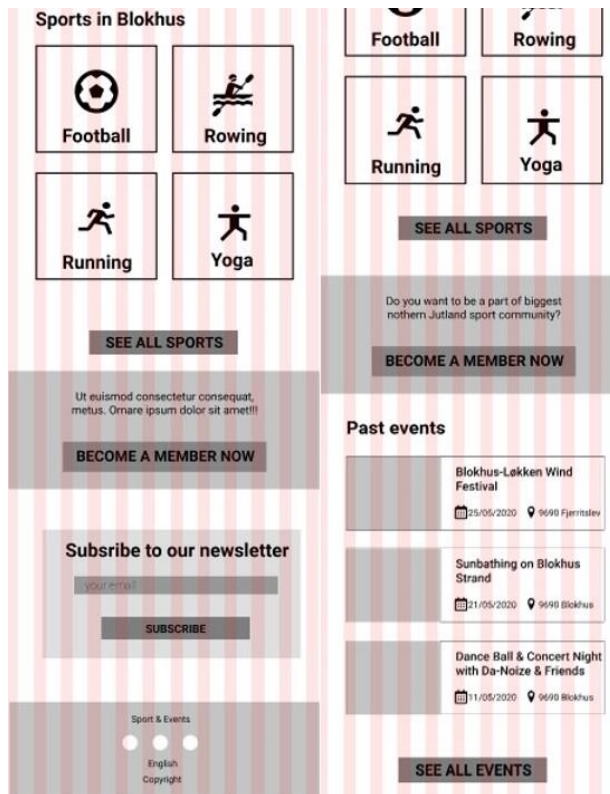


Figure 22



Figure 23

7.1.2. Iteration 2

Scope of iteration

After refining the first wireframe, it was proceeded to the second iteration which was high-fidelity mock-up for mobile device again. In the end of the iteration a 5-second test will be performed to test the labeling and the visual hierarchy of the pages. (Figure 24)

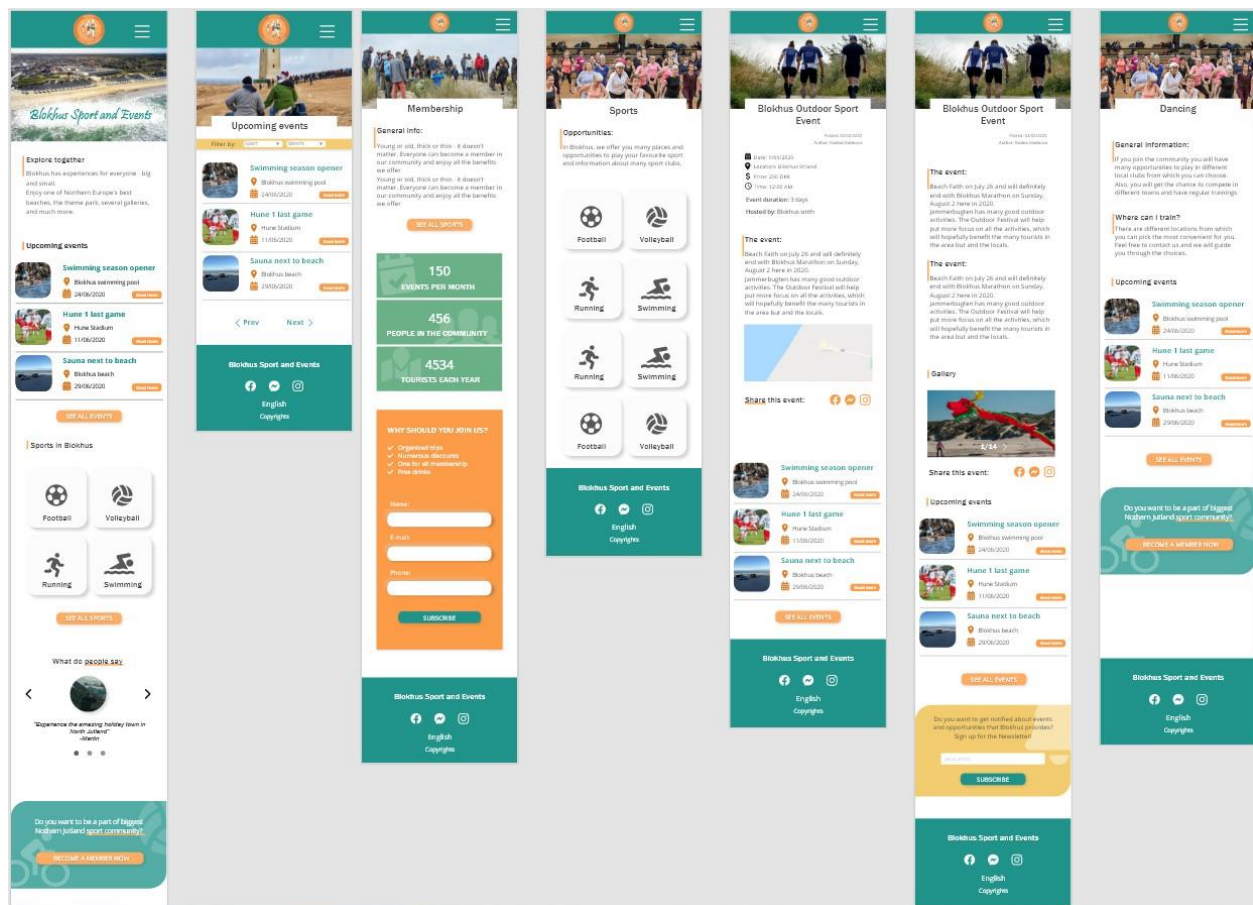


Figure 24

Design

For the development of the website for Blokhus Sport and Events, it has been decided to work with **atomic design** to build the pages because it makes the layout consistent and easy to understand. Also, when it comes to coding, the code will be much easier to be read by other developer if the client decides to continue working on the project with another team.

