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V1

D2.1 - Guidelines for GP and RI identification and documentation of platform user needs

ADVISOR NETWORK FOR OPTIMAL FERTILISERS USE

Document Summary

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Glossary

BBF	Bio-Based Fertiliser
BP	Best Practice
CoP	Community of Practice
FIN	Fertilisation Innovation Network
GP	Good Practice
IA	Information Architecture
IFM	Integrated Fertiliser Management
PF	Precision Farming
RI	Research Innovation
SQ	Soil Quality
TRL	Technology Readiness Level

Abstract

This deliverable provides the guidelines for the identification of Good Practices (GPs) and Research Innovations (RIs) and outlines the initial identification and documentation of user needs for the STRATUS digital platform.

These guidelines are designed to assist partners of the Fertilisation Innovation Networks (FIN) in effectively collecting and managing Integrated Fertiliser Management (IFM) GPs and RIs. The document outlines the process for identifying, collecting, and analysing these practices and innovations to enhance knowledge sharing and implementation across different regions and sectors.

The guidelines specify that a minimum of 104 GPs and RIs will be collected over two rounds, with contributions from each FIN partner in areas such as Precision Farming (PF), Bio-based Fertilisers (BBF), and Soil Quality (SQ). Each round aims to gather at least 52 practices. After reviewing all practices, a total of 48 Best Practices (BPs) will be selected for dissemination through cross-visits, demonstrations, and training sessions.

The document provides detailed instructions for FIN partners on using a standardised identification form to submit GPs and RIs. This form ensures consistency and facilitates comparisons across different regions and themes. Additionally, the guidelines stress the importance of comprehensive data collection, including supplementary materials like images and videos, while adhering to GDPR regulations.

The structured approach outlined in this document aims to streamline the collection process, enhance the quality of collected practices, and ultimately support the advancement of sustainable fertilisation practices through effective knowledge exchange and innovation dissemination.

Moreover, this deliverable highlights the first efforts made for the identification of the end-user needs of the STRATUS Platform. This delineation of user needs was executed in three separate activities: I) an interactive session performed at the kick-off meeting of the project; II) an online survey targeted at the consortium; III) structured interviews aiming to explore the Information Architecture of the platform based on feedback from participants.

The STRATUS Platform will be comprised of an Inventory, a Training Module, and a Networking component. By understanding the needs and requirements of the end-users, each element of the STRATUS Platform can be designed and developed to most optimally address those needs, by optimising the user experience and tailoring the functionalities accordingly. The first working version of the platform will be made available in M12 of the project, established upon the findings of these activities.

1. Guidelines for GP and RI identification

This guideline document is designed to assist partners of the Fertilisation Innovation Networks (FIN) in effectively collecting Integrated Fertiliser Management (IFM) Good Practices (GPs) and Research Innovations (RIs).

Definitions:

- **Good Practices (GPs):** These are solutions derived from practical sources, capturing effective strategies, techniques, or approaches that have proven successful in real-world applications.
- **Research Innovations (RIs):** These are solutions identified from literature sources, encompassing novel ideas, methodologies, or technologies that contribute to advancing knowledge and understanding in the field.

A minimum of 104 GPs and RIs will be collected over two rounds, with at least 52 collected in year 1 and another 52 in year 3. Each FIN partner will propose at least 2 practices (GP or RI) per round within their relevant topic (Precision Farming (PF), Bio-based Fertilisers (BBF), Soil Quality (SQ)), resulting in a minimum of 52 practices collected per round. These collected GPs and RIs will be uploaded to the STRATUS platform.

Within Work Package 3 (WP 3), the GPs and RIs will undergo a systemic feasibility analysis, ultimately selecting 48 Best Practices (BPs). These BPs will then be disseminated in Work Package 4 (WP 4) through cross-visits, demonstrations, and training sessions. To ensure a structured approach and facilitate comparisons across regions and themes, we have created a standardised identification form for collecting GPs and RIs. This form is accessible online, and a link to the form will be provided within these guidelines for easy access.

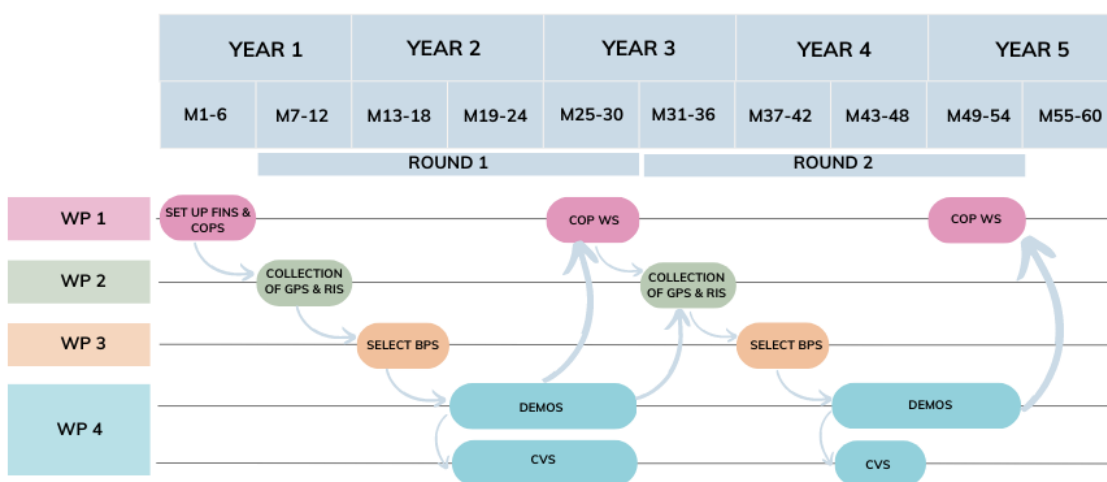


Figure 1: STRATUS Workflow

1.1 Planning of the collection rounds

The deadlines for the collection of GPs and RIs are provided in Table 1.

Month	Date	Milestone/Activity
M6	3 July '24	First introduction of guidelines to FIN partners
M8	5 September '24	Online presentation of guidelines (2PM)
M8	6 September '24	Start 1 st round of collecting GPs & RIs
M10	29 November '24	1 st round complete (min. 52 GPs and RIs collected)
M11	02-06 December '24	Checking and approval by advisory- and scientific FIN leaders
M11	09-31 December '24	Translation of GPs & RIs in the 11 languages of the project.
M12	15 January '24	Translations check
M12	01-31 January '24	Writing of Deliverable 2.3
M32	September '26	Start 2 nd round of collecting GPs & RIs
M34	November '26	Completion of 2 nd round

Table 1: Planning of the collection rounds

1.2 FIN Partner responsibilities

The amount of GPs and RIs, to be collected per FIN and per partner are provided in Table 2 and Table 3.

