CERN’S DIGITAL PORTFOLIO

User report
Introduction

About the project and the survey
Where we are in the project

We want to define a vision for the platform, which responds to the wants and needs of its users and that meets the objectives of the different stakeholders and the platform in general. In this part of the first phase we are understanding the gap between the vision of the stakeholders with the end users. We are defining the different user archetypes with their different needs, expectations and goals for home.cern.

Phase I – DESIGN FOR PEOPLE

Goal and details of the survey

The goal of the survey was to understand the different user profiles, their acceptance of the defined vision, understanding the types of use cases related to them, their preferences in lay out and their perception of CERN.

<table>
<thead>
<tr>
<th>Platform</th>
<th>Typeform, see copy: <a href="https://everis-exd.typeform.com/to/vRJ2PY">https://everis-exd.typeform.com/to/vRJ2PY</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Online: 27 March 2017 – 2PM --- 3 April 2017 – 8 AM</td>
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<tr>
<td>Responses</td>
<td>2196 completed surveys – PC &amp; laptop: 1584, Tablet: 104, Smartphone: 508</td>
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<tr>
<td>Questions</td>
<td>see next pages</td>
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What have we done?

**OBJECTIVES**
To understand the objectives the users have in mind when navigating the platform

**WHY**
are we designing something new

**WHO**
will we design for

**WHAT**
will we design

**HOW**
will we create the wonder

**USER GROUPS AND USE CASES**
To understand the different types of users and the reasons why they would visit home.cern

**EXPERIENCE**
To uncover the gap between how users experience CERN and how they should experience it (extracted from the business objectives for the digital platform)

**LAY OUT, WEB FORMATS**
To understand the preferences in lay out And the web formats that users link to the different types of content

4 exercises guided by 4 questions

The survey has been shared through:

[Facebook](#), [Twitter](#), [Instagram](#), [Email](#), [home.cern]
What were the different questions?

**Vision statements**

"Which statements do you agree with the most?" Users were allowed to select several answers.

In an ideal situation, the CERN website should...

**Use cases**

"Imagine a situation in which you would consult the CERN website. Fill in the 4 questions below." Open questions.

**Web content vs. web format**

In the questions below, relate the different types of CERN web content with the type of web format that you find most relevant.

<table>
<thead>
<tr>
<th>Web content</th>
<th>Web format</th>
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</thead>
<tbody>
<tr>
<td>General info about CERN</td>
<td>A (text)</td>
</tr>
<tr>
<td>CERN news</td>
<td>PHOTO</td>
</tr>
<tr>
<td>Project or experiment</td>
<td>MAP</td>
</tr>
<tr>
<td>Publication of a scientific paper</td>
<td>GAME</td>
</tr>
<tr>
<td>Tutorial</td>
<td>ARCHIVE</td>
</tr>
<tr>
<td>Events</td>
<td>TIMELINE</td>
</tr>
<tr>
<td>Opinion</td>
<td></td>
</tr>
</tbody>
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**Dichotomies**

In terms of lay out, we want to measure your preferences ... The following 4 questions present 2 different lay outs. Select a value on the scale that best matches your preferences.

**Experience**

In your opinion, which of the statements below are correct? CERN ...
Table of contents

SURVEY RESULTS

Vision statements
The objectives for the new platform

Use cases
The goals and expectations of the users

Web format types and lay out
The preferences in visual elements

Experience statements
How users currently experience CERN

PERSONAS

Categorised and summarised representation of the different user archetypes

USER NEEDS vs. HOME.CERN

Value proposition canvas to represent the strategy of the platform

Related documents:
Annex with unvarnished survey results: Cernportfolio_Annexuserreport.ppt
Personas representing the user archetypes: CernPortfolio_Personas.pdf
Value proposition canvas representing the strategy for home.cern: CernPortfolio_Vpcanvas.pdf
SURVEY RESULTS

Direct and interpreted results of the survey
VISION statements

The objectives of the new platform

- Direct results from the survey
  The percentage of users that voted for the different statements

- Interpretation of the results
  How audience and users results can be merged
**Vision**

