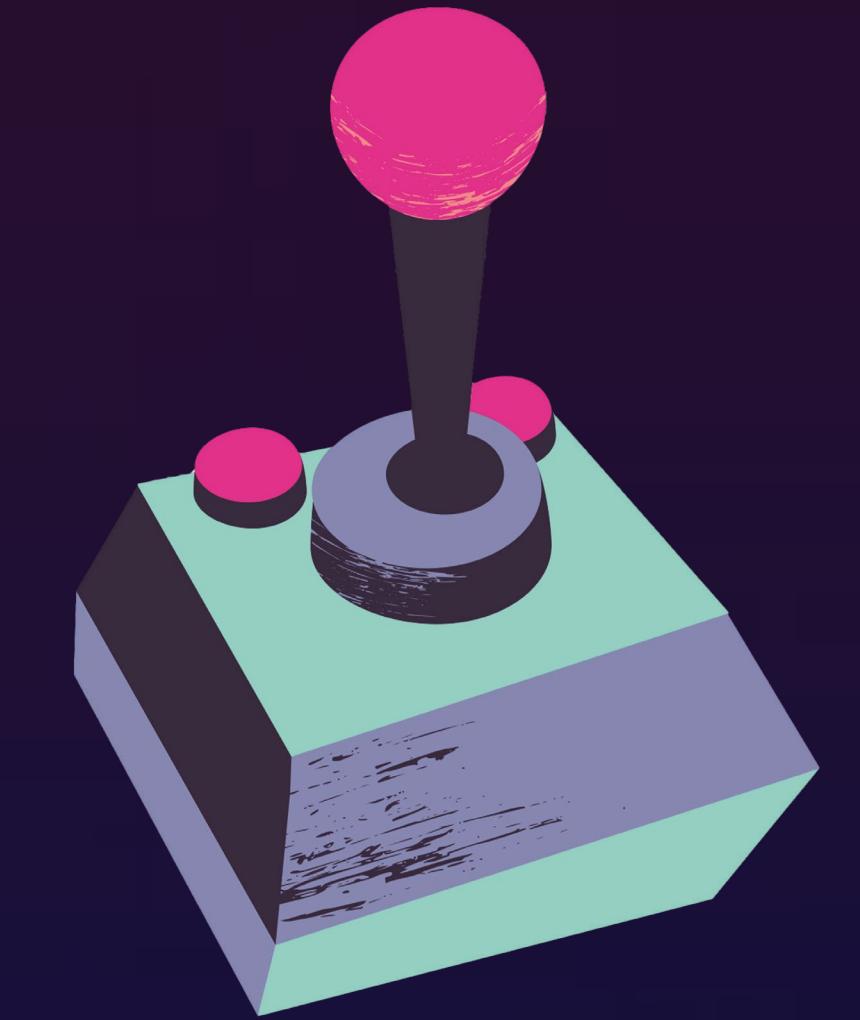


**PLAYED**  
by Vinted

# PROJECT MANAGEMENT REPORT



**JSOS**

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# Introduction

As the years go by, we all develop a certain degree of nostalgia for our younger days. The games we played, the food we ate, the music we listened to – they all make us feel something.

Aligning marketing strategies with emotion has already proven to be successful, but tapping into fond memories can be an invaluable tactic, especially for engaging millennials (those born between 1981 and 1996).

Old-school video gaming can evoke a strong, wistful feeling in people who played these games “back in the day.” The experience combines a sense of comfort with some escapism, bringing back all sorts of positive thoughts and emotions that are enjoyable for the player. It’s like thumbing through old memories, with each taking us on a little journey in the Wayback machine to an idealised remembrance of our earlier years. That can be a part of the increasing interest in old-school video games, but there is a lot more.

Early games were severely limited in what the technology was capable of, so the gameplay was shaped by what could and could not be done. Games like Pong, Atari (2600), and text adventures made clever use of what was available, and simple, or non-existent graphics were standard fare. But limitations are famously fuel for inventiveness and good design. Working within the constraints of the time meant game creators had to rely heavily on long standing principles of what makes for good gameplay. They worked to craft experiences that combined rules (game mechanics) with a measure of novelty while mixing in the challenge. They distilled ideas about what kinds of activities were fun and found ways to infuse that essence into what they were creating.

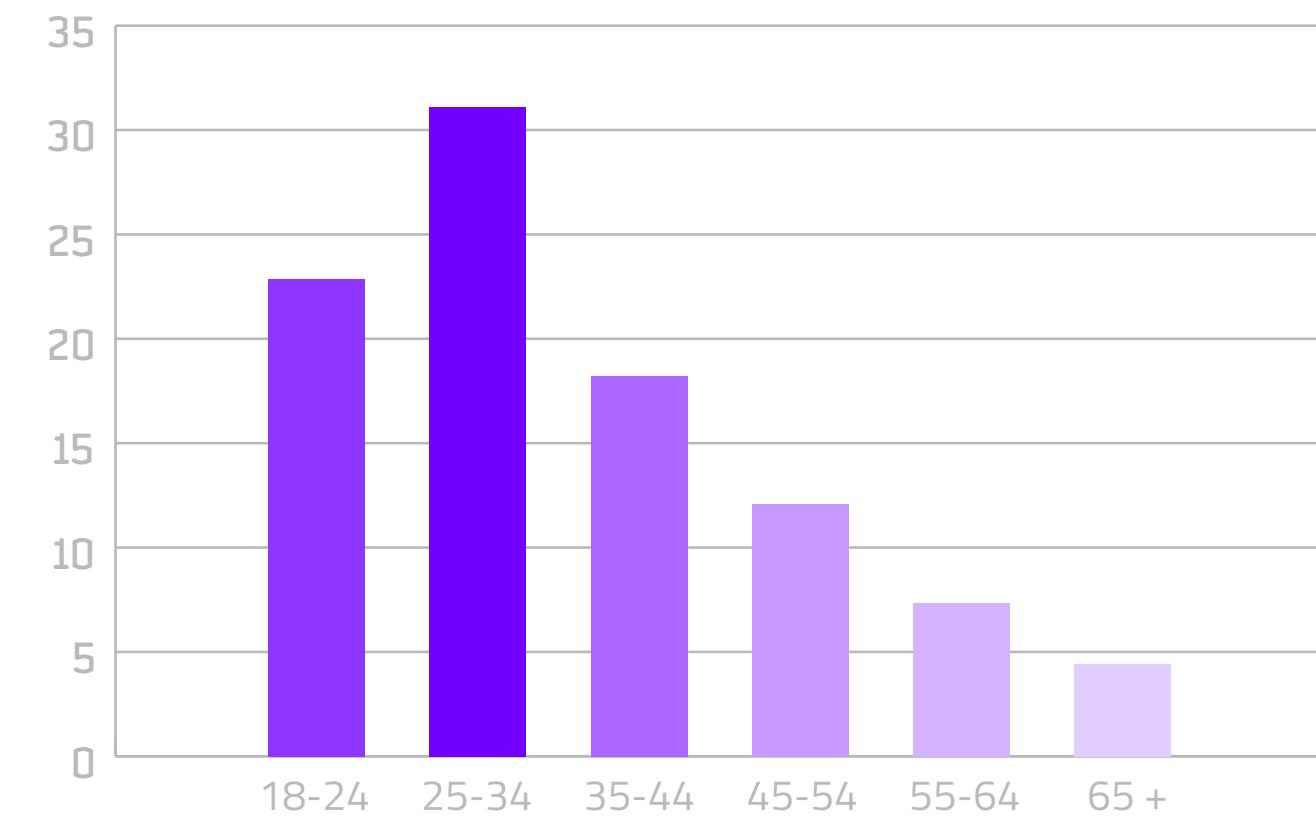
Good gameplay design transcends technology. So retro games shouldn’t be dismissed as mere nostalgia but also a good example of design since the gameplay creates engaging experiences in older games.

By the way, we cannot forget about the time we are living and the whole experience we all now have with remote purchasing. So the key is to create an emotional hook using nostalgia while also offering something new.

PLAYED is designed to be a novel app based on the interface of the famous app Vinted, the online marketplace for buying, selling and exchanging new or second-hand items is mainly focused on clothing and accessories. Our idea is to develop a “Vinted-twin” application, for allowing the Vinted team to expand their audience. In May 2022 two new categories were added to Vinted: Entertainment and Pet care. In the former, it is possible to find also video games and consoles, but these items are presented within toys, collectable cards, books, CDs, vinyl, etc. Organised as it is, this category, in our opinion, doesn’t bring a completely different audience to the app but it is made to fit with the users that already know the marketplace under consideration.

What we are proposing is thus an almost twin marketplace as Vinted but with much more attention to a new audience, with specific needs, interests and motivations. In fact, looking at the average user’s age, based on the Vinted website accesses, is between 25-34, while we are taking into consideration a new target audience.