FIN	PARTNER	ROLE	SUB-SECTOR	ROUND 1 2024	ROUND 2 2026
PF	AUA	Scientific Leader	Horticulture, Fruit	2	2
	ILVO	Advisory Leader	Arable, horticulture, fruit	2	2
	INTIA	Member	Arable, horticulture, fruit	2	2
	CAFS	Member	Arable, fruit	2	2
	WR	Member	Arable, horticulture	2	2
	RT	Member	Arable, fruit	2	2
	HS-F	Member	Arable	2	2
	AC3A	Member	Arable, horticulture, fruit	2	2
	ZLTO	Member	Arable	2	2
	CDR	Member	Arable, horticulture, fruit	2	2
BBF	WR	Scientific Leader	Arable, horticulture	2	2

	AC3A	Advisory Leader	Arable, horticulture, fruit	2	2
	INTIA	Member	Arable, horticulture, fruit	2	2
	ILVO	Member	Arable, horticulture	2	2
	RT	Member	Arable, horticulture, fruit	2	2
	UGENT	Member	Arable, horticulture, fruit	2	2
	ZLTO	Member	Arable	2	2
SQ	INTIA	Scientific Leader	Arable, horticulture, fruit	2	2
	HS-F	Advisory Leader	Arable	2	2
	ILVO	Member	Arable, horticulture	2	2
	WR	Member	Arable, horticulture	2	2
	SEASN	Member	Arable, fruit	2	2
	RT	Member	Arable, fruit	2	2
	ZLTO	Member	Arable	2	2
	AC3A	Member	Arable, horticulture, fruit	2	2
	CDR	Member	Arable, horticulture, fruit	2	2
TOTAL				52	52

Table 2: FIN partner responsibilities

FIN	GPs & RIs COLLECTED in 2024
AC3A	Min. 6
AUA	Min. 2
CAFS	Min. 2
CDR	Min. 4
HS-F	Min. 4
ILVO	Min. 6
INTIA	Min. 6
RT	Min. 6
SEASN	Min. 2
UGENT	Min. 2
WR	Min. 6

ZLTO	Min. 6
TOTAL	Min. 52

Table 3: amount of GPs and RIs per FIN partner

1.3 Identifying GPs & RIs using the identification form

FIN partners should submit GPs and RIs by filling in the identification form.

Before doing so, they should read the guidelines for identifying GPs or RIs, depending on the type of practice they plan to submit. Each FIN partner is expected to submit at least two practices (GP or RI) per round. If they can identify more than two practices, additional submissions are welcome.

While there are no strict requirements on the number of GPs or RIs to be submitted, we encourage FIN partners to balance their submissions between GPs and RIs. Additionally, it's important to remember that 48 BPs need to be selected from the submitted GPs and RIs. For a practice to be selected as a BP, sufficient information must be available. Therefore, while novel practices can be submitted, please also include more established practices.

Link to the identification form

BBF <https://forms.office.com/e/gkqEFwLaJ2?origin=lprLink>

SQ <https://forms.office.com/e/SJCGjW461q?origin=lprLink>

PF <https://forms.office.com/e/vPD0MGBd4L?origin=lprLink>

1.3.1 Guidelines for Identifying GPs

The FIN partners will lead the collection of on-farm good practices within each Community of Practice (CoP), addressing one of the three IFM topics (PF, BBF, SQ). These practices encompass innovations, knowledge, technology, and more, sourced either from individual farmers or from collective initiatives like national/regional programs involving multiple stakeholders.

FIN partners will encourage CoP members to gather good practices as part of their daily activities, such as during consultations within their regional networks or through reading blogs and newspapers. The goal is to complete the identification form which will help compare practices across networks and regions. The questions on the identification form can be reviewed beforehand and are provided in annex 1.

In addition to filling in the form, an image, photo, or video should be uploaded to SharePoint for each collected GP. If the photo includes a person, ensure there is written consent to use it.

Link to folder on SharePoint:

https://naserthinking.sharepoint.com/:f:/r/sites/STRATUS/Documentos%20compartidos/General/WP2_Platform/T2.3%20Collection%20of%20GPs%20%26%20RIs/Round%201%20-%20Pictures?csf=1&web=1&e=kWOCza

While all CoP members are expected to contribute, the primary responsibility for gathering sufficient information rests with the FIN partners. They must ensure that the collected data is comprehensive enough for a third party to understand and potentially implement the GP.

To gather more detailed insights, FIN partners may conduct interviews, either one-on-one or in small groups (2-3 actors). The interviewee should be someone with deeper insights into the identified GP. The interview process aims to fill out the identification form, using the questions in annex 1 as a guide.

It's crucial to keep the interview approach open to capture all experiences and practical insights effectively. Supplementing the written template with video or audio recordings of interviewees' descriptions and experiences can enhance the documentation process. The form also allows FIN partners to provide the contact details of an expert (or the interviewee).

Regarding contact information, it's important to **adhere to GDPR regulations**. Contact information should only be shared with explicit written approval from the contact person. Alternatively, a separate anonymised file can be created to store contact details using codes or aliases.

1.3.2 Guidelines for identifying RIs

RIs are novel approaches identified from literary sources.

FIN partners are encouraged to review sources within their language area to find innovative techniques that could serve as RIs for the STRATUS project. These sources can include both scientific publications and grey literature such as agricultural press, newsletters, blogs, etc.

While it may not always be possible to answer all questions in the identification form, FIN partners should **aim to respond to as many questions as possible**. As mentioned before, it is important to balance submissions by including enough practices with sufficient information available.

Additionally, **a link to the literary source should be included in the form**. If an image, photo or video is available, please upload it to SharePoint. If the photo includes a person, ensure there is written consent to use it.

Link to folder on sharepoint:

https://naserthinking.sharepoint.com/:f:/r/sites/STRATUS/Documentos%20compartidos/General/WP2_Platform/T2.3%20Collection%20of%20GPs%20%26%20RIs/Round%201%20-%20Pictures?csf=1&web=1&e=kWOCza

2. Documentation of platform user needs

2.1 Kick-off Meeting Interactive Session

Real-time feedback was collected during the project's kick-off meeting, utilising Mentimeter¹. The total number of participants was 25, all of whom constituted members of the consortium. The survey questions revolved around user requirements and preferences when using a digital platform, aiming to act as a preliminary method of informing the STRATUS' platform design.