Direct survey-results

**Vision statements**

Which statements do you agree with the most?*

- **EXPLAIN TO ME**
  - 62%
- **INSPIRE ME**
  - 56%
- **TEACH ME**
  - 56%
- **UPDATE ME**
  - 49%

- **COMMUNICATE**
  - 40%
- **ENGAGE ME**
  - 26%
- **DELIGHT ME**
  - 26%
- **ENTERTAIN ME**
  - 16%

*Users were asked to vote for all the statements they agreed on, so multiple answers were allowed*
Vision

Interpretation of results - **Audience (workshop)** vs. **users (survey)**

**Methodology:** The objectives were chosen in relation to the different triggers, extracted from the vision-exercise in the audience workshop. In this overview the results of the survey are linked back to the initial chosen triggers.

**Unified**

- **NARRATE**
  - CERN activities
  - Simplify
  - Communicate
  - Tell stories
  - Educate
  - Inform
  - Share

- **DELIGHT**
  - users
  - Astonish (wow!)
  - Inspire
  - Captivate
  - Be functional
  - Be usable
  - Trend leading

- **ENGAGE**
  - all user groups
  - Interact
  - Unite diverse audience
  - Engage
  - Involve
  - Let users experience CERN

**Audience (workshop)**

- **Narrate**
  - in order to communicate, explain and teach CERN activities

**Users (survey)**

- **Explain activities to me**
  - 62%
- **Inspire me**
  - 56%
- **Teach me**
  - 56%
- **Update me**
  - 49%
- **Communicate stories**
  - 40%
- **Engage me**
  - 26%
- **Delight me**
  - 26%
- **Entertain me**
  - 16%
USE CASES

What are the reasons users use the platform and what would be the ideal result of their search

- **Categorised results from the survey**
  - The categories of user goals described by the users
  - The categories of expectations described by the users

- **Interpretation of the results**
  - How insights from the audience and from the users can be merged into guidelines
Use cases
Categorised survey results

User goals
What are the reasons users visit or consult home.cern

- Know about CERN
  - 35%
- Know about a specific topic
  - 26%
- Look for practical info
  - 21%
- Be updated
  - 8%
- Looking for an explanation or answer
  - 3%
- Know about CERN events
  - 4%
- Look for resources
  - 3%

3% 3% 8% 21% 26% 35%
→ Use cases
Categorised survey results

User sub goals
What are the reasons users visit or consult home.cern

**KNOW ABOUT A SPECIFIC TOPIC**
- About physical experiments
- Scientific experiments
- Research
- Know about the LHC
- Know about HEP
- Learn
- Do research
- Know about the Big Bang

**KNOW ABOUT CERN**
- What does CERN do
- What is the goal of CERN
- General information
- Info about people
- Facilities
- What is...
- Community
- Process
- Institution
- Get in touch...
- How CERN is organized
- Curiosity

**BE UPDATED**
- Latest results...
- Discoveries about physics, LHC, Experiments, science, etc.
- Current projects
- Latest reports
- What's happening?
- What are they working on?

**GET AN EXPLANATION OR ANSWER**
- What about ...
- How ...
- Clear information about ...
- What about the universe ...
- How does .. affect me ...
- I want to know ...
- Tell me about ...

**LOOK FOR PRACTICAL INFO**
- How to visit...
- How can I be involved? (as students, professional, look for job)
- Where are other CERN sites?
- I want to manage information...
- How can I access ...?

**KNOW ABOUT CERN EVENTS**
- On-going and Upcoming Events
- Seminars
- Meetings
- Courses
- Workshops
- Conferences
- Training

**LOOK FOR RESOURCES**
- Material for student presentation ...
- Latest publications
- For class
- To learn ..
- Physics homework
- Resources for teaching
- Look for references
- Look for videos, presentations, images, illustrations, documents, links...
**Use cases**
Categorised survey results