Our goal with this project is to design the user experience for the new app’s section. We start by analysing PLAYED’s user base to understand which user segments our product should cater to and what are the needs of such users. Next, we analyze the existing resources, which include the Vinted app. We then perform a feasibility study to define the context of the service and the tasks that the intended users can be expected to perform on the app. Lastly, we produce a design proposal, which we subject to inspection and user testing. We end up with what we think is a usable and complete design that can succeed in helping the end users of PLAYED to access the possibilities offered by the app in a meaningful and effective way.



Vinted Data  
<https://www.similarweb.com/it/website/vinted.com/#demographics>

# 1. Ethnographic research

## 1.1 Segmentation

An application that offers the possibility of buying and selling vintage consoles is not a primary need but represents a passion for nostalgic people who were born during the "golden era" of video games: the 80s. This passion could be considered as belonging to the highest level in the Maslow's hierarchy of needs, thus the self-actualisation level.

For this reason, we decided to focus our attention on a specific part of the population which can be interested in engaging with this product, composed of nostalgic people who wanted to have those games when they were children and couldn't have them or, on the other hand, had them and want to buy them again either for playing or for adding them to their personal collection. All people interested in retro gaming not belonging to the two above-mentioned categories are part of our target audience too.

### 1.1.1 Demographic segmentation

According to this idea, we are looking for:

- People of both sexes born in the 80s/beginning of 90s who are passionate about retro gaming
- People interested in collecting vintage consoles and games, but not actually using them
- People interested in collecting vintage consoles and games and actually using them
- People passionate about gaming, but not born in the above-mentioned period of time, who are willing to spend a considerable amount of money for having fun while playing them or collecting them
- People interested, on the other hand, on selling the vintage consoles and/or video games (either people not passionate about retrogaming having them from their childhood or passionate people having more items of the same kind and willing to earn some money from their selling).

We can segment our population based on age (x-axis) and the amount of money it is willing to spend (y-axis). We also have excluded people who are not in the age range and people who have different interests than retro gaming.

By looking at the graph [1] we can see that the two main targets are people ageing from 30 to 49, corresponding to people born in the golden age of video games.

For what concerns the sales of the vintage consoles and video games, we have built another graph having as axes the amount of money which is likely to be paid by users (y-axis) and the conditions of the item sold - perfect, good, acceptable (x-axis) [2].

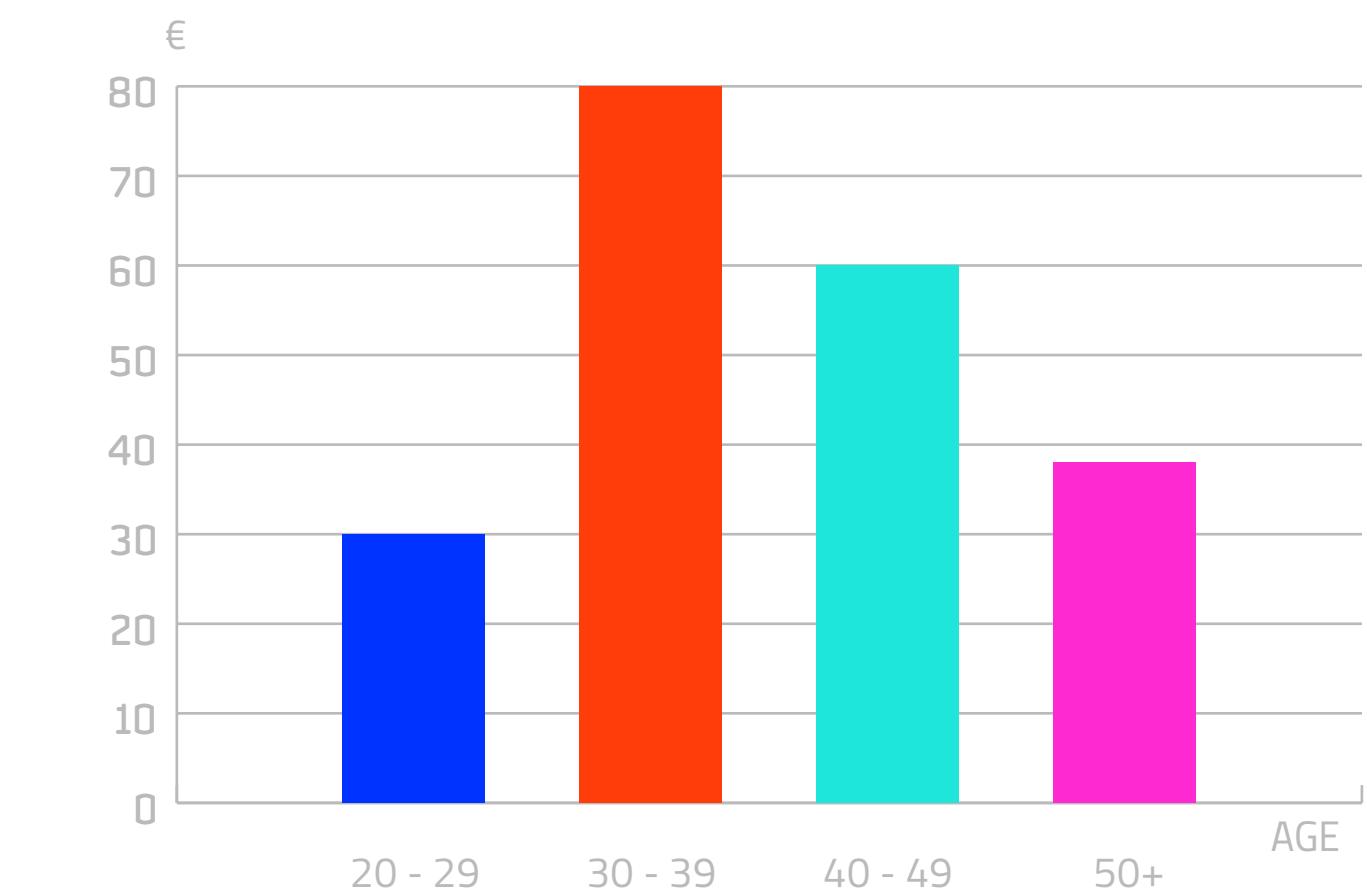
### 1.1.2 Psychographic segmentation

We expect our target users to be familiar with e-commerce websites, curious and experts in the videogame field. Since the product we are selling are not ordinary video games and consoles, but we are dealing with retro-gaming, we expect them to have specific competencies about the products and having high expectations on the physical conditions of the product, along with the efficiency of it (working items, no missing pieces, etc.).