- Participants were questioned if they were aware of any resources (projects, databases, knowledge repositories) inform the design process, with FAIRshare, and ClimateSmartAdvisors arising as common responses.
- Participants were asked to provide feedback on platform functionalities and features they found useful. In particular, some suggestions focused on facilitating idea exchange among advisors, providing accessible information through different formats such as short videos and audio options, and ensuring responsiveness across various devices.
- Lastly, the participants were asked to name what factors encourage platform usage and engagement. Out of 39 responses, the main theme emphasized the importance of a mobile-friendly platform with a clear structure, simple navigation, and an attractive visual appearance. Credibility along with periodic updates of the material was also emphasised, with multilingualism being also a factor of promoting engagement.

2.2 Survey Analysis

The objective of the survey was to gain an initial understanding of the preferences and needs of consortium members. Particular emphasis was placed on comprehending the participants' prior experiences with digital platforms and identifying the primary challenges they encountered. This information will inform the focus of subsequent design and analysis stages.

Upon the collection of survey responses, the AUA team compiled a report detailing the results, which are visually represented in Annex 2. Through the process, the needs of the end-users were explored in order to delineate some preferences and desired characteristics for the platform. Questions were structured specifically to extract information relating to how participants prefer interacting with digital platforms and gain some first insights into the three core elements of the platform, namely the STRATUS inventory, the training material component, and the networking component.

To fulfil the requirements of this task, an online survey was distributed among consortium members, gathering a total of 32 responses, fulfilling the initial target of 30 participants. The survey consisted of 6 questions in the form of multiple choice, Yes/No questions, ranking scale

¹ <https://www.mentimeter.com/>

questions, and Open-ended questions where the respondents provided their answers in free text format.

Question 1: Have you ever used a digital inventory? If yes, please provide examples of inventories you have used.

The majority of respondents, totalling 20 out of 32, indicated a lack of prior experience with digital inventory systems. Among those who have utilized such systems previously referenced examples associated with EU-based projects, such as EU-Farmbook, SmartAKIS, and FAIRshare.

Question 2: In your opinion, what are the major challenges while searching for data on a platform? (You may choose more than one of the options available.)

In the question dedicated to finding the major challenges users of digital platforms encounter, answers pertained to the irrelevance of the search results, as well as the lack of advanced filters. They also indicated that unintuitive interface design and the difficulty finding information relevant to their needs pose challenges in utilizing a digital platform.

Question 3: What features or functionalities do you find most helpful when navigating through a digital inventory?

Most responses emphasized the importance of search filters in the navigation of a digital inventory, summing 26 responses out of 32. Over half of the respondents (21), find the presence of a quick overview useful, while advanced search capabilities acquired 13 responses, accounting for less than half.

Question 4: Have you actively participated in a forum and contributed to its threads?

The majority of participants have not actively participated in a forum. Concretely, 20 out of 32 indicated that they have no prior experience with forums participating actively in threads.

Question 5: Do you use social media? Please provide examples of social media that you use (e.g., LinkedIn, Facebook).

Except for one respondent, all participants indicated they use social media, with LinkedIn emerging as the predominant choice, accumulating 26 responses. Some other noteworthy responses were Facebook and Instagram.

Question 6: Please rank the following statements in order of preference:

- 1. I prefer communicating on websites dedicated to specific topics to network.*
- 2. I primarily use social media to communicate and network.*
- 3. I enjoy participating in forums and actively contribute to forum threads.*
- 4. I am familiar with group-chats and enjoy directly messaging others.*

In the question asking participants to rank 4 statements regarding their preferred way of networking, the plurality ranked social media as their first option, while 13 located social media as their second preference. Group chats appear to be the second most favoured means of communication, with forums also accounting for 3rd preferred option.

2.3 Structured interviews

The purpose of the structured interviews was to collaboratively delineate the Information Architecture (IA) of the STRATUS platform (Hartson et al., 2018). IA refers to the structural design of a platform, determining the way information is arranged and how users interact with it. At its core, IA aims to create a logical framework encompassing the layout of content, the relationships

between different pieces of information, and how users should navigate through information. This architecture is divided into three main categories: **pages**, **actions**, and **components**.

Pages form the foundational layer of information architecture, representing the different screens or sections a user navigates through (i.e. the homepage, the inventory, the user's page, etc.). **Actions** refer to the functionalities or interactions available to users within the platform, such as downloading, searching, filtering, or commenting. Lastly, **components** comprise the building blocks of each page and action, encompassing elements such as menus, buttons, icons, and forms.

The anticipated outcome of this exercise was to outline the users' needs through contributions from the consortium, as well as to gather insights from each member involved in various project tasks regarding their vision for the platform and its functionalities. It is worth mentioning that the teams focused mainly on the three main components of the STRATUS platform, namely the inventory, the training material, and the networking component. The total number of participants was 15, split into three groups of five, to facilitate the easier facilitation of the interviews.

For this exercise, three identical boards were created on the Miro² platform, where participants could visualise and illustrate their ideas regarding IA on the three main components of STRATUS. Guided by a moderator from the AUA team, who facilitated the discussion and managed the board, each group devised a distinct IA tailored to their respective preferences and needs. The entire Focus Group lasted 1 hour and 30 minutes, commencing with an introduction to STRATUS's objectives and digital platform. Following this, an explanation of the exercise and the expected outcomes was provided. Participants were then separated into three rooms, where they collaborated with the moderator for the next 45 minutes to create the platform's IA.

In the following section, the progress of each team will be discussed and analysed, presenting the key findings and main points.