Firstly, it was started off by considering the atoms that are going to be used such as buttons, labels, inputs and icons. For instance (Figure 25)

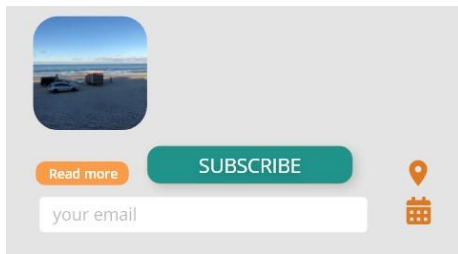


Figure 25

Secondly, they were built up into simple molecules and they are going to be reused many times, which promotes functional and aesthetical consistency. (Figure 26)



Figure 26

With combining them in sections, the organisms were built. Furthermore, the organisms demonstrate those smaller, simpler components in action and serve as distinct patterns that can be used again and again. (Figure 27)

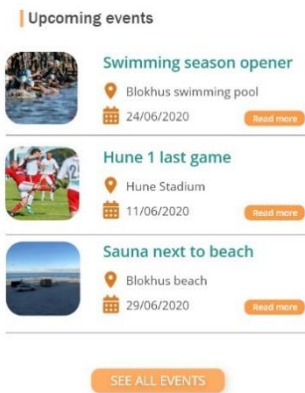


Figure 27

For the creation of these molecules and organisms relevant design patterns were investigated for this subdomain. Since a pattern is usually based on one or more design principles, they have proven solution to the problem, and can be reused in many ways.

Moreover, all the pages are kept with repetitive organisms which promotes **functional and aesthetical consistency**. The functional consistency enables the user to efficiently transfer knowledge to new contexts and focus attention on the relevant aspect of a task. The aesthetical consistency enhances the recognition, communicates membership and sets emotional expectations. This is an important aspect of building up the design because it is wanted to build a brand identity and recognition. (Lidwell, Butler and Holden, 2003, p.46)

It was understood from the meeting with the client that he wants the website to represent the Blokhuis and its beautiful scenery, forests, fine sand and sea. Thus, the **color palette** consists of colors which perception refers to these places. The colors also lay down on the color wheel and harmonized with each other. The logo also shares the same colors so that everything is kept consistent and build identity. (100 color combinations and how to apply them to your designs – Learn, 2020). However, each of the colors share different functional purpose. The orange color is used for all elements that make the user perform an action or interact in some way. For example, active navigation items and all buttons. Also, it used to highlight and emphasize the headline. Nevertheless, the green color is used for coloring the navigation or to present some sort of static information such as membership box or benefits of joining the community. There are some exceptions from these examples so that the page does not become monotonous. (Figure 28)



Figure 28

For the creation of the design, **content first method** was approached so that the focus is on structuring the information, usability of navigation flows, call to action and labelling. As it can be seen on the mockups, everywhere same images are used, and the text is the same also known as **proto content**. (Pillai, 2019)

Also, there are a few aspects of **visual hierarchy** that are taken into consideration. The **functionality** is put on first place because if the user interface is with badly structured content this can result in bad UX. **White space** is used to group and separate different UI components so they could create an effective layout. Negative space helps to emphasize particular elements that require closer attention from users. (Arhipova, 2020)

Readability and **legibility** are considered throughout the whole process of design building since it is aimed to deliver chunks of information and don't make the user get lost between the lines. The **line height** was set in order to make the layout more spacious and make the text more comprehensive and easier to read. When choosing **font families**, it was decided to combine three fonts in order to create contrast between the most meaningful and prominent elements which should be noticed first and ordinary text information. (Lidwell, Butler and Holden, 2003, p.162)

F-shaped scanning pattern is implemented in the design since it is the most common eye-scanning pattern for big amount of content. The user first scans a horizontal line and then moves

down and reads along the horizontal line which usually covers a shorter area. This aspect was taken into account so that important elements can be placed effectively to increase the perception and help users perform expected actions. The text is also aligned to the left because of the F-shape. (Arhipova, 2020) (Figure 29)