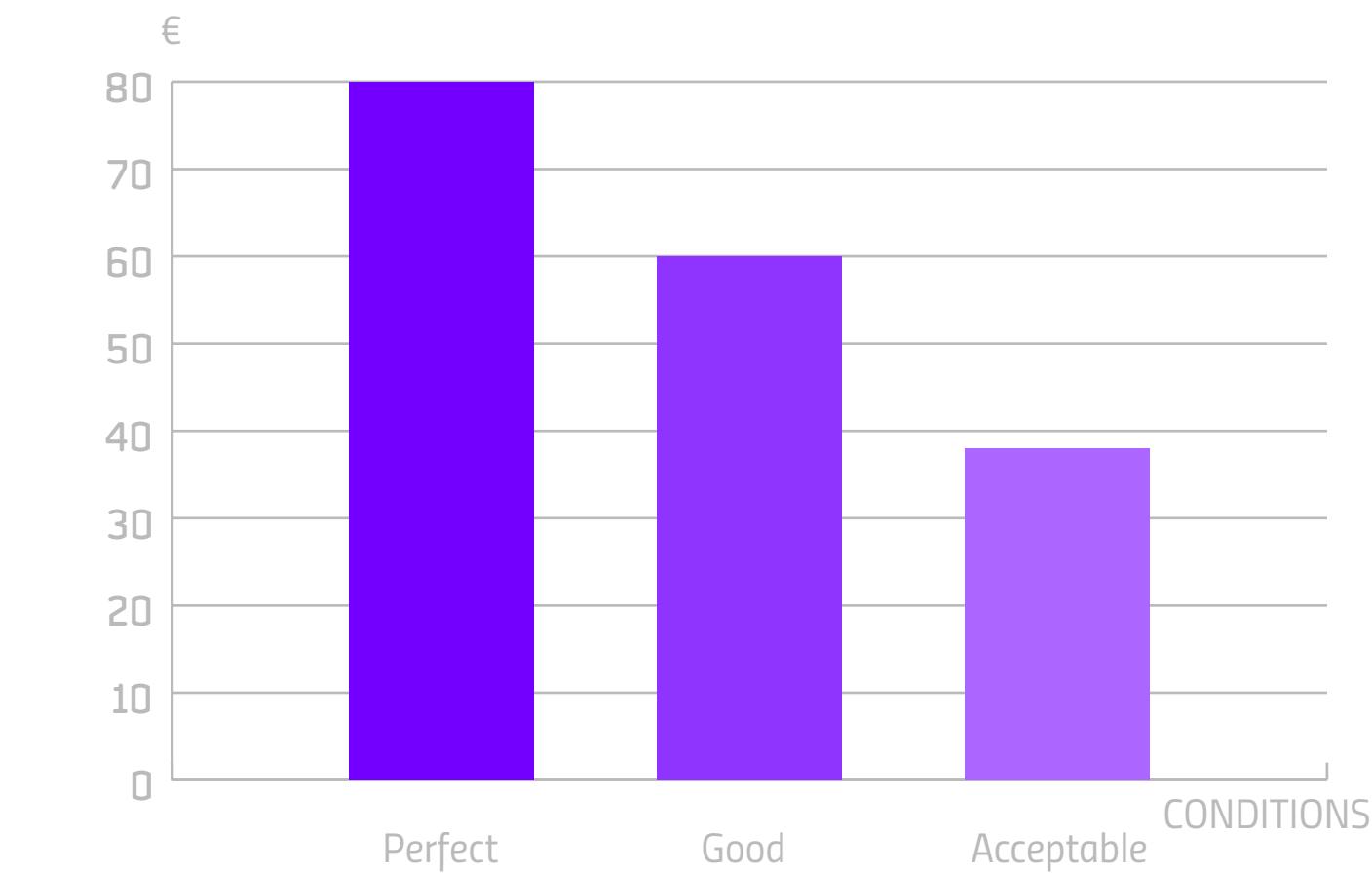
### 1.1.3 Target segments

From the graphs is thus clear that our main target segments are two:

- people ageing between 30 and 49 years old, nostalgic about their childhood games, willing to spend a considerable amount of money for having vintage consoles and video games, either for playing with them or, more probably, to keep them as heirloom in their collection,
- people selling vintage consoles and videogames who have had them since their childhood but who are not passionate about retrogaming and want to have a small income by selling them, or people passionate about these items who already have the same console or video game and want to earn some money by selling it.



[1] Graph showing the predicted target users statistics



[2] graph showing the likely amount of money spent by users users basing on items conditions

## 1.2 User Research

### 1.2.1 Survey

Our user research consists of a questionnaire (a google form both in Italian and English, that can be found at the following link <https://forms.gle/c3RKsfXBAm2pvjnWA>) with user samples chosen from our demographics analysis. Through the interviews we are willing to determine:

- Whether the identified segments of the section 1.1.3 constitute good targets for the PLAYED application.
- Whether they differ significantly in terms of **needs** and **objectives**
- Highlight what the users expect from our application and whether they would find it useful or not

We first presented a small explanation of the PLAYED app:

*"PLAYED aims at satisfying the needs of a specific target audience, interested in buying and selling retro-gaming items, such as consoles and video-games. Given the lack of offer in this field within the current e-commerce services, which allow to sell these products but within a bigger set of products, we have thought of developing an application entirely dedicated to that, based on the design of the famous application for second-hand clothes, Vinted. Our aim is to offer an unique experience, focusing on the needs of our target audience, made both from sellers and buyers: a direct contact with the seller is offered through a system of direct messages; the items are divided by brand, type (console or video-game) and conditions (perfect, good, acceptable), with also a photo of the product, giving thus the possibility to the users to satisfy all their needs. We are here to ask you a few questions about our idea and offer to you the possibility to be part of our little effort in simplifying the life of nostalgic, passionate people like (we hope) you! Thank you for your kindness and support, it means a lot to us!"*

The PLAYED Team.

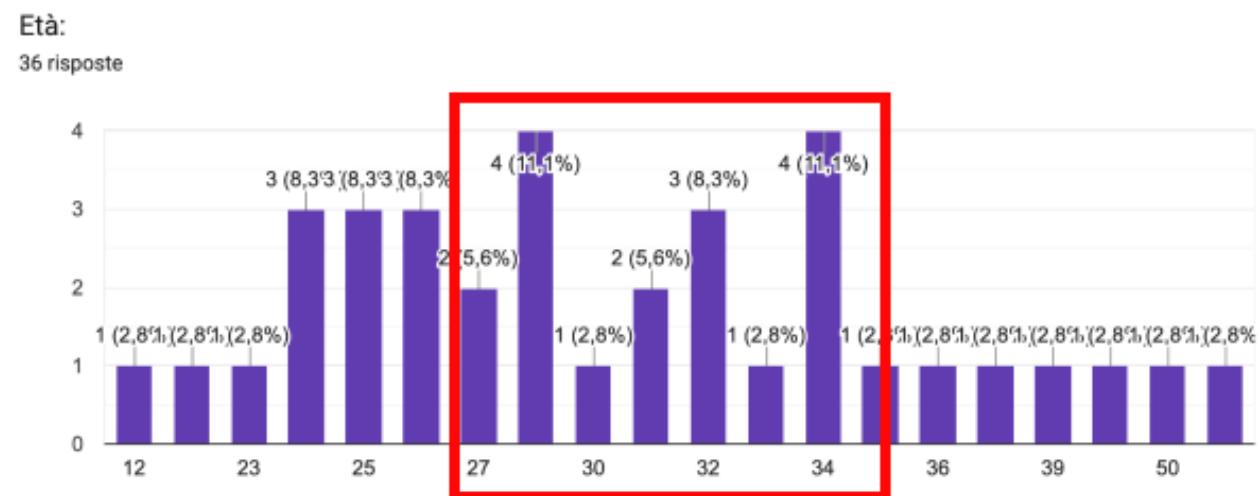
We have then asked our sample the following questions:

1. Name
2. Age
3. Occupation
4. Hobby/Hobbies
5. Are you familiar with e-commerce websites?
6. Have you ever sold/bought some vintage console/video-game online?
7. Are you satisfied by the services they offer?
8. Are you interested in the topic and function of the application?
9. Would you use it?
10. If the answer is yes: Would you use it to sell or buy retro-gaming items?
11. If the answer is no: Is it because you are not interested in the topic or is it because of how we have designed it?
12. Would you change something in the way we decided to design the functioning of the service? Explain what and why.
13. Would you trust the sellers about the conditions of the items? Do you find the possibility to chat with them useful?
14. How much would you pay (euro) for a vintage video-game/console in perfect conditions?
15. How much would you pay (euro) for a vintage video-game/console in good conditions?
16. How much would you pay (euro) for a vintage video-game/console in acceptable conditions?

### 1.2.2 Results

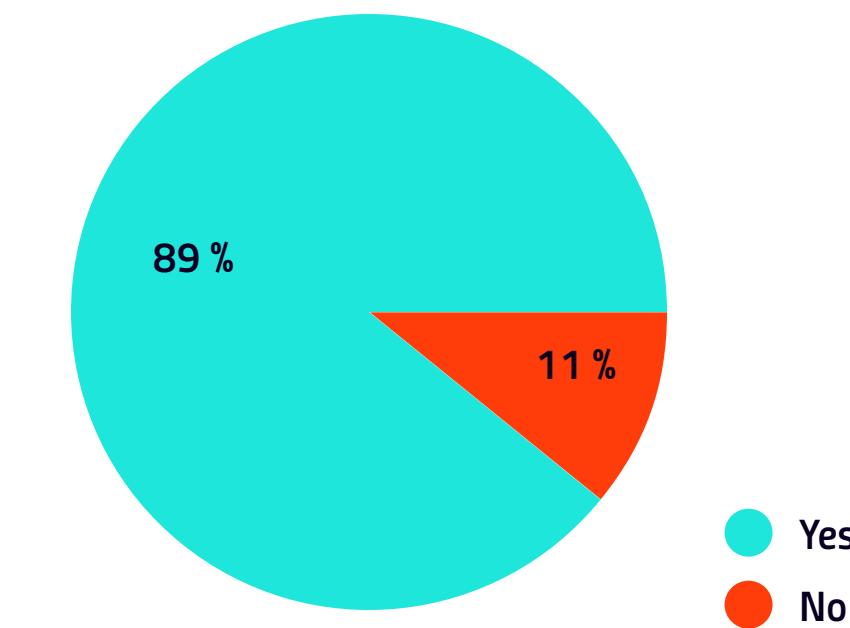
From the survey, to which various people from different ages have answered, we can confirm that the target audience is composed of people born between the end of the 80s and the beginning of the 90s.