² <https://miro.com/>

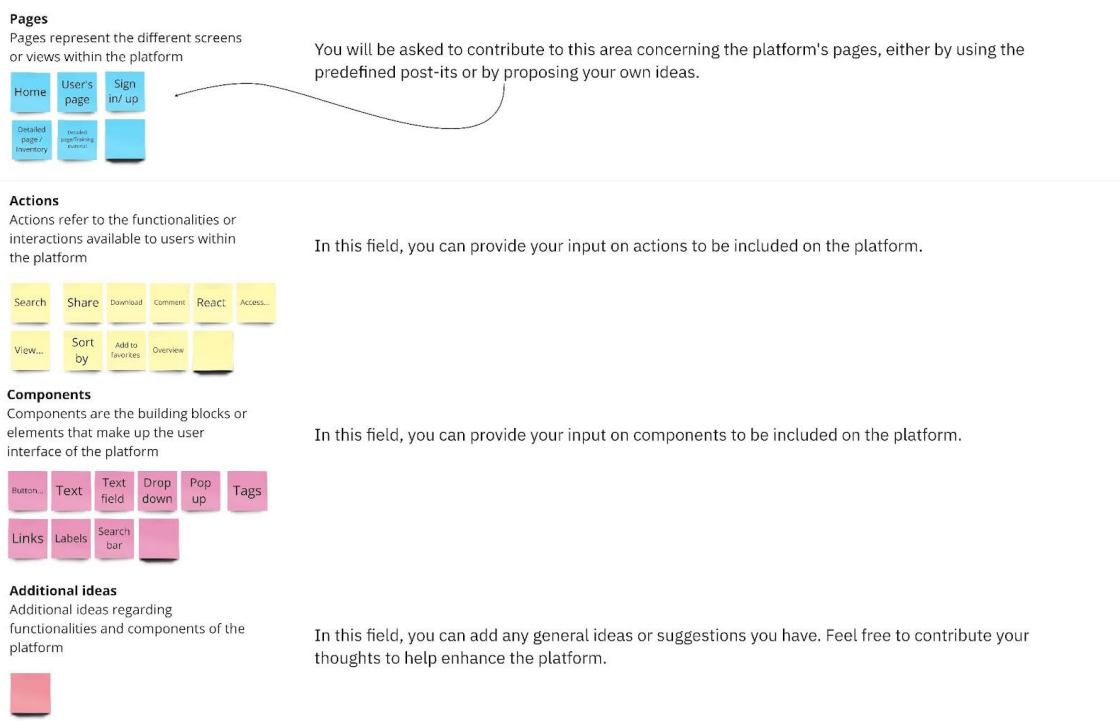


Figure 2: The board upon which participants worked for the IA

2.3.1 First focus group

The first Focus Group started with the **inventory** component emphasising on finding sufficient methods for browsing the material.

- Participants recommended the existence of a search bar, as well as implementing filters based on farming type, location, climate, STRATUS thematics, Technology Readiness Level (TRL), data type, and data collection method, with a particular emphasis on TRL.
- They also discussed the potential for sorting materials by popularity and alphabetically. An individual expressed the idea of classifying the entries color-wise based on the thematics of the project (PF, BBF, SQ).
- Furthermore, the group suggested providing contact information for the platform curator to facilitate feedback and offer more general information about the entries. Regarding the individual entry pages, participants expressed a preference for features that allow sharing of materials, commenting on specific fields, and downloading content.

For the **training material** component, the discussion mirrored earlier themes.

- Participants recommended the application of filters based on the material's target group (mainly advisors) and subject matter.
- The sorting options should include popularity, and a feature enabling users to add entries to a "Favourites" collection was suggested.
- Additionally, participants emphasised the value of including the contact information of the trainer, referring to the individual or organisation responsible for the training material.

- Participants expressed interest in being able to select or change the language of the entry.

For the **training material** component, partners recommended:

- Incorporating quick overview feature that provides key information at a glance, including the duration of the training, objectives, format, topic, and language.
- Filters should be based on the topic and target group, and the training materials should include sufficient references.
- The necessity of providing contact information for the trainers to facilitate inquiries.
- When accessing the detailed page of the training material, participants expressed a desire for the ability to comment, react, and download the material. They also wish to share the material with colleagues, receive recommendations for similar content, and have a quick overview available.
- Additionally, participants want the platform to support video formats and provide the option to add specific entries to their favourites.

Regarding the **networking components**, participants agreed that forums are outdated and exhibit reduced engagement. They considered social media platforms, such as LinkedIn, to be a sufficient solution for networking among CoPs and FINs. An important aspect of networking, as highlighted by the second group, is the ability to track events and cross-visits related to the project via the platform. Additionally, displaying information about the trainers to facilitate following their work was deemed valuable.

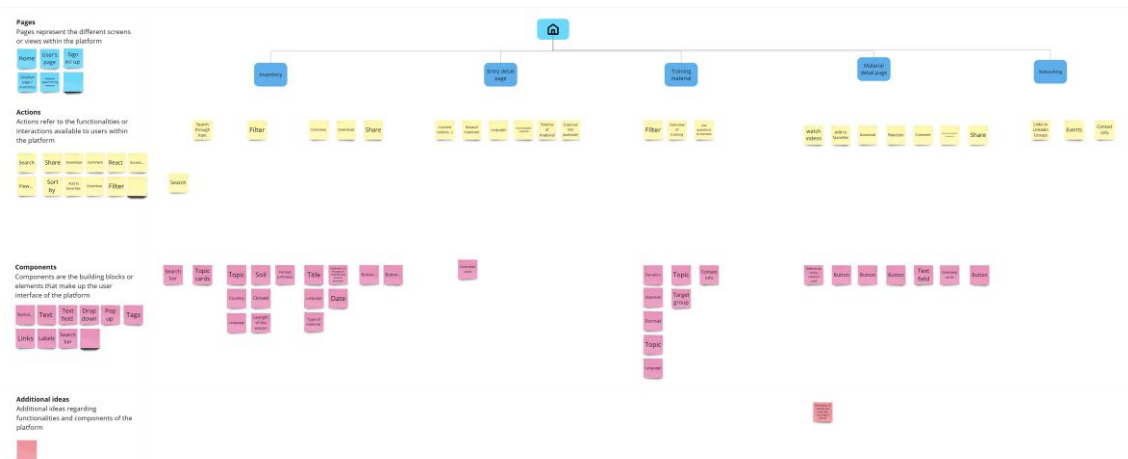


Figure 4: The IA created by focus group 2

2.3.3 Third focus group

The third group initiated the conversation with the **inventory** component, with their preferences aligning with the other two groups.

- Participants stated the need for a search bar and filters regarding the country, the crop, the project's thematics, the year, and the sector related to the material.
- They also discussed the importance of viewing author information and linking to the LinkedIn profile, as well as providing a quick preview of each entry.

The overall feedback from the user needs analysis through the aforementioned participatory events was quite informative and delineated the user's needs around the STRATUS Platform.

It is worth mentioning that all participants were members of the consortium and a fair portion of them had prior experience with similar digital platforms. Hence their participation provide valuable insights since they have encountered difficulties and know the goals and objectives of the task. While the CoPs and FINs were not engaged at this stage of the user needs delineation process, the participants present in the focus groups were representative of the end-user base and their prior experience valuable in navigating this process.