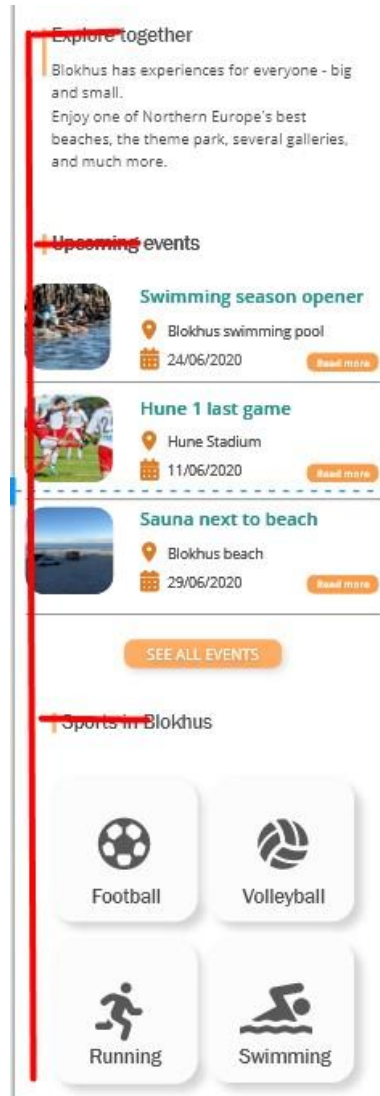


Figure 29

For creating **hierarchy of the content**, a border with color from the palette was used to highlight the headlines or important keywords and ease the eye-scanning of the page. Also, **highlighting** helped to create balance of the page by emphasizing on elements. (Figure 30, Figure 31)

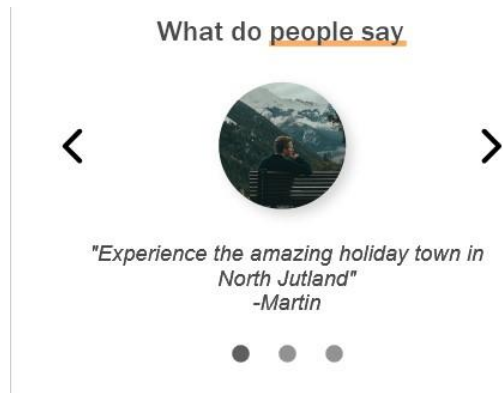


Figure 30

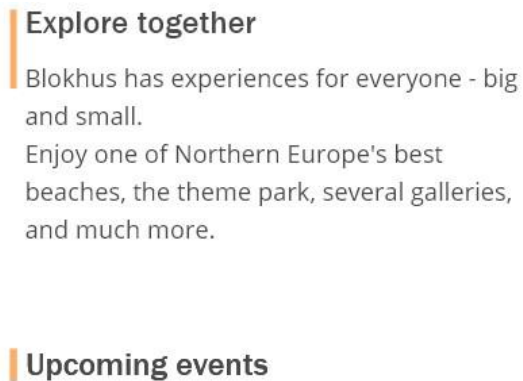


Figure 31

Another principle used to build the design of the website is **affordance**. It refers to the physical characteristics of an object and how it influences its function. For example, in the website it is created three-dimensional square for sports or button which leverages the knowledge of the physical characteristic of them, therefore, appears to afford pressing. (Lidwell, Butler and Holden, 2003, p.20) (Figure 32)

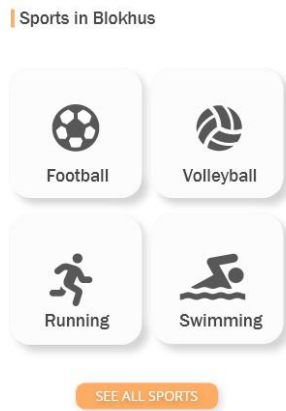


Figure 32

Gestalt principles explores users' visual perception of elements in relation to each other and there are several of them used in the visual design of the website. First one is **Closure**, which is a technique based on the human eye's tendency to see closed shapes. Closure works where an object is incomplete, but the user perceives it as a full shape by filling in the missing parts. (Figure 33)



Figure 33

The next one is **proximity** which is about perceiving elements as a group when they are close to each other. It is used for each section where the different elements are grouped together (example). (Ahripova, 2020) (Figure 34)

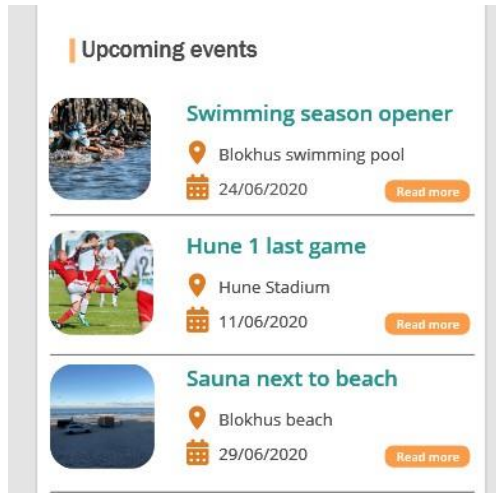


Figure 34

Behavioral psychology has found that users are drawn to look where a set of eyes in a photo are looking or there are some guiding lines showing the way the user should follow. (Figure 35)



Figure 35

For the structure of some pages, the most influential patterns used is the **Fibonacci sequence** because it involves rhythm and harmony. (Lidwell, Butler and Holden, 2003, p.72) (Figure 36)

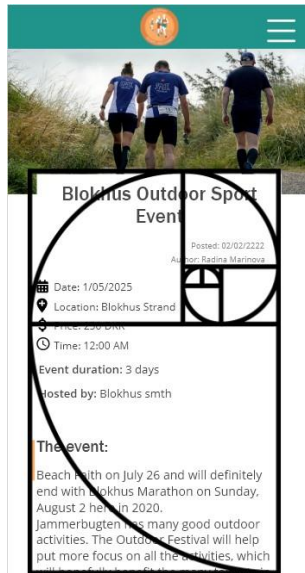


Figure 36

However, **iconic representation** is a principle used to improve the recognition. In this case it is used symbolic icons that includes images representing an action, object, or concept at a higher level of abstraction. They are effective when actions, objects because the concepts involve well-established and easily recognizable objects such as sports. (Lidwell, Butler and Holden, 2003, p.110) (Figure 37)

