The EOSC Future project is co-funded by the European Union Horizon Programme call INFRAEOSC-03-2020, Grant Agreement 101017536.
Agenda

Introduction/overview
User requirements and value proposition
New features of the user interface
Examples of interoperable components
EOSC Explore
Perspectives on further contributions to the value of EOSC
Conclusions/next steps
User requirements and value proposition

Anca Hienola

Finnish Meteorological Institute
Front office - before

Simple system
Discover, find info, browse, receive recommendations

User unfriendly
Illogical, unintuitive

Three components
EOSC Portal Catalogue and Marketplace Recommender system

EOSC Portal - A gateway to information and resources in EOSC

Access the EOSC Portal Catalogue & Marketplace

Scientific Domains
Categories

Access physical & eInfrastructures
Aggregators & Integrators

Process & Analysis

Security & Operations
Sharing & Discovery

Training & Support
Requirements themes

Universally accessible data/easy search & find

Data Inclusion

Enhanced Discovery

Intuitive search & browse resources

Knowledge Hub

User Dashboard

Contains (possibly) relevant elements

Training catalogue
Learning platform

Based on multi-focal perspective

Recommender System
Data Inclusion

Data inclusion refers to an EOSC service that makes research data universally searchable, findable and accessible.

Keywords ➔ Find data ➔ 100s of repositories

Two focus group sessions:

- Researchers habits for data discovery
- Find data in EOSC-portal
- Criteria for finding data
- Filters used
- Terminology

<table>
<thead>
<tr>
<th>April '22</th>
<th>June '22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find EOSC portal</td>
<td>22% - EOSC Association</td>
</tr>
<tr>
<td></td>
<td>11% - EOSC Marketplace; 11% - other websites.</td>
</tr>
<tr>
<td>Search for a specific dataset</td>
<td>60%</td>
</tr>
<tr>
<td>Overall experience</td>
<td>80%</td>
</tr>
<tr>
<td>Usability</td>
<td>40%</td>
</tr>
<tr>
<td>Terminology</td>
<td>60%</td>
</tr>
<tr>
<td>Satisfaction on data finding</td>
<td>40%</td>
</tr>
<tr>
<td>Reuse of service</td>
<td>40%</td>
</tr>
</tbody>
</table>
The Value Proposition Canvas

**Service**
- Presentation of relations between the EOSC/OpenAIRE Research Graph entities
- Linked research results with communities
- Linked research results with other research results
- Find where to deposit

**Benefits (what it does)**
- Search and advanced search functionalities
- ORCID enhancement with research results
- EOSC Research Graph content presentation
- Enhancement EOSC Research Graph functionalities for results with funding
- Enhancement EOSC Research Graph functionalities for research results with other

**Features (how it satisfies needs)**
- Open Access Research Results easily discoverable
- Interconnected research results
- ORCID information
- Search with PIDs

**Experience (why to use it)**
- Easily enhancing available information
- Downloadable search results
- Downloadable research results reports for projects and institutions.

**Customer**
- Promote my research
- Get acknowledged for my research
- Increase the impact of my research

**Wants (Jobs)**
- EOSC provenance information might be confusing to researchers

**Needs (Gains)**
- Make my research accessible
- Easily discover research results
- Find funding for my research
- Discover connection between research results
- Find Open Access research results

**Fears (Pains)**
- Technical wording or terminology
- Missing start point for searches

**Company**
- OpenAIRE AMK (Non Profit Partnership)

**Product**
- Explore

**Ideal Customer**
- Researchers

**Substitutes**
- Google Scholar
- lens.org
- COIKE
- Semantic Scholar
- Google Dataset Search
Enhanced discovery

In the context of product and interface design, discoverability represents the degree of ease with which the user can find all the elements and features of something new when they first encounter it.

One focus group session:

- Easiness to find, access and use resources
- Presentation of content (categorization, labeling wording etc.)
- Overall satisfaction

<table>
<thead>
<tr>
<th>Search for a specific service</th>
<th>Usability</th>
<th>Terminology</th>
<th>Categories</th>
<th>Overall experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="icon.png" alt="Icon" /></td>
<td><img src="icon.png" alt="Icon" /></td>
<td><img src="icon.png" alt="Icon" /></td>
<td>Old</td>
<td>Proposed</td>
</tr>
</tbody>
</table>

April '22
Value proposition canvas

Notify guest/unauthenticated users.

LOG IN to receive better recommendations

Why a recommendation was made

“Based on your search/field of science...”
“Other users in your field used...”

Customer Profile

Gains

Pains

- User dissatisfied with anonymous suggestions
  - The recommendations are not related to the user's domain

- Increase transparency and user confidence on presented items

- How is the user represented? How are my data used?

- Difficult to understand why these suggestions are made

- How to develop targeted interventions to prevent the unknown recommendations

- Which are the options of the system? Justification of system prioritization of options. Why this option is the best?

- Many users are not familiar with the concept of recommendations (and added benefits) and just use search (ref: focus group 1 results)**
**Value proposition canvas**

**Optimize no results page**
- Similar or partial matches should be recommended

**Support for User Curated Content.**
- Allow users to display profile

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**Customer Profile**

- **Gains**
  - Customer jobs
- **Pains**
  - Customer jobs

---

**Avoid dead ends in exploration of content**

**Keep User engagement High**

**User might miss offered services due to wrong queries**

**from focus group:**
"I wrote a word and did not find something"

**Build proven pipelines for research**

**Explore tested recipes**

**Inexperienced users find it difficult to collect the set of services tailored to their needs**

**The list of service offerings is overwhelming**
**Value proposition canvas**

**Enrich items with AI generated tags**
Tags can be used by analysing trends, styles and users' behaviour.

**Avoid technical jargon**

AGGREGATORS and INTEGRATORS???