When asked about the difficulties linked to inventories, the responses revolved mainly around the obstacles posed by the amount of information and the lack of sufficient mechanisms to sort and find meaningful data. This is evident from the question regarding the desired functionalities of the platform, where there was an obvious preference for the existence of sufficient search filters, as well as the presence of searching and sorting mechanisms in all three boards of the structured interviews. A lot of emphasis was placed on material that was well categorised with robust metadata and descriptions. Finally, an interest in linking with the metadata established in the EU-Farmbook project was expressed.

Concerning networking, the group presented a preference for social media as a means to communicate about subjects concerning the themes of the project. The vast majority of respondents to the survey are not participating actively in Forums, while all members of the focus groups concurred that Forums nowadays face limited participation. When asked during the survey to rank in order of preference the mediums of communication, group chats, and forums accumulated similar results with websites of specific topics being the least preferred.

Following the insights received from all the aforementioned activities, the following board was created, documenting a suggested Information Architecture for the STRATUS Platform. This information architecture is bound to change, as further user needs are explored, and recontextualization of requirements is made.

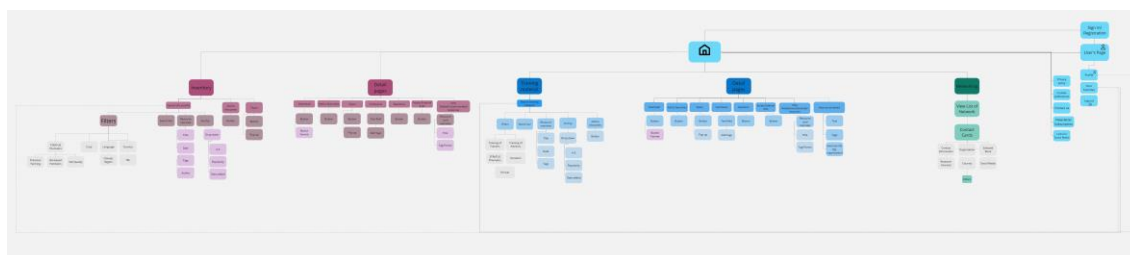


Figure 6: Final information architecture as derived from the insights of all Focus Groups. View the entire board on Miro [here](#).

2.5 Derived user needs

User needs form the cornerstone of any platform's design and are fundamental to the analysis performed. They refer to the desires, goals, preferences, and expectations that users have when

interacting with a product or service. These needs can cover a broad spectrum of factors, including functionality, usability, aesthetics, accessibility, and emotional satisfaction (Heijs, 2022). Table 1 holds user needs extracted from the analysis, resulting in the function requirements. User needs are meant to be read in the format of “As a user, I want to [...] in order to [...]”, which has been abbreviated for brevity. Each user need described is assigned a unique identifier (UN#) to facilitate precise referencing for future use.

User Need	Description
UN01: Filtering	Filter available material according to predetermined filters, to find information of interest more easily.
UN02: Searching	Search through the available material using free text queries, to reach desired content efficiently.
UN03: Overview	Access brief overview of an entry, including date of upload, tags, authors, to specify what an entry is about before accessing the full material.
UN04: Sorting	Sort material by certain parameters (e.g., alphabetically), to easily organize the information displayed.
UN05: Favorite	Add an entry to favorites, to be able to revisit it again later through my profile.
UN06: Sharing	Share materials of the platform to social media.
UN07: Comment	Comment on specific entries in a free-text field, to let others know how I value this entry.
UN08: View comment	See comments on specific entries, to know how others value this entry.
UN09: Reactions	Leave reactions on the material of the platform, to express my stance regarding the material.
UN10: External Resources	Gain access to external resources linked to a specific entry to view other resources related to the material.
UN11: Recommendations	View recommendations for related entries of the platform, to access other entries of interest based on suggestions.
UN12: Multilinguality	Access information in my mother language to comprehend the information delivered to me.
UN13: Networking	Access information regarding individuals in the STRATUS network, to view information on their backgrounds and expertise.
UN14: Calendar view	Access a calendar of the project, to get informed about upcoming events and news.
UN15: Registration	Register to the platform with personal credentials, to keep on track with my activities and favorite entries.

Table 4: List of user needs as defined by the analysis

It is of great importance to note that while a preliminary list of user needs has been defined and described in this report, this list is by no means tentative, and is bound to be explored further based upon the interactions and feedback received during later such endeavours, including with the FINs and CoP, after they begin to frequently meet. These user needs are subject to be revisited and updated or revised during the next deliverables.

Annex 1: Questions of the identification forms

Bio-Based Fertilisers

Question	Answer
Name of the FIN partner submitting the information	
Contact information of the FIN partner	
Region (EU member state)	
Title/Name of the practice	
Which fertilizer type is considered as the standard in this region?	
Describe the practice (minimum 150 words - maximum 750)	
Is the practice a Research Innovation or a Good Practice?	Research Innovation, Good Practice
Name the source of information (in case of a written source, proceed to question 11)	
What was the on-farm issue/challenge/opportunity that lead to the implementation of the practice?	
Specify the time it took to implement the practice and the measures needed to monitor:	
If the source is a written source, please provide the title, type of literature, and a weblink:	
Upload a picture or a video of the practice on the Stratus SharePoint (Round 1 - Pictures) and paste the name of the image file	
Storage safety risk	Substantial, Average, Low
Are there any logistic aspects to consider?	
Skill/education level required for safe and effective application of the BBF	Very low, Rather low, Rather high, Expert
Availability of the BBF in this region	Very low, Somewhat low, Sufficiently available, Abundantly available
Availability of the BBF in the wider EU	Very low, Somewhat low, Sufficiently available, Abundantly available
Can the BBF be applied to a multitude of cultivation techniques, or is the use limited to one or a few techniques? If the latter is true, please specify which techniques are targeted:	