The distribution of the survey participants based on age



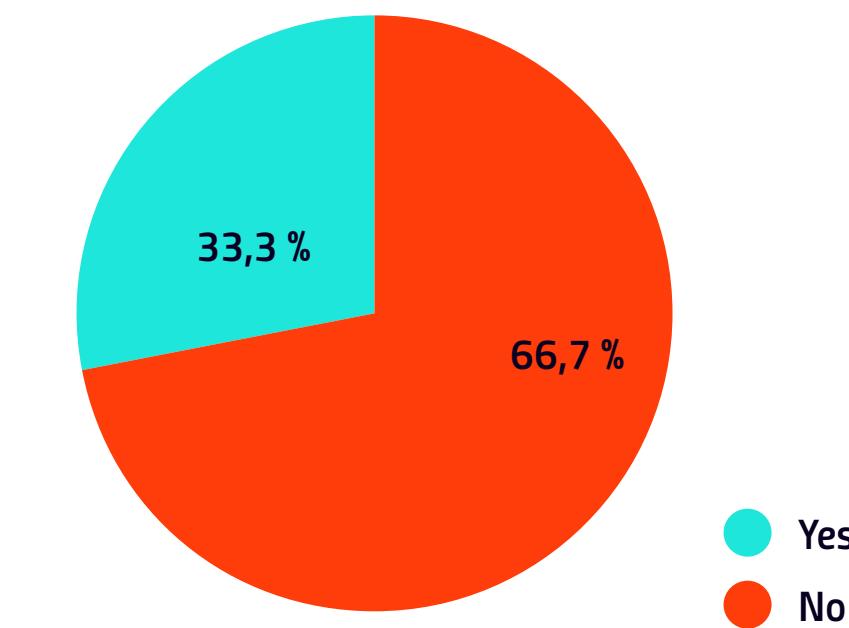
Almost all the people who answered the survey were familiar with e-commerce websites.

Statistics based on answers to the 5<sup>th</sup> question:  
"Are you familiar with e-commerce websites?"



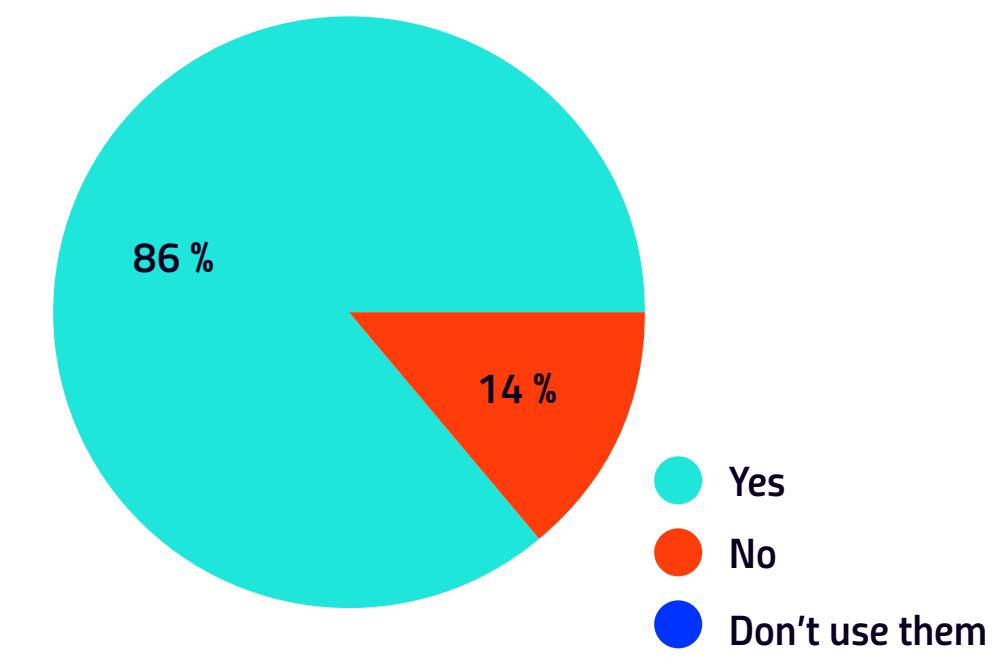
It resulted that the majority of people have never sold/bought a vintage console or video-game on an e-commerce website.

Statistics based on answers to the 6<sup>th</sup> question:  
"Have you ever sold/bought some vintage console/video-game online?"



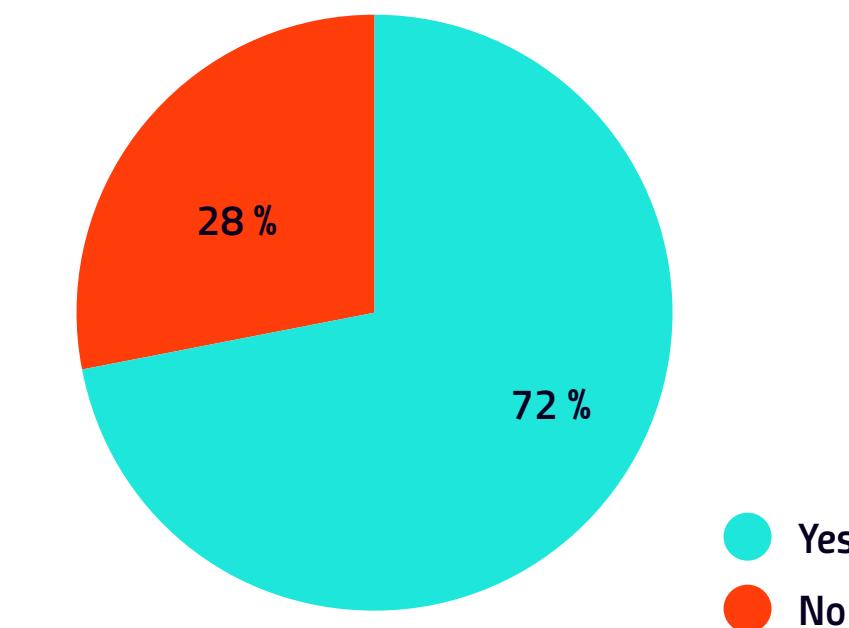
And were satisfied about the service they offer:

Statistics based on answers to the 7<sup>th</sup> question:  
"Are you satisfied by the services they offer?"



But almost all the participants were interested in the service offered and would like to use the application:

Statistics based on answers to the 8<sup>th</sup> and 9<sup>th</sup> questions:  
"Are you interested in the topic and function of the application? Would you use it?"

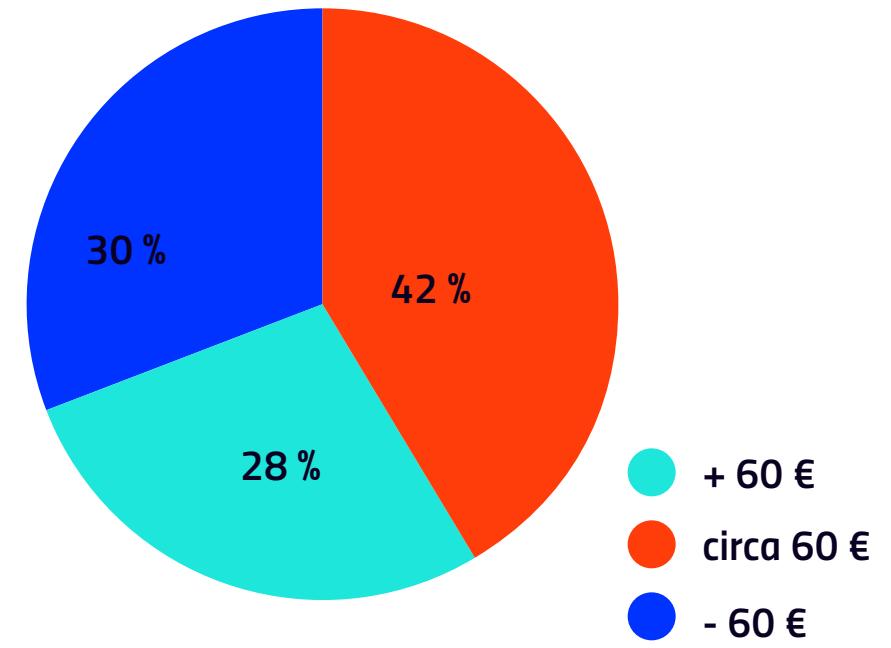


It resulted that the majority of people who answered in a positive way to the previous question, would like to use the service for buying new items, either for nostalgic feelings about their childhood or for adding them to their personal collection.

For what concerns the people who answered in a negative way, they were mainly disinterested in the topic of the service.

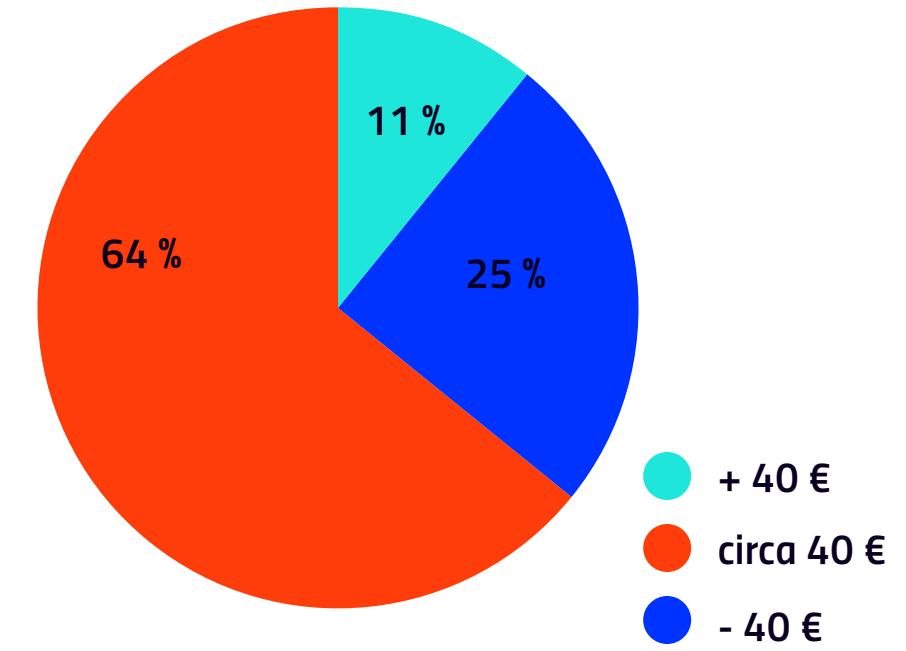
For what concerns the prices, we can confirm our previsions since 41% of the participants agreed on paying around 60 euros for a vintage console/video-game in perfect conditions:

**Statistics based on answers to the 14<sup>th</sup> question**  
"How much would you pay (euro) for a vintage video-game/console in perfect conditions?"