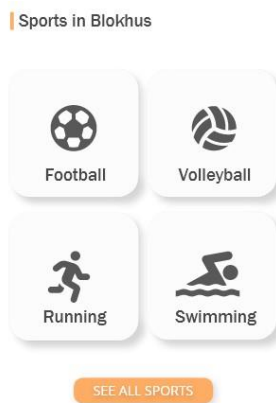


Figure 37

Testing

After the process is done, 5-second user test has been performed to test if the headlines were visible enough and if people get what the page is about by looking through it. Also, the visual hierarchy has been tested to see which elements are remembered and can be recalled. The outcome was that people remember the articles because of the icons and the coloring. Moreover, the majority get the main purpose of the page by looking at the article, which confirms that the labelling is appropriate. (Figure 38)



Figure 38

7.1.3. Iteration 3

In the third iteration the tablet and desktop version of the website have been developed. The new structure introduces some changes of the design and layering the information in different ways. In the end of the iteration, 5-second user test will be performed to test the visual hierarchy of the website as well.

When the process of developing the two versions started, it has been decided to add short description to the articles because there is more space to be filled with information. As it is mentioned in the previous iteration, that it is worked with **progressive disclosure** for layering the information, this also refers to the design because it keeps display clean and uncluttered and helps the user manage complexity without becoming confused, frustrated or disoriented. (Lidwell, Butler and Holden, 2003, p.154)

However, on the computer version of the website the articles are structured following the concept of **“Think ‘bite, snack, meal”**. It is a meal method of chunking content for the web and it will make the user’s curiosity grow bigger and bigger until he ends up at the meal. Bite, which is the headline/the link it gives a clue what the article is about but written in a way the user gets interested and continues reading the description of the article. Snack, which is the brief summary/key message, has the purpose to give more information to the users and also serves as a mean to raise curiosity in the user. The same text is used in the article itself when the user opens it so it feels more like he can continue reading the text that he has begun. Meal in the current solution consists of the details-the page that you are redirected from the landing page. (Redish, J., 2012, p.134-136). (Figure 39, Figure 40)

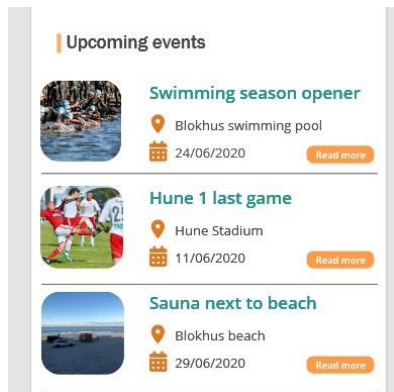


Figure 39



Figure 40

In the process of third iteration, it has been realized that the current color palette is not conveying the wanted feeling of the sea, fine sand and overall mood of Denmark. After considerations, it has been decided to switch to other color palette in which the green color is changed into blue, first because it represents the sea but also the color is considered to promote trustworthiness. The orange color is altered into sand color in order to look more pastel rather than high contrast. (Figure 41)

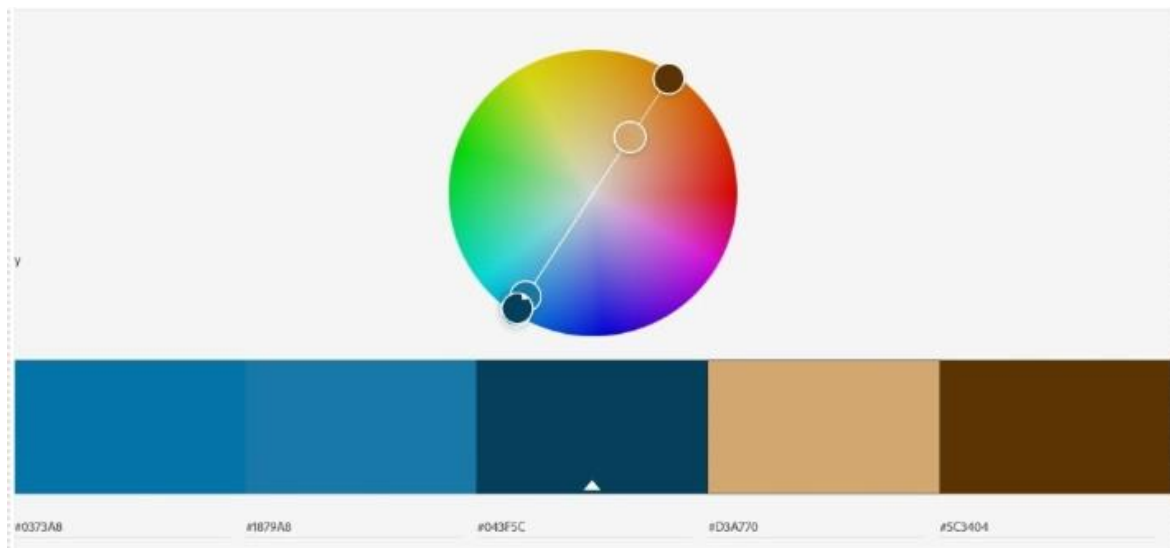


Figure 41

It has also been also paid close attention to the **interaction design** as much as possible so that the website is dynamic and interactive with the users. Testimonials are interactive since the people can switch between different testimonials by using arrows on mobile version. (Figure 42)