- users find resources no matter how they search.
- find interesting filters based on existing user interaction and trends.
- user doesn't find existing filters interesting or helpful.

- Ability to easily identify items of interest behind categories and descriptions.
- non-IT user finds difficult to understand IT speak terms on the website.
- misleading information: It must be something that aggregates things up, how this makes sense is another topic.
- not familiar to me.
Value proposition canvas

Provide new categorization

SAY NO to aggregators and integrators!

Users can more quickly and easily find content that is relevant to them, if there is a parallel categorization based on my field.

- video to understand better.
- no structured domains like: engineering, medicine, astronomy
- it is not clear at all in what category ex. a web portal falls
- Categories are not organized in a way that i can find the resources i want.
- There are too many categories and subcategories. So of them with no content
- The name of this category is not very intuitive.
- time to learn and far too much info! I get lost
Knowledge hub

Consists of Training Catalogue (collection of training resources with 3 components) and Learning Platform (execution environment for interactive course materials)

Two focus group sessions (exploratory and in depth):

- March '22
  - What are the training needs
  - Finding training material in general
  - Best functions
  - September 2022
  - Test beta version
  - Provide The good, The bad, The recommendation

Training catalog filters

The good
- do like results open in new tab
- Nice layout and reactive interface
- Easy to use interface
- Easy to use, responsive, multiple useful filters.
- Duration and created date format

The bad
- unable to sort a certain filter e.g. 'newest first', 'shortest first'
- Target groups are not all the groups together. Requires separate grouping them.
- The filters are reorganised according to previous selections
- The filters are not displayed in separate columns and do not really necessary
- Parse consistent use of metadata. How you have "born", "first" as 3 filters. Use consistent values
- The "created on" also shows the created date and do not really necessary
- The "created on" also shows the created date and do not really necessary

The recommendation
- Provide sort options. For example sort on most recent
- Would be nice to have a search box at the filter options, eg. type 'en' into language filter, and all 'en', 'eng', 'en-gb', 'en', should be selected
Value proposition canvas

**BENEFITS**
- One stop weblink
- Easy to use

**EXPERIENCE**
- Free
- Open access
- Easy to use
- Content relevant
- Is clear

**FEATURES**
- Static page with clear links
- Search training catalogue
- Access to e-learning portal
- Proper filters
- Helpdesk

**WANTS**
- Gain new skills
- Access materials

**NEEDS**
- Easy to find materials
- Easy to browse

**PAINS**
- Too many clicks
- Results not relevant
User dashboard

User dashboard is a user-centric space including relevant elements for the user activity in the front office

One focus group (survey)

- Collect info about the user profile
- Important features in User Dashboard
- Mock-ups of proposed designs
# Value proposition canvas

## SERVICE

<table>
<thead>
<tr>
<th>BENEFITS</th>
<th>EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• One place to access everything</td>
<td>• Free</td>
</tr>
<tr>
<td>• Enhance collaboration in “Projects”</td>
<td>• Easy to use</td>
</tr>
<tr>
<td>• There is no place like home</td>
<td>• Customizable (content and recommendations)</td>
</tr>
<tr>
<td></td>
<td>• Brings comfort</td>
</tr>
</tbody>
</table>

## FEATURES

- Make it your home
- Links to what is important
- Recommendations for services, training, publications, data, software of their choice
- Gather participants & common resources in “Project”
- News/Top trending
- Funding opportunities

## CUSTOMER

### WANTS
- Own “home”
- Save favorite resources

### NEEDS
- Favorite/ordered resources at hand
- Personalized recommendations
- Control of the dashboard
- News from EOSC

### PAINS
- Difficulty in finding favorite/ordered resources
- No customization of the Dashboard
- Unimportant recommendations

### EXPERIENCE
- Free
- Easy to use
- Customizable (content and recommendations)
- Brings comfort
The Recommender System provides EOSC users with recommendations concerning resources that could be of interest, based on a multi-focal perspective.

One focus group & 6 interviews

- Identify concepts relevant to RS
- Categorize the concepts
- Sort concepts by importance

**March 2022**

- Relevance/usefulness/importance of recommendations
- Alignments of recommendations with search
- Presentation of recommendations

**May ‘22**
Value proposition canvas

**SERVICE**

**BENEFITS**
- Recommendations tailored for User’s needs
- User does not need to specify the needs explicitly

**EXPERIENCE**
- Helpful
- Focused
- Welcome

**FEATURES**
- Add to favorites
- ON/OFF for categories or all recommendations
- Feedback: evaluate the recommendations
- Explanation for the recommendation

**CUSTOMER**

**WANTS**
- Find relevant resources
- Discover new areas of interest

**NEEDS**
- Control over recommendations
- Recommendations by category
- Save interesting recommendations
- Why this recommendation?

**PAINS**
- Too many recommendations
- Recommendation out of scope
- Recommendations are annoying

**CUSTOMER**

- ● Recommendations tailored for User’s needs
- ● User does not need to specify needs explicitly
- ● Helpful
- ● Focused
- ● Welcome
- ● Add to favorites
- ● ON/OFF for categories or all recommendations
- ● Feedback: evaluate recommendations
- ● Explanation for the recommendation

**FEATURES**

**BENEFITS**

**CUSTOMER**

**EXPERIENCE**

**WANTS**

**NEEDS**

**PAINS**

- ● Find relevant resources
- ● Discover new areas of interest
- ● Control over recommendations
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Thank you!

Any questions?