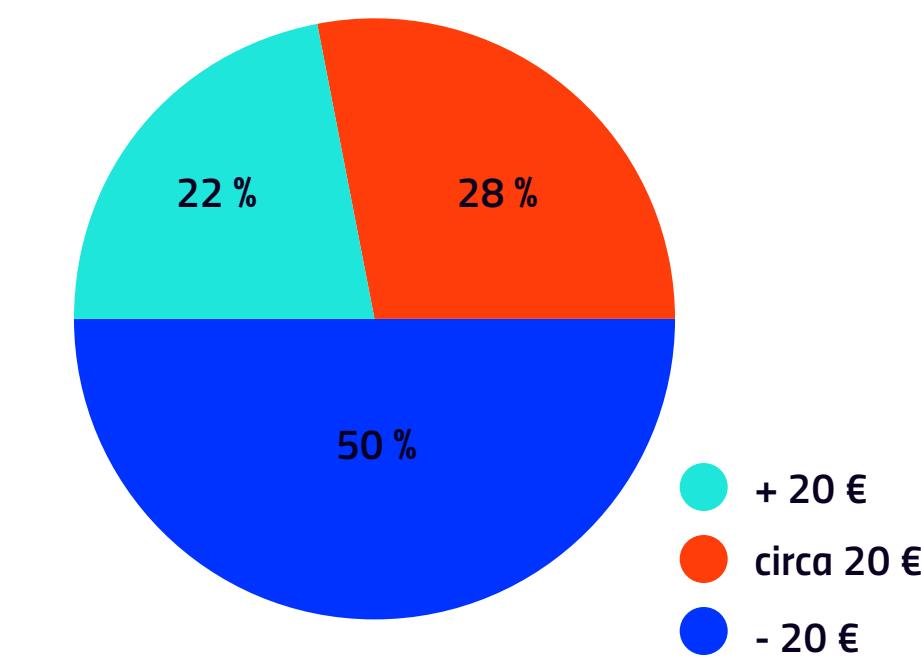
They also agreed on the price of a vintage console/video-game in good conditions. In fact, almost 64% of the participants are willing to pay around 40 euros.

**Statistics based on answers to the 15<sup>th</sup> question:**  
"How much would you pay (euro) for a vintage video-game/console in good conditions?"



Lastly, they didn't agree on the price of a vintage console/video-game in discrete conditions: 50% of the participants are willing to pay less than 20 euros.

**Statistics based on answers to the 16<sup>th</sup> question:**  
"How much would you pay (euro) for a vintage video-game/console in acceptable conditions?"



### 1.2.3 Suggestions

From the two open questions, one asking for feedback on the improvements and changes that could be made both in the design and functioning of the app, and the other asking if they would trust the sellers on the conditions of the items, we had a lot of suggestions, based mainly upon the possibility to get scammed and the offer of a guarantee from the service itself, which is actually already offered by the application on which we are basing our service, Vinted, but in general they all found the possibility to chat with the seller very useful.

## 2. Assessment of existing resources

In this section we would like to assess some resources that already exist. The first is "Vinted" itself, the application on which we are basing our service and for which we are developing it. The others are the twin applications, "Zalando" and "Zalando Privé"; the online auction website Catawiki and the StockX website.

### Vinted

Vinted is currently one of the most popular applications for buying and selling used goods. The user can search in a lot of categories (clothes, accessories, shoes, etc..) and they recently added a new section for used consoles and video games.

It is obviously created for the largest possible audience, but we found interesting hints:

- an easy connection between buyer and seller through a chat;
- the possibility to filter products by the conditions of the goods;
- the possibility to make an offer to the seller.

### Zalando and Zalando Privé

Zalando is the main application, on which Zalando Privé is based. It is an e-commerce website - and application - specialised in selling clothes, shoes and other accessories.

Zalando Privé is instead an online outlet, with limited daily offers that expire every one/two days.

Even if Zalando (and its twin) does not sell anything about gaming, we found interesting the idea of splitting the application into two different ones, each focused on a specific service, even if the products are the same. We are indeed aiming at developing PLAYED as the specific application of Vinted entirely devoted to retrogaming.

### Catawiki

Catawiki could be a useful resource for the PLAYED application. Even if it collects a large range of items, from artworks to clothes, it also sells retrogaming items, focusing on the possibility of making timeout offers to the sellers. It offers both a mobile application and a desktop website. The interesting point is the expert estimate, based on the conditions and rareness of the item, so that the buyer can make a better and more accurate offer.

### StockX

StockX is another e-commerce website that we found inspirational for our application. It sells every type of item, including vintage consoles. The interesting factor in this website is the approach to the selling: every product is rated, priced and packaged by the StockX team, allowing thus a transparent transaction for buying the products. This could be useful for our service, too.



## 2.1 Expert Usability Review

### 2.1.1 Choice of guidelines

We decided to analyse the products above discussed by choosing two guidelines: Nielsen's usability heuristics and UK's government design principles.

#### Nielsen's usability heuristics

Jakob Nielsen, in 1994, he collected and released a set of evaluation principles for usability heuristics that reflected what he had learned. Today, after nearly 30 years and the transformation of the computer into a smartphone, Nielsen's principles still stand strong.

Human-centred design amplified the importance of the user, and design processes have adapted accordingly; however, though Nielsen's principles have remained universal across all screen types, with the continued rise in the use of mobile devices, the emphasis is on mobile interfaces. They are called "heuristics" because they are broad rules of thumb and not specific usability guidelines.

#### 1. Visibility of system status

**The design should always keep users informed about what is going on, through appropriate feedback within a reasonable amount of time.**

When users know the current system status, they learn the outcome of their prior interactions and determine next steps. Predictable interactions create trust in the product as well as the brand.

#### 2. Match between system and the real world

**The design should speak the users' language. Use words, phrases, and concepts familiar to the user, rather than internal jargon. Follow real-world conventions, making information appear in a natural and logical order.**

The way you should design depends very much on your specific users. Terms, concepts, icons, and images that seem perfectly clear to you and your colleagues may be unfamiliar or confusing to your users.

When a design's controls follow real-world conventions and correspond to desired outcomes (called natural mapping), it's easier for users to learn and remember how the interface works. This helps to build an experience that feels intuitive.

#### 3. User control and freedom

**Users often perform actions by mistake. They need a clearly marked "emergency exit" to leave the unwanted action without having to go through an extended process.**

When it's easy for people to back out of a process or undo an action, it fosters a sense of freedom and confidence. Exits allow users to remain in control of the system and avoid getting stuck and feeling frustrated.

#### 4. Consistency and standards

**Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform and industry conventions.**

Users should not Jakob's Law states that people spend most of their time using digital products other than yours. Users' experiences with those other products set their expectations. Failing to maintain consistency may increase the users' cognitive load by forcing them to learn something new.

#### 5. Error prevention

**Good error messages are important, but the best designs carefully prevent problems from occurring in the first place. Either eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action.**

There are two types of errors: slips and mistakes. Slips are unconscious errors caused by inattention. Mistakes are conscious errors based on a mismatch between the user's mental model and the design.

#### 6. Recognition rather than recall

**Minimise the user's memory load by making elements, actions, and options visible. The user should not have to remember information from one part of the interface to another. Information required to use the design (e.g. field labels or menu items) should be visible or easily retrievable when needed.**

Humans have limited short-term memories. Interfaces that promote recognition reduce the amount of cognitive effort required from users.

#### 7. Flexibility and efficiency of use

**Shortcuts — hidden from novice users — may speed up the interaction for the expert user so that the design can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.**

Flexible processes can be carried out in different ways, so that people can pick whichever method works for them.

#### 8. Aesthetic and minimalist design

**Interfaces should not contain information that is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility.**

This heuristic doesn't mean you have to use a flat design — it's about making sure you're keeping the content and visual design focused on the essentials. Ensure that the visual elements of the interface support the user's primary goals.