Figure 42

Also, the user triggers the elements to appear on scroll which contributes to the dynamic of the website. Furthermore, in past articles people can switch between images in the gallery section with arrows. (Figure 43)

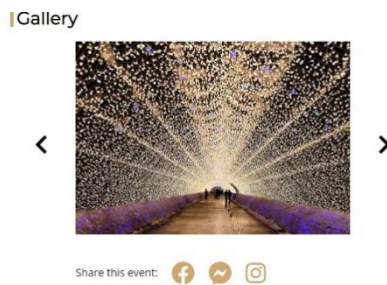


Figure 43

Another interactive element of the interface is the newsletter box where on click of the button for subscribing, the user gets confirmation message popping up. (Figure 44)

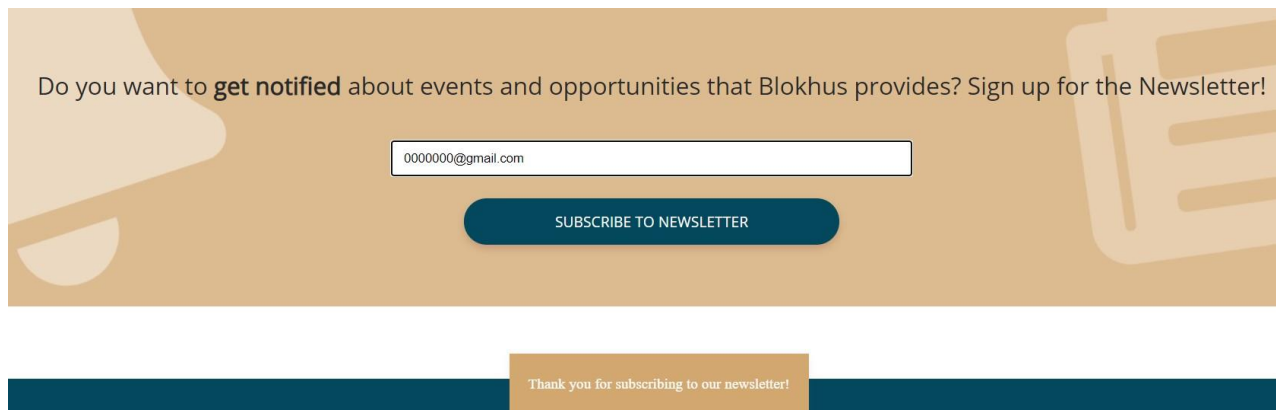


Figure 44

As part of interaction design some **micro interactions** have been added to the mock-ups such as hovering on the buttons which make them look like they are active and trigger the user to click on them. (Figure 45, Figure 46) Another micro interaction is the scroll, which is with a color from the palette so that the identity is shown.



Figure 45



Figure 46

Also, filters allow the user to customize his choice and pick the events he wants. (Figure 47)

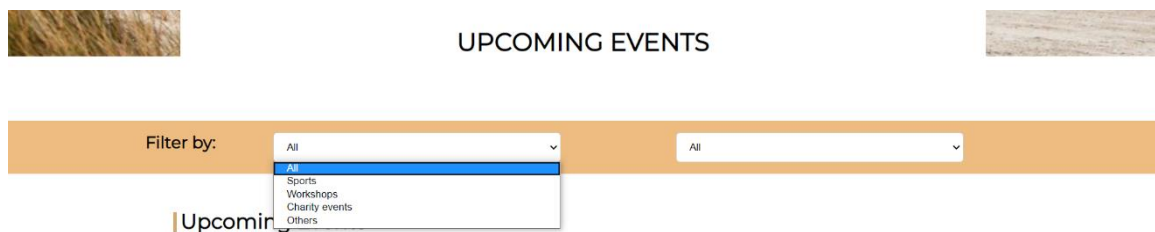


Figure 47

Regarding the **usability** of the website, it is looked into five aspects of it- learnability, efficiency, memorability, errors and satisfaction. For learnability and efficiency, it is considered how easy it is for the user to accomplish basic task the first time they encounter the website. Based on the think-aloud test performed in the first iteration, it has been analyzed that the time to accomplish the task is very short. However, this could be misleading data due to the fact that there were no visual components to distract the eye and increase the time to attain a task. The memorability and errors can be tested in the long-term perspective of the website's development. In order to enhance the satisfaction of the user, it is aimed to make the interaction design at high-level so that the users feel more involved with the website and decision making.

Testing

After finishing the high-fidelity mockups, it is proceeded to 5-second user test which is going to test the visual hierarchy of the website and more specifically the part of the landing page which the users first see when they open the page. (Figure 48)

After analyzing the results, it has become clear that people see first the image on the right. Since the testing doesn't allow to put video, it couldn't be performed thoroughly. So, in reality it draws even more attention because there are moving parts which draw the attention of the user.