Question	Answer
Targeted crops (please specify where possible)	Grains, Fruits, Nuts, Vegetables, Pulses, Oilseeds, Sugar and tuber crops, Technical crops, Torest trees, Other
Is an influence on soil quality to be expected from implementing the BBF?	
Indicate all soil types suitable for the BBF	Peaty, sandy, clay, loamy, chalky, silty, other
Is it a 'slow release' fertilizer?	No, Yes, No idea
N-P-K composition of the BBF (when known)	
C/N ratio of the BBF (when known)	
Expected availability of nitrogen (N) in the BBF	Lower, Similar, Higher, No idea
Expected availability of potassium (K) in the BBF	Lower, Similar, Higher, No idea
Expected availability of phosphorus (P) in the BBF	Lower, Similar, Higher, No idea
Expected effect on crop yield (compared to the regional standard mentioned above)	Decrease, Similar, Increase, Not sure
Expected effect on crop yield variation (compared to the regional standard mentioned above)	Decrease, Similar, Increase, Not sure
Expected effect on crop quality (compared to the regional standard mentioned above)	Decrease, Similar, Increase, Not sure
Expected effect on crop quality variation (compared to the regional standard mentioned above)	Decrease, Similar, Increase, Not sure
Which costs may increase upon using the BBF?	Unskilled labour, Skilled labour, Equipment, Mineral fertilizers, Herbicides, Pesticides, Fuel, Transportation, Storage, Land, Energy, Other, None, No idea
Which costs may decrease upon using the BBF?	Unskilled labour, Skilled labour, Equipment, Mineral fertilizers, Herbicides, Pesticides, Fuel, Transportation, Storage, Land, Energy, Other, None No idea
Expected long-term/indirect indirect benefits of the BBF	
Is the use as fertilizer the most valuable application of the material at hand?	
Does the BBF qualify for subsidies?	No, Yes, No idea
Status of the legal framework that regulates the implementation of the BBF	There is hardly any, Existing, however with gaps, Well-developed, No idea
Are there any policy barriers complicating the implementation of the BBF?	

Question	Answer
Does the BBF contain any hazardous substances?	
Is the BBF compliant with EU organic farming practices?	
Is the use of the BBF supported by Eco-schemes?	
What is the expected effect on the leaching of the following nutrients: nitrogen, phosphate, and potassium?	
Are there any gaseous emissions to be taken into account upon using the BBF?	No, Yes: Nitrous oxide, Yes: Ammonia, Yes: other than nitrous oxide or ammonia, No idea
Greenhouse gas (GHG) reduction potential of using the BBF	Negative: GHG emissions may increase upon using the BBF, Little or none, Substantial, No idea
Indicate all materials present in the BBF	Digestate, Animal manure, Industrial waste, Agricultural residues, Municipal sludge, Meat/bone meal, Micro-organisms, Insect frass, Compost, Biochar, Other, No idea
Indicate all features of the BBF which may hinder its social acceptance	Noise, Odor, Dust, light, change of landscape, Other, Not applicable, No idea
Which effect is expected from the BBF on the time occupation of the farmer?	None, Time-saving, Moderate increase, Substantial increase, No idea
May the use of te BBF contribute to a better public image of agriculture?	

Table 5: Questions of the BBF identification form

Precision Farming

Question	Answer
Name of the FIN partner submitting the information	
Contact information of the FIN partner	
Region (EU member state)	
Title/Name of the practice	
Which practice is considered as the standard in this region?	
Describe the practice (minimum 150 words - maximum 750)	
Is the practice a Research Innovation or a Good Practice?	Research Innovation, Good Practice

Question	Answer
Name the source of information	
What was the on-farm issue/challenge/opportunity that lead to the implementation of the GP?	
Specify the time it took to implement the practice and the measures needed to monitor:	
If the source is a written source, please provide the title, type of literature, and a weblink:	
Upload a picture or a video of the GP/RI on the Stratus SharePoint (Round 1 - Pictures) and paste the name of the image file	
Skill/education level required for safe and effective application of the practice	Very low, Rather low, Rather high, Expert level
Are there any logistic aspects to be taken into account?	
Can the practice be applied to a multitude of cultivation techniques, or is the use limited to one or a few techniques? If the latter is true, please specify which techniques are targeted	
Targeted crops (please specify where possible)	Grains, Fruits, Nuts, Vegetables, Pulses, Oilseeds, Sugar and tuber crops, Technical crops, Torest trees, Other
Is an influence on soil quality to be expected from implementing the practice?	
Indicate all soil types suitable for the practice	Peaty, sandy, clay, loamy, chalky, silty, other
Expected effect on crop yield	Decrease, Similar, Increase, Not sure
Expected effect on crop yield variation	Decrease, Similar, Increase, Not sure
Expected effect on crop quality	Decrease, Similar, Increase, Not sure
Expected effect on crop quality variation	Decrease, Similar, Increase, Not sure
Which costs may increase upon using the practice?	Unskilled labour, Skilled labour, Equipment, Mineral fertilizers, Herbicides, Pesticides, Fuel, Transportation, Storage, Land, Energy, Other, None, No idea
Which costs may decrease upon using the practice?	Unskilled labour, Skilled labour, Equipment, Mineral fertilizers, Herbicides, Pesticides, Fuel, Transportation, Storage, Land, Energy, Other, None No idea
Expected long-term/indirect economic benefits of the practice:	

Question	Answer
Does the practice qualify for subsidies?	
Status of the legal framework that regulates the practice	There is hardly any, Existing, however with gaps, Well-developed, No idea
Are there any policy barriers complicating the implementation of the practice ?	
Does the practice involve the use of hazardous substances, and if this is the case, which one(s)?	
Is the practice supported by Eco-schemes?	
What is the expected effect on the leaching of the following nutrients: nitrogen, phosphate, and potassium?	
Are there any gaseous emissions to be considered upon application of the practice?	No, Yes: Nitrous oxide, Yes: Ammonia, Yes, other (please specify), No idea
Greenhouse gas (GHG) reduction potential of the practice?	Negative: GHG emissions increase due to the implementation of the practice, Little or none, Substantial, No idea
Does the practice involve the application of one or more of the following materials?	Digestate, Animal manure, Industrial waste, Agricultural residues, Municipal sludge, Meat/bone meal, Micro-organisms, Insect frass, Compost, Biochar, Other, No idea
Indicate all features of the practice which may hinder its social acceptance	Noise, Odor, Dust, light, change of landscape, Other, Not applicable, No idea
Which effect is expected from the practice on the time occupation of the farmer?	None, Time-saving, Moderate increase, Substantial increase, No idea
May the practice contribute to a better public image of agriculture?	
May the practice improve the farmer's self-image (being proud, e.g.)?	