### 9. Help users recognize, diagnose, and recover from errors

**Error messages should be expressed in plain language (no error codes), precisely indicate the problem, and constructively suggest a solution.**

These error messages should also be presented with visual treatments that will help users notice and recognize them.

### 10. Help and documentation

**It's best if the system doesn't need any additional explanation. However, it may be necessary to provide documentation to help users understand how to complete their tasks.**

Help and documentation content should be easy to search and focused on the user's task. Keep it concise, and list concrete steps that need to be carried out.

## UK's Government Design Principles

We have also decided to use the UK's Government Design Principles. It must be recognized that the importance of the user continues to grow. The redesign of GOV.UK, despite being a government website, is a prime example of a user-led product that gained global recognition for its usability. [list of the gov.uk guidelines <https://www.gov.uk/guidance/government-design-principles>]

Ben Terrett, design director of the project, began with a set of user interface design principles that ranged from product strategy to visual design approaches. The very first principle was like a north star to the success of the product: "Always start with user needs. If you don't know what the user-needs are, you won't build the right thing. Do research, analyse data, talk to users. Don't make assumptions. Have empathy for users, and remember that what they ask for isn't always what they need." Heuristic principles for usability evaluations help identify where a UI design is falling short of delivering a user-friendly experience and even if these particular principles are related to design institutional application, we found them useful in a user-centred design process and also for commercial products.

### 1. Start with user-needs

Service design starts with identifying user-needs. If you don't know what the user-needs are, you won't build the right thing. Do research, analyze data, talk to users. Don't make assumptions. Have empathy for users, and remember that what they ask for isn't always what they need.

### 2. Do less

Government should only do what only the government can do. If we've found a way of doing something that works, we should make it reusable and shareable instead of reinventing the wheel every time. This means building platforms and registers others

can build upon, providing resources (like APIs) that others can use, and linking to the work of others. We should concentrate on the irreducible core.

### 3. Design with data

In most cases, we can learn from real world behavior by looking at how existing services are used. Let data drive decision-making, not hunches or guesswork. Keep doing that after taking your service live, prototyping and testing with users then iterating in response. Analytics should be built-in, always on and easy to read. They're an essential tool.

### 4. Do the hard work to make it simple

Making something look simple is easy. Making something simple to use is much harder - especially when the underlying systems are complex - but that's what we should be doing. Don't take "It's always been that way" for an answer. It's usually more and harder work to make things simple, but it's the right thing to do.

### 5. Iterate. Then iterate again

The best way to build good services is to start small and iterate wildly. Release minimum viable products early, test them with actual users, move from alpha to beta to live adding features, deleting things that don't work and making refinements based on feedback. Iteration reduces risk. It makes big failures unlikely and turns small failures into lessons. If a prototype isn't working, don't be afraid to scrap it and start again.

### 6. This is for everyone

Accessible design is good design. Everything we build should be as inclusive, legible and readable as possible. If we have to sacrifice elegance - so be it. We're building for needs, not audiences. We're designing for the whole country, not just the ones

who are used to using the web. The people who most need our services are often the people who find them hardest to use. Let's think about those people from the start.

### 7. Understand context

We're not designing for a screen, we're designing for people. We need to think hard about the context in which they're using our services. Are they in a library? Are they on a phone? Are they only really familiar with Facebook? Have they never used the web before?

### 8. Build digital services, not websites

A service is something that helps people to do something. Our job is to uncover user needs, and build the service that meets those needs. Of course much of that will be pages on the web, but we're not here to build websites. The digital world has to connect to the real world, so we have to think about all aspects of a service, and make sure they add up to something that meets user needs.

### 9. Be consistent, not uniform

We should use the same language and the same design patterns wherever possible. This helps people get familiar with our services, but when this isn't possible we should make sure our approach is consistent.

### 10. Make things open: it makes things better

We should share what we're doing whenever we can. With colleagues, with users, with the world. Share code, share designs, share ideas, share intentions, share failures. The more eyes there are on a service the better it gets - howlers are spotted, better alternatives are pointed out, the bar is raised.

## 2.1.2 First Inspection of the Systems

### 2.1.2.a First inspection of Vinted application

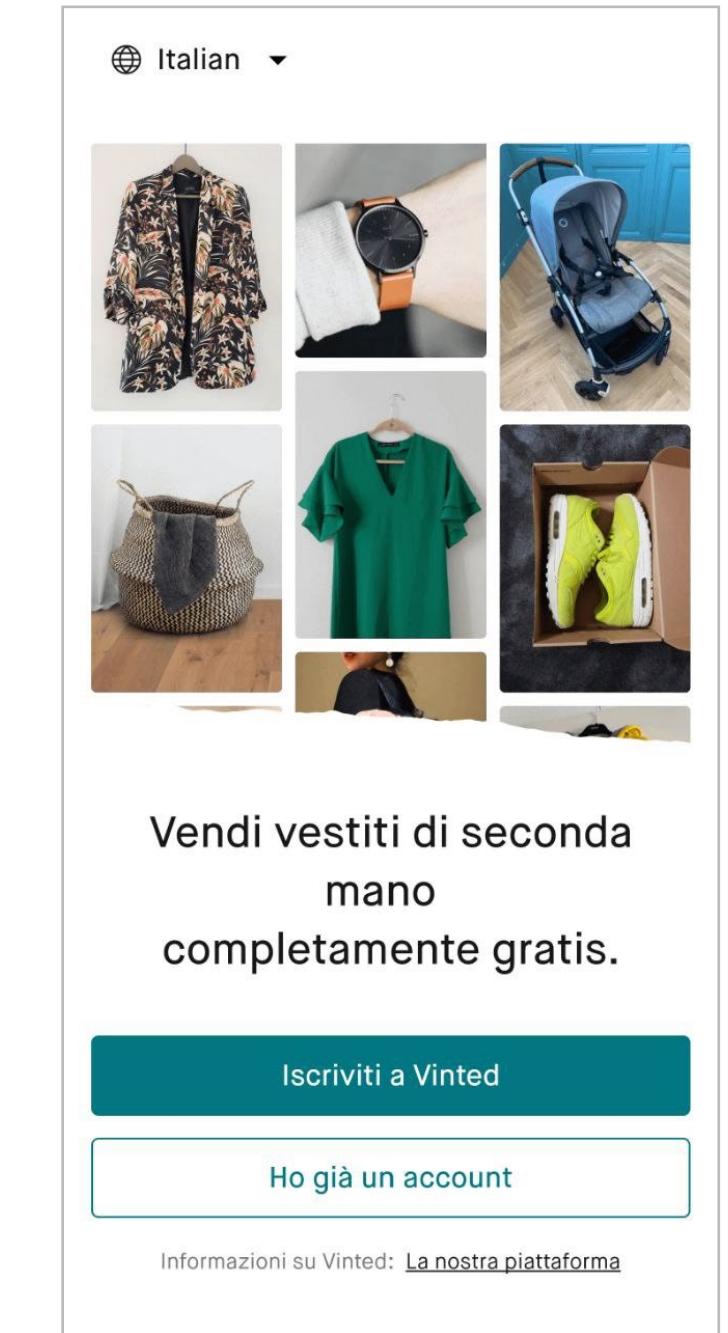
By a first inspection of the service, we can see that the first message that Vinted sent is about selling clothes without paying anything. It could be a little bit confusing if we consider the fact that the application actually regards other categories than clothes, as we can see after the login, in the search section. The target audience seems to be people who want to get rid of unused things.