However, on second place is the headline for Blohus Sport and Events which is the wanted outcome because it is intended for the user to see it right after the video. The headline "Explore together" is on third place on the visual hierarchy but not with a big difference in number with the first headline. Due to that fact, the size of it will be decreased to improve the visual hierarchy. The quote is the last element in the visual hierarchy which meet up with the set expectations.

(Figure 49, Figure 50)

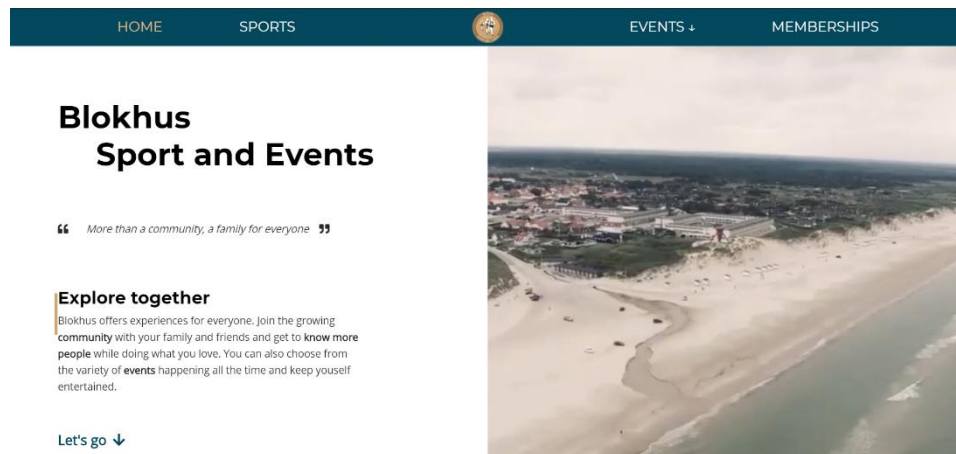


Figure 48



Figure 49

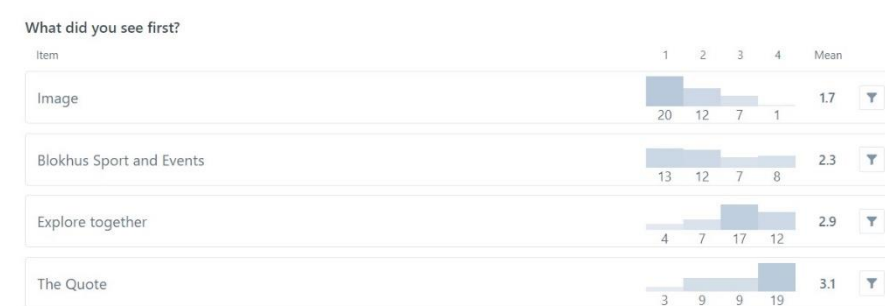


Figure 50

7.2. Coding

Before approaching the coding, a prioritization matrix was made to narrow down and prioritize specific elements and their importance on the site. As an example, connection of CMS to the site was done before tackling the aspect of figurative background on all pages. (Figure 51) The

greatest benefit of this matrix was to manage and allocate the time for each task as it was estimated before approaching the actual coding part

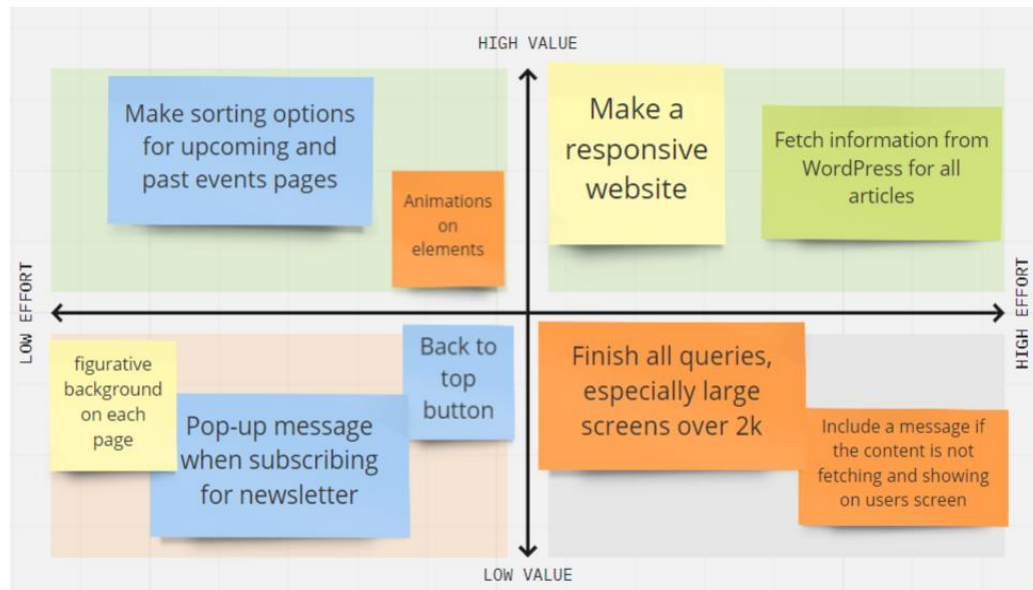


Figure 51

For the solution it was decided to use WordPress as one of the criteria that were determined from the client meeting. Since content needs to be added for each event, using WordPress as a CMS provides a robust platform on which content can be added seamlessly and very easily. Combining the headless CMS with JavaScript and CSS, the solution gained a consistent overall look but still having enough difference on each page to make the pages feel unique.