Table 6: Questions of the PF identification form

Soil Quality

Question	Answer
Name of the FIN partner submitting the information	
Contact information of the FIN partner	
Region (EU member state)	
Title/Name of the practice	

Question	Answer
Which practice is considered as the standard in this region?	
Describe the practice (minimum 150 words - maximum 750)	
Is the practice a Research Innovation or a Good Practice?	Research Innovation, Good Practice
Name the source of information	
What was the on-farm issue/challenge/opportunity that lead to the implementation of the GP?	
Specify the time it took to implement the practice and the measures needed to monitor:	
If the source is a written source, please provide the title, type of literature, and a weblink:	
Upload a picture or a video of the practice on the Stratus SharePoint (Round 1 - Pictures) and paste the name of the image file	
Skill/education level required for safe and effective application of the practice	Very low, Rather low, Rather high, Expert level
Are there any logistic aspects to be taken into account?	
Can the practice be applied to a multitude of cultivation techniques, or is the use limited to one or a few techniques? If the latter is true, please specify which techniques are targeted	
Targeted crops (please specify where possible)	Grains, Fruits, Nuts, Vegetables, Pulses, Oilseeds, Sugar and tuber crops, Technical crops, Torest trees, Other
Indicate all soil types suitable for the practice	Peaty, sandy, clay, loamy, chalky, silty, other
Expected effect of the practice on crop yield	Decrease, Similar, Increase, Not sure
Expected effect of the practice on crop yield variation	Decrease, Similar, Increase, Not sure
Expected effect of the practice on crop quality	Decrease, Similar, Increase, Not sure
Expected effect of the practice on crop quality variation	Decrease, Similar, Increase, Not sure
Which costs may increase upon using the practice?	Unskilled labour, Skilled labour, Equipment, Mineral fertilizers, Herbicides, Pesticides, Fuel, Transportation, Storage, Land, Energy, Other, None, No idea

Question	Answer
Which costs may decrease upon using the practice?	Unskilled labour, Skilled labour, Equipment, Mineral fertilizers, Herbicides, Pesticides, Fuel, Transportation, Storage, Land, Energy, Other, None No idea
Expected long-term/indirect economic benefits of the practice	
Does the practice qualify for subsidies?	
Status of the legal framework that regulates the practice	There is hardly any, Existing, however with gaps, Well-developed, No idea
Are there any policy barriers complicating the implementation of the practice?	
Does the practice involve the use of hazardous substances, and if this is the case, which one(s)?	
Is the practice supported by Eco-schemes?	
What is the expected effect on the leaching of the following nutrients: nitrogen, phosphate, and potassium?	
Are there any gaseous emissions to be taken into account upon implementing the practice?	No, Yes: Nitrous oxide, Yes: Ammonia, Yes, other (please specify), No idea
Greenhouse gas (GHG) reduction potential of the practice:	Negative: GHG emissions increase due to the implementation of the GP/RI, Little or none, Substantial, No idea
Does the practice involve the application of one or more of the following materials?	Digestate, Animal manure, Industrial waste, Agricultural residues, Municipal sludge, Meat/bone meal, Micro-organisms, Insect frass, Compost, Biochar, Other, No idea
Indicate all features of the practice which may hinder its social acceptance	Noise, Odor, Dust, light, change of landscape, Other, Not applicable, No idea
Which effect is expected from the practice on the time occupation of the farmer?	None, Time-saving, Moderate increase, Substantial increase, No idea
May the practice contribute to a better public image of agriculture?	
May the practice improve the farmer's self-image (being proud, e.g.)?	

Table 7: Questions of the SQ identification form

Annex 2: Visual representation of survey responses



Figure 7: Word cloud of responses for question 1: Have you ever used a digital inventory? If yes, please provide examples of inventories you have used.

In your opinion, what are the major challenges while searching for data on a platform? (You may choose more than one of the options available.)

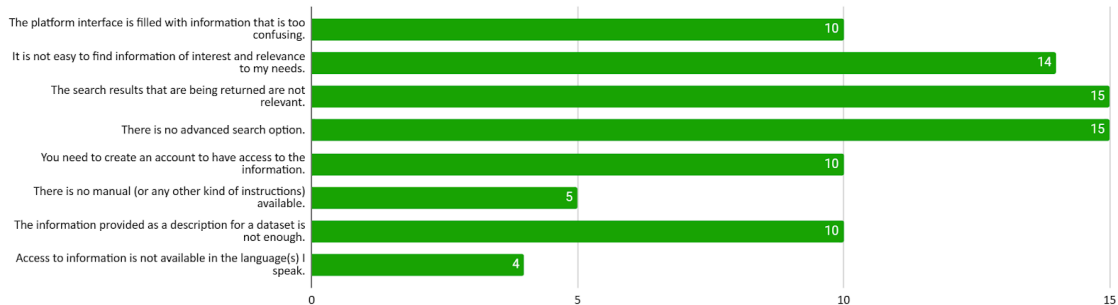


Figure 8: Responses to question 2: In your opinion, what are the major challenges while searching for data on a platform?

What features or functionalities do you find most helpful when navigating through a digital inventory?

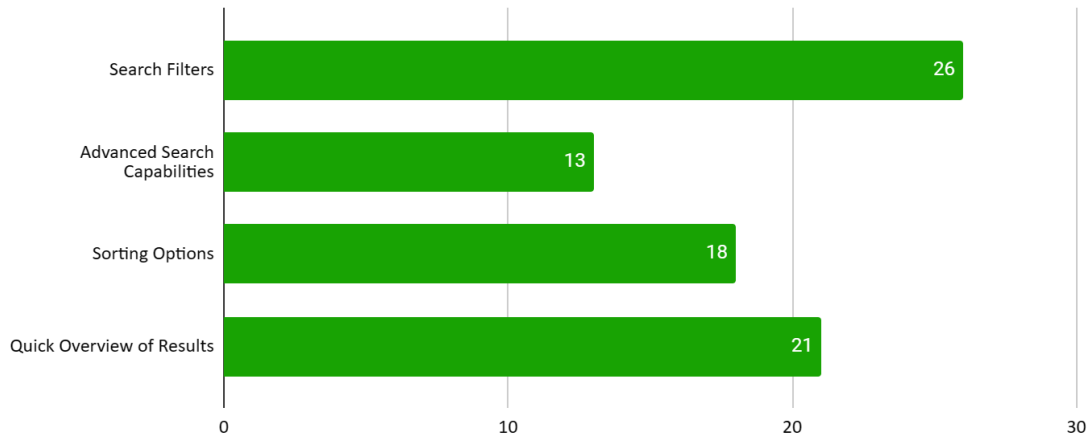


Figure 9: Responses to question 3: What features or functionalities do you find most helpful when navigating through a digital inventory?

Have you actively participated in a forum and contributed to its threads?