### 2.1.2.b First inspection of CataWiki application

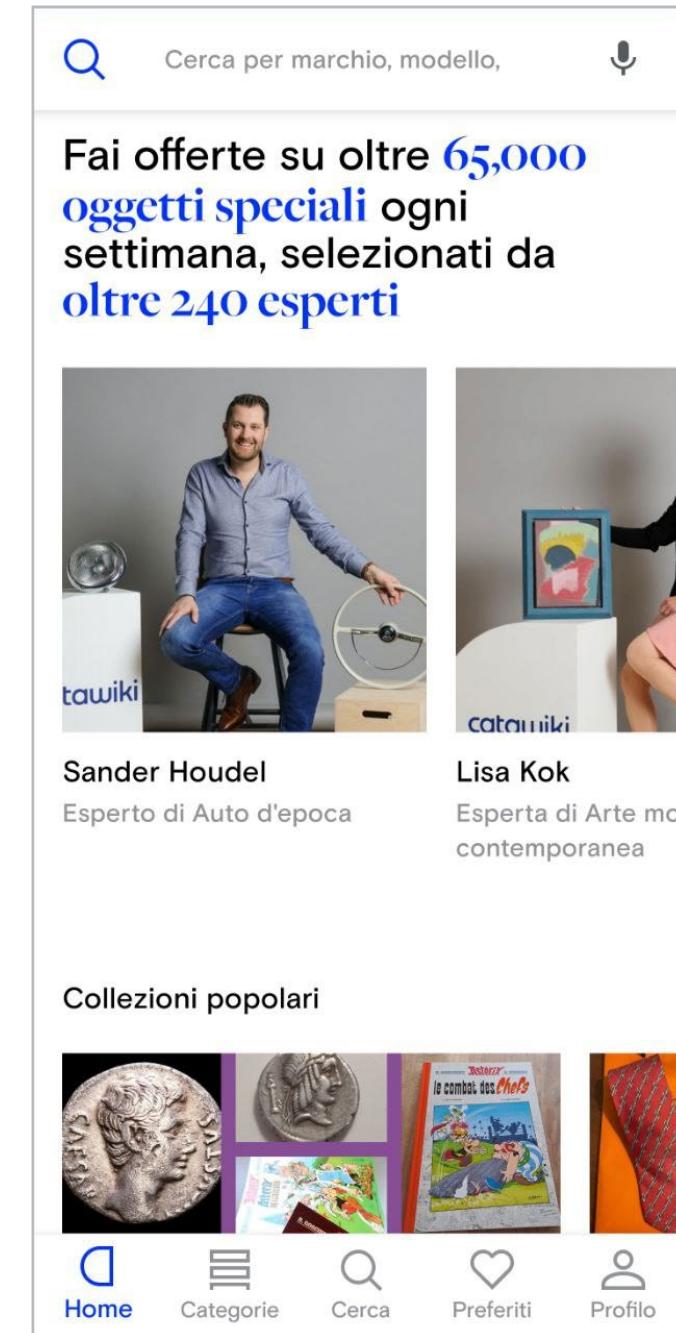
The homepage of CataWiki application makes immediately clear the purpose and functioning of the service, by describing its most important feature, that is being an auction website and offering expert's reviews. The target audience is large considering all the different categories that the application covers - from art products to military items. At a first look it seems intuitive and easy to use.

### 2.1.2.c First inspection of StockX application

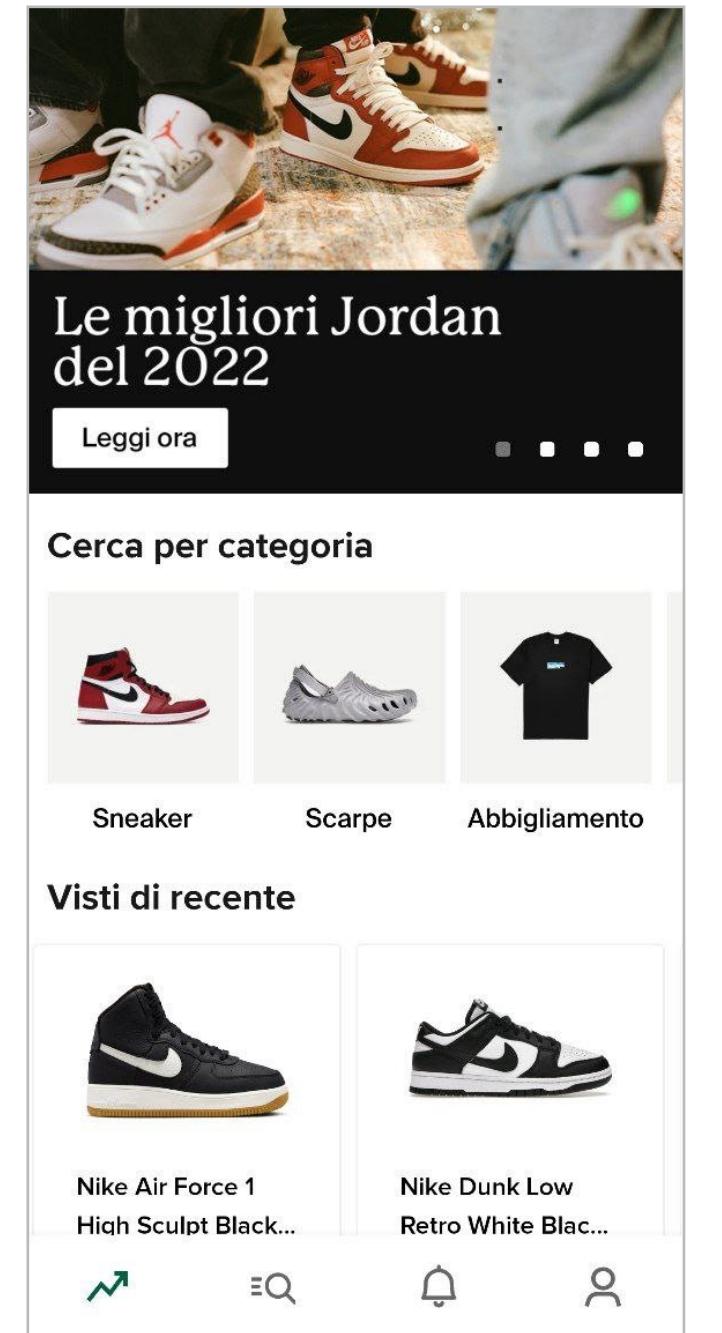
By looking at the welcoming banner of StockX, it is clear that the service focuses on clothes as primary items, not consoles. But scrolling down the homepage (even if the icon is not the usual "homepage" one) the user can see that the application covers other categories, like electronic devices and also collectible items (cards, dolls, etc). The application has a wide target audience, but products are not cheap because the users can find mainly expensive brands.



Vinted log-in/sign-up page, mobile app



CataWiki homepage, mobile app



StockX homepage, mobile app

### 2.1.3 Direct analysis: system vs. guidelines

In this section we are going to analyse some of the abovementioned services highlighting the degree to which they adhere or not to the guidelines chosen. In particular, we are going to analyse the whole functioning of the Vinted application, because it will serve as a basis for the PLAYED design; the Catawiki application, for the possibility of making offers to the seller; the StockX application, for the handling of shippings and ratings of the items. We have decided not to analyse Zalando and Zalando Privé applications, because we are not interested in their functioning, but in the division of the services: the former more general, the latter specific for a different audience.

#### 2.1.3.a Assessment of Vinted application

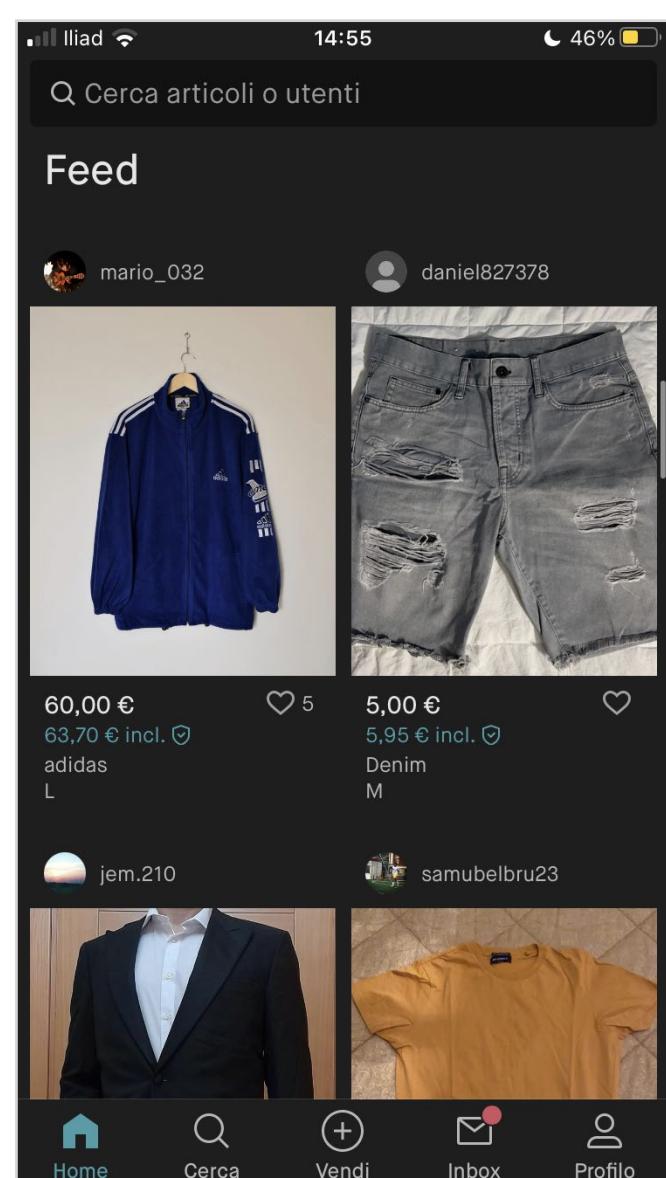
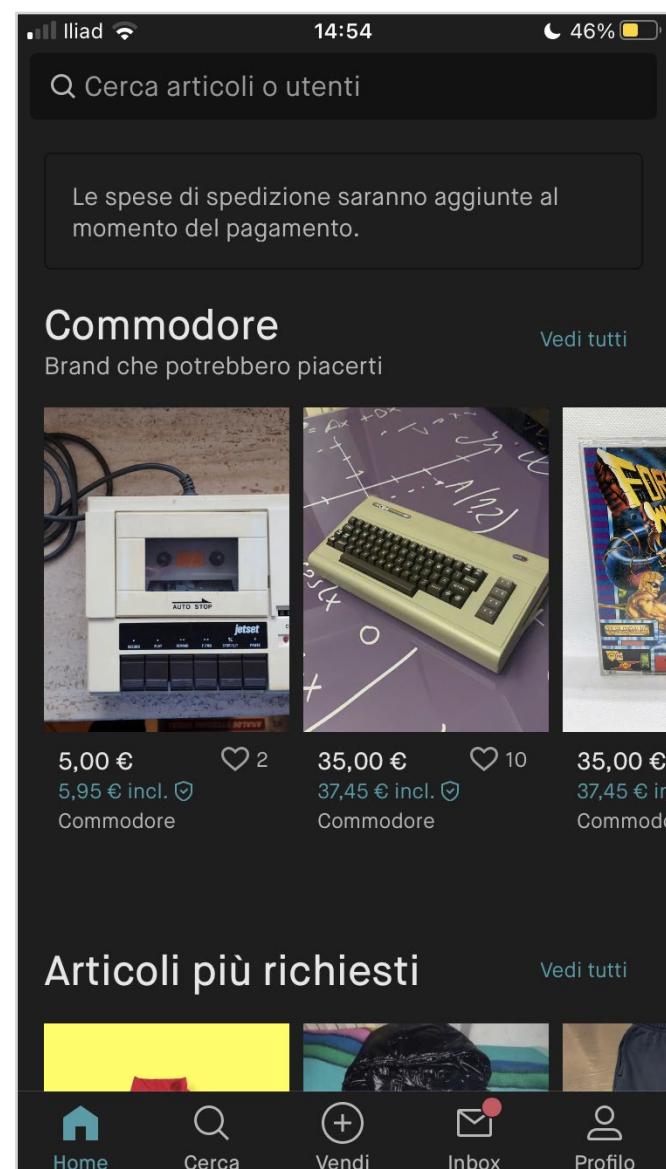
The Vinted mobile application has five main sections and they are all easily accessible by the bottom navigation bar and they are: Home, Search, Sell, Inbox and Profile.