After the basis of HTML and CSS was done for all queries, the structure of the data that would go into the CMS was planned out and split into two categories: upcoming-events and past-events. This way the proper information could be displayed for both types of articles.

The final step of the coding process was to include SEO on each page. Meta tags were added to the head of the HTML covering the description of each page. The HTML was built using semantic tags such as sections, articles, images that also benefit the SEO.

8. Conclusion

The multimedia production provides solution to the issue that Blokhuis Sport and Events was having and more precisely none existing digital platform which was limiting potential revenue. It has been worked constantly with key theories and methods in order to deliver high-quality product. Combined with technical and design knowledge it provides high usability and SEO of the webpage. Also, the website is fully responsive to different screen sizes and devices. Impeccable IA has been developed which allows the content to grow way more than it is now since it is looked into the long perspective of using the page. The structure was built upon detailed user research which provided insight into the categorized user's needs. Throughout the whole process multiple user tests were performed in order to provide constant refinements. The website successfully conveys the feeling of being a visitor of Blokhuis and encourages more people to join the growing community.

9. Process reflection

Working on this project let us put in practice everything that we learned throughout the semester. It seemed like we have many tools to work with and we needed to decide which are the most appropriate for the project. The group felt natural and effective since it has been already worked together in previous projects and we could easily estimate the working pace of each one of us.

The prime factor that let us successfully finish the project was the time management. All the deadlines were strictly followed throughout the month. We managed to effectively work together, reflect on each other's ideas, prioritize and make final decisions. We managed to work distantly because we learned new collaborative tools such as Figma for the whole process of prototyping, Trello for presenting our tasks and time allocation and GitHub to work together for coding part.

Regarding our contact with the client, we tried to prepare as much questions as we can before our first meeting and at the beginning, we felt like we got all the answers we needed. But when we were getting more into the work process it seemed like the client still doesn't have clear vision of

the website and more meetings are needed. Overall, it was a great experience to work with our own client and get a feel of a possible workflow after we graduate.

What we improved from previous exam is that we successfully worked with file merging program - as mentioned Git Hub, because it was a big issue in previous exam project. We are self-proud of the ability to prioritize key theories, principles and methods given to us in order to build a product from start to finish.

10. Literature List

11. Appendixes

11.1. Project management

11.2. User Research

11.2. User Think-Aloud Test

11.3. Corporation agreement

EXPECTATIONS: What do we expect of one another with regard to turning up for lectures, participation in group work, work hours and time, etc.

- Since we do not have many lectures in preparation for exam, we expect each other to turn up for group meetings, actively participate and join the meetings with supervisors
- Everyone is responsible to complete their tasks in the agreed time frame
- Everyone is familiar with the structure of the project (chapter 4,5,6 on Portfolio and Project work)
- Every group member is expected to help others if needed

VALUES: What values are we emphasising and how will we ensure that we retain our focus on them?

*Meeting the deadlines and being professional in regard to our tasks, considering other group mate's opinions

HOW SHOULD THE GROUP WORK: Which rules do we agree can help us reach our target and fulfil our expectations?

What can we and must we – and what should we and must we not?

Setting the deadlines for several smaller tasks and having feedback from each other

We must listen to each other and discuss the ideas together and be objective

CONFLICT RESOLUTION AND CONSEQUENCES: How will we address and resolve conflicts?

How will we enforce the rules that we have agreed together and what will the consequences of breaking them be?

In a situation of a conflict we try to discuss it in a normal manner and develop a solution that suits everyone. In a situation of breaking the rules we expect the person to understand the fault and work further without repeating it.

We share these goals, expectations, values and rules and agree on how to enforce them.			
Name and signature:	Name and signature:	Name and signature:	Name and signature:
<i>Viktors Cebotarjovs</i>	<i>Radina Marinova</i>	<i>Antonio Jerkovic</i>	<i>Anton Markov</i>
			

11.4. Requirement Specifications

Software Requirements Specification

for

Blokhussport & Event

Version 1.0 approved

Prepared by:

Viktor Cebotarjov, Radina Marinova, Anton Markov, Antonio Jerkovic

Multimedia Design, mmdi0919, group202

10/05/2020

11.4.1. Introduction

11.4.1.1. Purpose

Requirement Specification for Version 1 of website for Blokhus Sports & Events. Purpose of the multimedia solution is to display information about upcoming and past events for different activities, memberships and sponsors of community in Blokhus.

11.4.1.2. Document Conventions

CMS – Content Management System

SRS – Software Requirement Specification

JS – JavaScript

HTML – Hypertext Markup Language

CSS – Cascading Style Sheet

IA – Information Architecture

SEO – Search Engine Optimization

11.4.1.3. Intended Audience and Reading Suggestions

Document is intended for developers of the multimedia production, supervisor of project, examiners and the end client who receives the product.

It is suggested to follow the structure provided in table of content of this document.

11.4.1.4. Product Scope

Project must provide a dynamic solution by using headless Content Management System (WordPress) and front-end development tools such as HTML5, CSS3 and JavaScript. The website must be responsive on different devices and with optimized SEO to improve the inflow to the site by ranking higher on Google Searches. The design of the product should represent the visual identity of Blokhus and its surroundings.