Expectations
What would **the ideal result** on home.cern look like

### formats
1. Variety of formats
   - Info graphics
   - Multimedia content
   - List of elements
   - .doc / .pdf
2. Interaction
   - Articles
   - Question and answers
   - Slideshow
   - Event / calendar
3. Understandable content
   - Pictures
   - Links
   - Illustration
   - Summarized text
4. Advanced use of formats *
   - Text
   - Video
   - Keywords
   - Resources
5. Straight to the point experience
   - Animation
   - 3D content
   - Search results
   - 360 degrees images / videos

### concept
6. Explanations and answers
   - Virtual tour
   - 3D content
7. Intuitive experience
   - Through interactive content
   - Show important info on first view
   - Intuitive menu bar
   - Give possibility to request more info
8. First view recognition
   - Intuitive navigation
   - By giving me relevant info
   - By answering my question

### content
9. User friendly interface
   - Advantages
     - Dynamic web pages
     - Attractive interface
10. Trustworthy info
    - Disadvantages
      - Up to date
      - Clear
11. Clarity
    - Clear interface
    - Clear information
12. Accessibility**
    - Advantages
      - Adaptive design
      - Straight forward navigation
      - Accessible information
      - Easy understanding
      - Focussed
    - Disadvantages
      - The new website will be designed with the highest standards for accessibility taken into account for ALL types of users and ALL types of devices. This part will be further expanded in the design phase of the project.

*In an ideal situation, users expect advanced formats. This can be taken into account for the long-term development of the site. Bearing in mind the technological constraints and the point of view of the business, the advanced use of formats can be categorized under ‘moving images’ and ‘images’.

** The new website will be designed with the highest standards for accessibility taken into account for ALL types of users and ALL types of devices. This part will be further expanded in the design phase of the project.
**Methodology:** The results coming from the audience (workshop) and the users (survey) have been brought together and from there UX guidelines have been created.

**Audience (workshop)**
- Visual story telling
  - An interactive experience
- Adapted tone of voice for the different user groups
- A mix of visual formats and material
- Let users connect with CERN
- Show users content they did not expect but without disturbing their search path
- Let users get to the info they are looking for in a few clicks
- Amaze users by showing the wonder on first view, but give them the possibility to understand what’s behind

**Users (survey)**
- 1. Variety of formats
- 2. Interaction
- 3. Understandable content
- 4. Advanced use of formats
- 5. Straight to the point experience
- 6. Explanations and answers
- 7. Intuitive experience
- 8. First view recognition
- 9. User friendly interface
- 10. Trustable info
- 11. Clarity
- 12. Accessible info

**Guidelines**
- Make sure that the format is chosen carefully so that it helps users to understand the content better
- Bear in mind the expected actions from the user group when selecting format
- Bear in mind the targeted user group for the content when selecting formats
- Integrate a smart and advanced search engine to give an answer to the users
- Create a logical and intuitive menu bar to reflect the first level of the information architecture
- Focus on fun and interesting facts
- When showing updates, label clearly to which content these updates are related
- Indicate clearly where a certain link will bring the user (e.g. outside the webpage) and give a clear indication of where the user is on the website
- Use clear summaries in order to make users understand what certain content is about
- Use logical categories in order to create an intuitive navigation and way finding
- Simplify labelling

**Concept**
- An intuitive navigation
- Frequent renewed content so users come back to see more
- Transparency, clarity and honestly
- A homepage with a clear guidance to the right information
WEB FORMAT TYPES & LAYOUT

What are the preferences around the lay out of the platform

- Direct results from the survey
  - Overview with percentages of the votes for the different web formats for the different types of web content
  - Percentage votes for the different opposite dichotomies concepts of the users

- Interpretation of results
  - How insights from the audience and from the users can be merged into guidelines
Web format types

Direct survey-results

Types of web format vs. types of web content
Overview of the users votes for web format

CERN NEWS

- Text: 43%
- Photo: 10%
- Timeline: 11%
- Video: 14%
- Illustration: 8%

PROJECT / EXPERIMENT

- Text: 16%
- Photo: 11%
- Timeline: 7%
- Video: 30%
- Illustration: 4%

- FAQs: 17%

- Video: 2%
- Illustration: 2%
- Game: 1%
- Map: 1%
- Podcast: 1%
- Discussion: 3%
- News: 3%
Types of web format vs. types of web content
Overview of the users votes for web format
Types of web format vs. types of web content
Overview of the users votes for web format