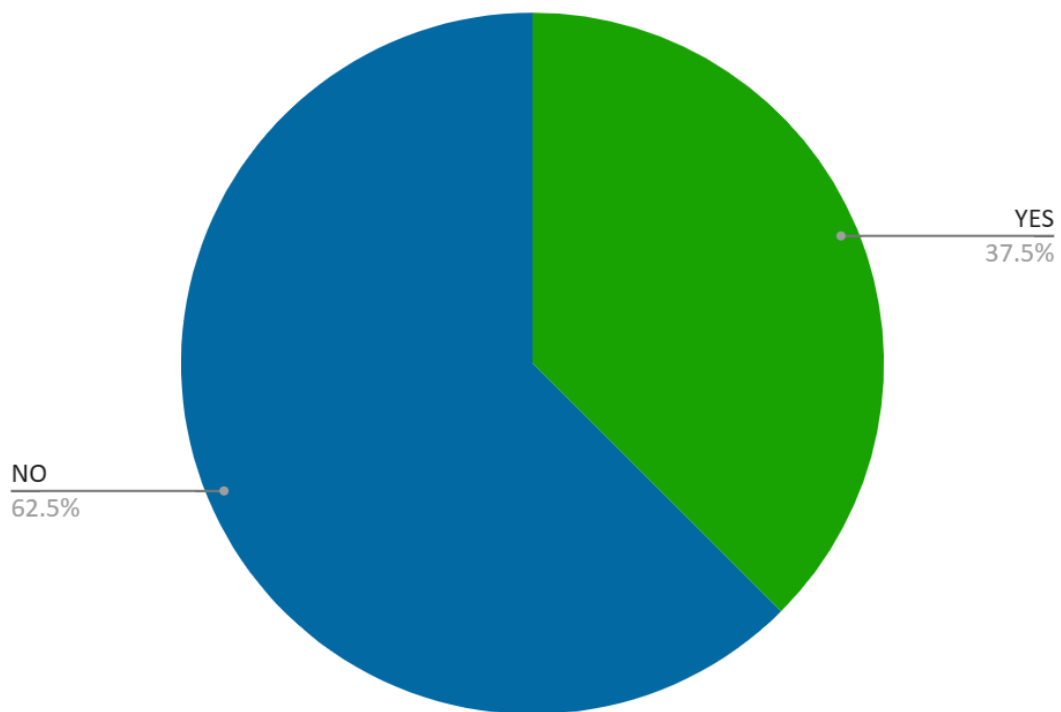


Figure 10: Responses to question 4: Have you actively participated in a forum and contributed to its threads?

Do you use social media? Please provide examples of social media that you use (e.g., LinkedIn, Facebook).

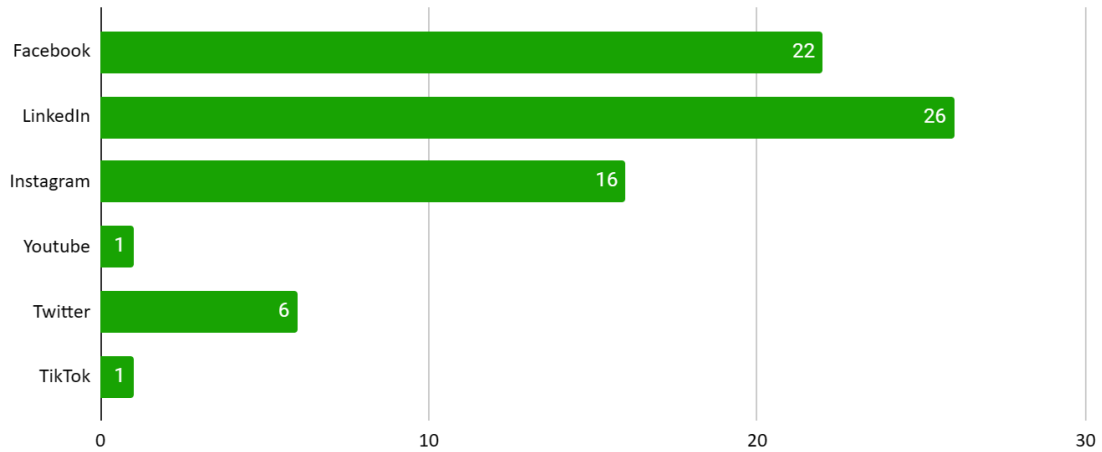


Figure 11: Responses to question 5: Do you use social media? Please provide examples of social media that you use"

Please rank the following statements in order of preference.

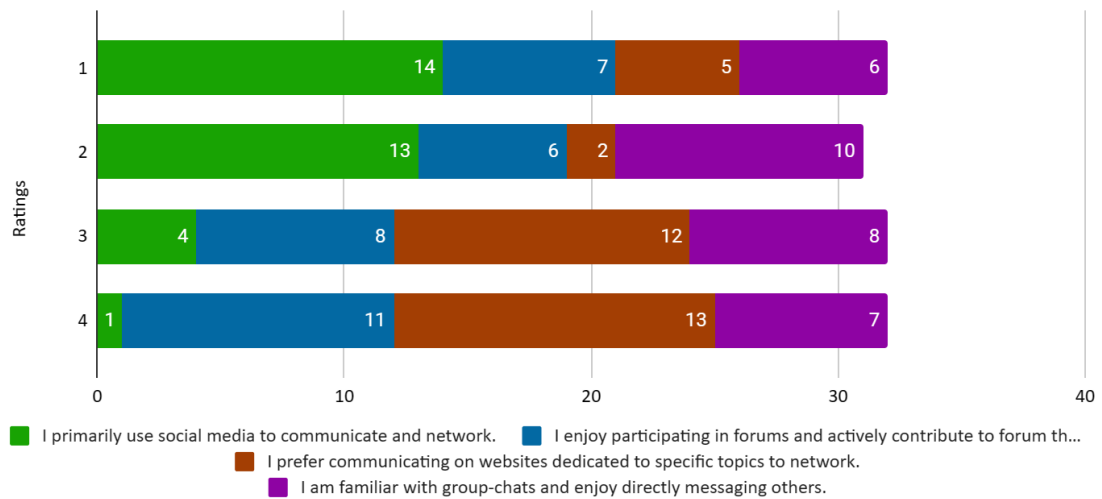


Figure 12: Responses to the question 6: Please rank the following statements in order of preference"

References

- Hartson, R., & Pyla, P. S. (2018). *The UX book: Agile UX design for a quality user experience*. Morgan Kaufmann.
- Heijs, W. (2022). *User needs by Systematic Elaboration (USE): A theory-based method for user needs analysis, programming and evaluation*. Springer Nature.



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