Valid articles and sport information are not part of the scope of the project. The used data serve as an example of what content should be there in the future.

11.4.1.5. References

Images provided by: Blokhus Sport and Events Facebook Page, VisitJammerbugten official website and Facebook Page, Colourbox

Code:

Counter - <https://codepen.io/bradtraversy/pen/poJwqOK>

Slider code - https://www.w3schools.com/howto/howto_js_slideshow.asp

Animations - <https://github.com/michalsnik/aos>

11.4.2. Overall Description

11.4.2.1. Product Perspective

The multimedia solution provided in this version is combining the content from different articles and events which are updated frequently by the client himself. The solution can be modified on later stages based on a further agreement between the client and developers.

11.4.2.2. Product Functions

The major functions of product are:

- Sign up for a membership
- Read about previous and upcoming events
- Ability to update and create content for the client or the administrator of the page
- Use the website on different screen sizes
- Find the needed contact information

More details provided in Section 3

11.4.2.3. User Classes and Characteristics

The multimedia production is anticipated to mainly target tourists, potential sponsors and people between the age of 20-50 who want to participate in various activities.

One of the websites goals is to attract younger generations.

11.4.2.4. Operating Environment

Desktop, tablet and mobile devices on the main browsers (Edge, Chrome, Mozilla, Safari)

11.4.2.5. Design and Implementation Constraints

Design must follow a purpose and have a clear visual hierarchy of interface elements. The color palette must represent the visual identity of Blokhus and its surroundings.

The font of the website should be readable and pass 2nd level of WCAG on readability.

Language must be set to English.

Customers organization is expected to be responsible for maintenance of delivered software.

Upon agreement the developers of solution can perform the maintenance.

11.4.2.6. Assumptions and Dependencies

Wordpress from Dreamhost and their dedicated servers. As a third-party hardware we are depending on their stability and availability to be 100% of the time.

11.4.3. System Features

11.4.3.1. Browser Requirements

11.4.3.2. Performance Requirements

The solution must pass the Google Page Speed minimum score of C, the maximum memory usage per page should be 2MB and the loading speed per page should be >3s.

The color contrast test for readability should pass the levels of 2nd level WCAG.

11.4.3.3. Software Quality Attributes

11.4.3.4. Business Rules

It is agreed with developers and client whether the cooperation continues after delivery of Version 1 and a possible contract can be made based on future circumstances.

11.4.4. System feature list

11.4.4.1. Description and Priority

Rates from 0-9

Priority: 9

Cost: 3 (time)

Benefit: 9

11.4.4.2. Stimulus/Response Sequences

Screen resizing on different devices

11.4.4.3. Functional Requirements

Minimal requirements for media-queries (on which sizes the website should be responsive):

REQ-1.1: 320px – 374px

REQ-1.2: 375px – 424px

REQ-1.3: 425px – 767px

REQ-1.4: 768px – 1024px

REQ-1.5: 1025px – 1439px

REQ-1.6: 1440px and up

More breaking points may be added to optimize the look of the page while scaling down on screen width

11.4.4.4. Nonfunctional Requirements

REQ-1.A: Maximum of 3 font-families used.

REQ-1.B: Content and images taken from provided sources of client upon his allowance.

REQ-1.C: Video taken from provided sources of client upon his allowance.

Sign-up form for membership

Description and Priority

Will require potential members to input generic information such as names, email, phone number and will have the option to choose from different payment methods such as credit cards, debit cards (AMEX, VISA, DISCOVERY, MASTERCARD) and PayPal.

Priority: 7

Cost: 7

Benefit: 8

Stimulus/Response Sequences

After form submission person gets a simulation of confirmed membership subscription. The person will be informed if the information they have provided is invalid and will be forced to update it if necessary.

Nonfunctional requirements

The form must be visible on the page that has the information for the membership.

11.4.5. Other Nonfunctional Requirements

Recommended minimum pages of the website: 5

Overall communication

Content should represent a friendly, fun environment with different sections dedicated to business. There are 2 focus groups to which the website will communicate information. Tourists (Event pages) and Locals (Sport pages).

Text

For this version of product development, the developers are partly responsible for content. The other part is provided by client and searched on official Facebook page of the company.

Images

Images from official Facebook page. When updating content images should be provided by the event organizers and be available for the administrator of the page when updating the content.

Translation of text

Translation of text is possible for future versions upon the wishes of client.

Future content

Content should be updated frequently after events or by the choice of owner. The updating will be made by the administrator. The knowledge of CMS is needed in order to complete these tasks.

Only the dynamic content (Articles) will be able to be updated through the CMS. Other types of information will require an administrator (developer) to update the information.

11.4.6. External Interface Requirements

User Interfaces

The users will be provided with a standard website user interface for desktop, tablet and mobile versions with alterations based on user research.

Software Interfaces

The CMS software is a Wordpress based. The administrators will have to be aware and trained properly to use the interface before they are allowed to make any changes. The services required for this to be possible is a web hosting package that allows Wordpress to be installed on it. The

Wordpress has to support plugins in order for the quick and easy updates (new articles) to be possible.

Communications Interfaces

The standard user will have to have internet connection in order to access the website.

Administrators could make use of FTP to upload content on the servers.

HTTP will be required (every browser we are targeting supports this protocol)

Possibility for HTTPS to be integrated is also required.