**Tutorial**
- Video: 46%
- Checklist: 8%
- Illustration: 10%
- Game: 7%
- FAQ's: 6%
- Text: 12%
- Archive: 1%
- Podcast: 1%
- Timeline: 1%
- Discussion: 3%
- Archive: 1%
- Photo: 2%

**Event**
- Timeline: 33%
- Archive: 17%
- Photo: 16%
- Map: 5%
- Checklist: 10%
- Video: 10%
- Illustration: 6%
- FAQ's: 2%
- Podcast: 3%
- Game: 1%
- Discussion: 3%
Types of web format vs. types of web content
Overview of the users votes for web format

- Discussion: 57%
- Text: 20%
- Illustration: 9%
- FAQ: 5%
- Opinion: 1%

Other categories:
- Map: 0%
- Podcast: 3%
- Timeline: 1%
- Game: 0%
- Archive: 1%
- Photo: 1%
- Checklist: 1%
- Video: 3%
Dichotomies
Overview of the users votes for preferences in lay out

Users were asked to give a value of 1 (left side) to 7 (right side) to show their preference for a certain concept. The circles on the dichotomy overview represent the percentage of votes for a certain number.
Dichotomies
Overview of the users votes for preferences in lay out

Users (survey results)

Audience (workshop results)
**Expectations**

Interpretation of results - **Audience** *(workshop)* vs. **users** *(survey)*

**Methodology:** The results coming from the audience (workshop – dichotomy exercise and co-design) and the users (survey – format vs. types and dichotomies) have been brought together and from there UX guidelines have been created.

**audience**

- Adapt visual material to attract different user groups
- Use astonishing visual material
- Tell stories through the use of visual material and specifically photos
- Present news and updates in a way that users are triggered to read them

**users**

- Want for combination of text and visual material
- Illustrations are more popular than use of photos
- Want video elements to explain things (about CERN – projects/experiments)
- Type of preferred format depends on both the type of user and the type of content

**formats**

- Use appropriate visual material, make sure that the visuals are related to the topic of a certain page of the website
- Be careful with images, they need to make sense
- Create a distinction between visual material chosen for lay out (e.g. banners) and visual material chosen to explain things (e.g. graphics / photos)

**concept**

- Use interaction-elements inside story telling in order to engage and delight users
- Use interactive elements such as timelines and interactive maps to enrich content
- Connect different content through stories

**content**

- Create content as stories displaying related documents, links, and other resources within the story’s focus
- Display preview content instead of full content on first sight
- Show very clearly to the users with which content a certain update is related

**guidelines**

- Share news and updates that are interesting for the different user groups
- Updates and news can be shown in the shape of stories
- Make the different user groups clear on first view if certain type of content is useful for them or not

**Popularity of interactive elements depends on the type of content, e.g. in discussion, tutorial**

**Preferred content-based entrance to information**

**Want a homepage with a mix of updates and entrance to content**
EXPERIENCE

- **Direct results from the survey**
  The percentage overview of the votes for the different statements, extracted from the business objectives

- **Interpretation of the results**
  How the image of CERN can be upgraded by pushing the experiences that scored less through the new web. This will help the institution to achieve its business objectives.
Experience

Direct survey results

Experience statements
Overview of the votes for which statements users agree on*

*Users were asked to vote for all the statements that they agreed on, so multiple answers were allowed
Experience

Interpretation of results - **audience** (workshop) vs. **users** (survey)

**Methodology**: For the statements with less than 50% of the votes, we have created guidelines that can help to push the image of CERN through the platform, in order to help to achieve the business objectives of the institution.

- **audience**
  - Choose appropriate formats to attract and include all users.
  - Choose the tone of voice in order to attract and include all audience groups.
  - Reflect a strong visual identity and values through the whole .cern universe to push branding.
  - Present certain topics in a way that the starting point reflects the impact on the users’ life.
  - Have a clear entrance to VISIT CERN from home.cern and a clear landing page with summarized info.

- **users**
  - CERN is attractive for non-scientific people (29%)
  - CERN is attractive for non-scientific people (29%)
  - CERN has a positive affect on tourism and local cultural development (20%)
  - CERN activities have an impact on our daily life (31%)
  - CERN is a well known brand (26%)

Amaze users by showing the wonder on first view, but give them the possibility to understand what’s behind.

Reflect CERN culture through content and stories.

Create topics that interest users from different user groups for different reasons and with different interest and give a solution to all of them.

Reflect CERN culture through content and stories.

Choose and push content related to the effect of CERN on daily life.

- Reflect CERN culture through content and stories.

Choose the tone of voice in order to attract and include all audience groups.

- Reflect a strong visual identity and values through the whole .cern universe to push branding.

Choose and push content related to the effect of CERN on daily life.

- Present certain topics in a way that the starting point reflects the impact on the users’ life.

- Have a clear entrance to VISIT CERN from home.cern and a clear landing page with summarized info.

- Reflect CERN culture through content and stories.
PERSONAS

Summary of the different user archetypes at home.cern
Personas
Categorisation

Percentage overview of chosen user group

Users were allowed to vote for different user groups, resulting in a total of 3611\* selections for 2197 completed surveys. Many identified themselves as a scientist even if they were high-school students, media etc. Many who selected CERN community based or not based at CERN also selected scientist and university student, reflecting CERN’s user community. The CERN community often also selected local community and citizen. The full totals out of 3611 are shown below.

- **Scientist**: 773/3611 (21%)
- **Citizen**: 441/3611 (12%)
- **University student**: 423/3611 (12%)
- **Developer / IT**: 374/3611 (10%)
- **CERN community based at CERN**: 360/3611 (10%)
- **CERN community not based at CERN**: 261/3611 (7%)
- **High-school student**: 213/3611 (6%)
- **Educators**: 207/3611 (6%)
- **Science and technology decision makers**: 182/3611 (5%)
- **Jobseekers**: 132/3611 (4%)
- **Local community**: 89/3611 (2.5%)
- **Media / journalist**: 85/3611 (2%)
- **Alumni**: 57/3611 (2%)
- **Potential sponsor**: 14/3611 (0.5%)

* This value includes mapping the free-text “other” field onto existing user groups: engineers were added to “scientists”; artists, designers, architects, librarians, lawyers, retired people not affiliated to CERN, enthusiasts, gamers and those who had selected no user group were added to “citizens”; science communicator and film-maker were added to “media/journalist”; e-learning designer was added to “developer” and potential partner was added to “decision makers”.

Categorization of user archetypes

Based on the detected patterns in the answers on different questions and the selection for user groups 5 representative user archetypes will be created.

- **The scientist**
  - Scientists
  - CERN community not based at CERN (70% indicate as well scientist)
  - Developer/IT (32% also indicated scientist)
- **University - related**
  - University student
  - Scientist + Educator (if selected together)
  - CERN community not based at CERN (20% indicates as well university student)
  - Developer/IT (25% of developers indicated as well University)
- **Science and technology decision maker**
  - Science and technology decision maker
- **CERN community based at CERN**
  - CERN community based at CERN
- **The citizen**
  - Citizen
  - High-school student
  - Jobseekers
  - Local community
  - Alumni
  - Potential sponsor

Nota. The user group *Media/Journalist* will be taken into consideration when creating the concept for the redesign. Due to the specific needs of this group, which covers a specific part of the website, there will not be a specific persona created, but the importance of the group is recognised and fulfilling of their goals will be guaranteed when creating the information architecture.
The expectations, motivations and goals have been summarized through different personas representing the different user archetypes.

The complete personas can be found in the file: CernPortfolio_Personas.pdf

**Reading Guide**
USER NEEDS vs. HOME.CERN

The strategy for home.cern
The insights coming from the user survey and the audience workshop have been brought together in a *value proposition canvas*. It summarises the user needs in a simple way and it shows an overview of the strategy to design the website that users want.

It shows the bridge between what will be designed and why people will use it.

*The completed value proposition canvas be found in the file: CernPortfolio_Vpcanvas.pdf*