##### Home

The home opens with an infinite scroll of items that are ready to be purchased by the user. We can find in this first screen how Nielsen's 1<sup>st</sup> principle is not applied with full effect. No messages are provided to the user that enters the app, we don't know if we already saved some item or if we still have something in the cart ready to be bought.

We don't see any clear sign of "Flexibility and efficiency of use" since no customisation for seller's or buyer's accounts is provided by the app, so whenever we enter it, we don't have an immediate clear shortcut to one of the two main part of the interaction, we start all from the same point, the infinite scroll Home with all the items ready to be sold, this is a violation of Nielsen's 7<sup>th</sup> principle. Since we are now analysing the system from a general user perspective, in our opinion, a non-expert user will find more useful a clear documentation section, reachable from the Home. Since this is not clearly displayed we found a violation of the 10<sup>th</sup> Nielsen's principle.

Concerning the UK's Government Design Principles, we found out that already the first one (1) is not applied with success, since, as said before, there is not a clear indication of which part of the interaction the user is when entering the app. Am I selling or buying? At a first glance, it looks like we are just here to buy. We also outlined an infringement of the 10<sup>th</sup> principle since we don't have any specification about the design choices made while designing the system or any access to the code but we can see how this principle is more focused on institutional (and so "public") applications, so we will not consider this as a violation.



Vinted Home, mobile app

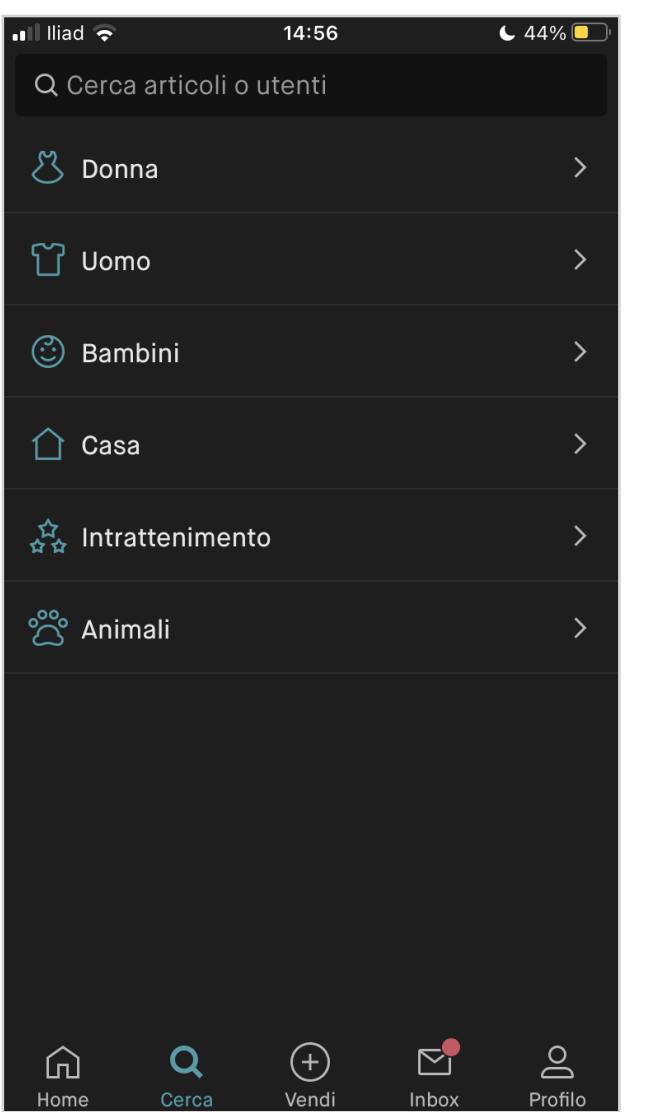
### Search

On this screen, the user can find items ready to be sold by other users. It is clear here that Vinted started with a specific focus on clothing and then, due to its success and probably users' requests, they added other categories. We noticed that since "Women", "Men" and "Children" are the first three categories, there is no relation with the other categories listed: "Home", "Entertainment", and "Animals". Are we going to find clothing for pets in the "Animals" section? Also, the iconographical system seems to not help clarify this aspect. Thus, we see a violation of the 2<sup>nd</sup> principle of Nielsen's usability heuristics, since there is no match between the real-world category and the ones shown here, as well as a loss in consistency may be outlined. We will consider the number 4 as violated as well.

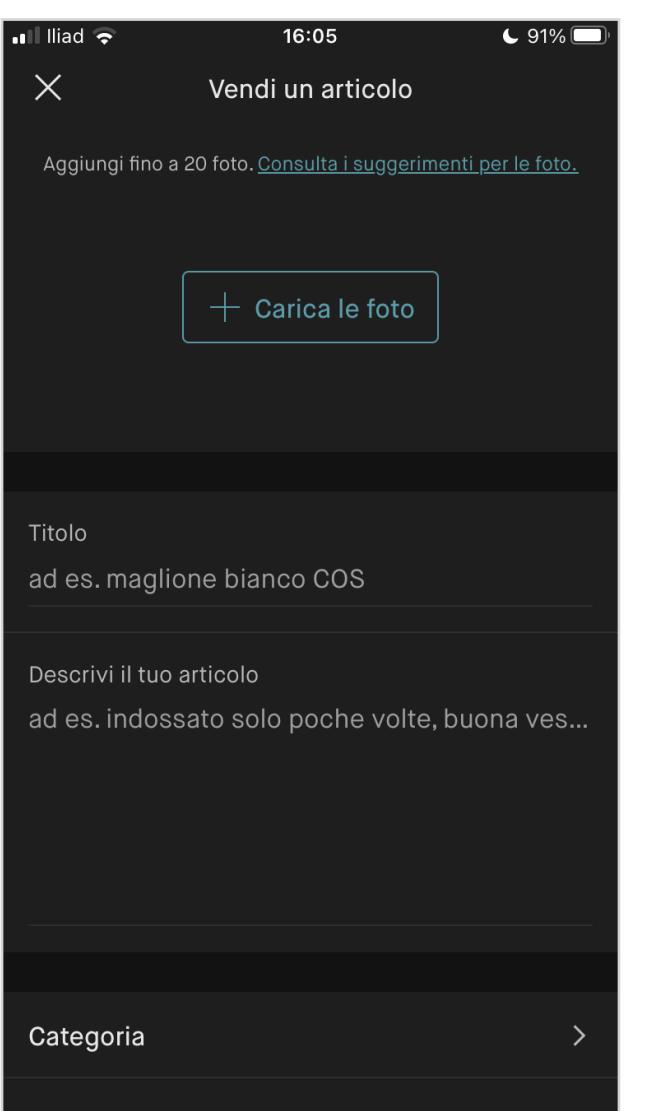
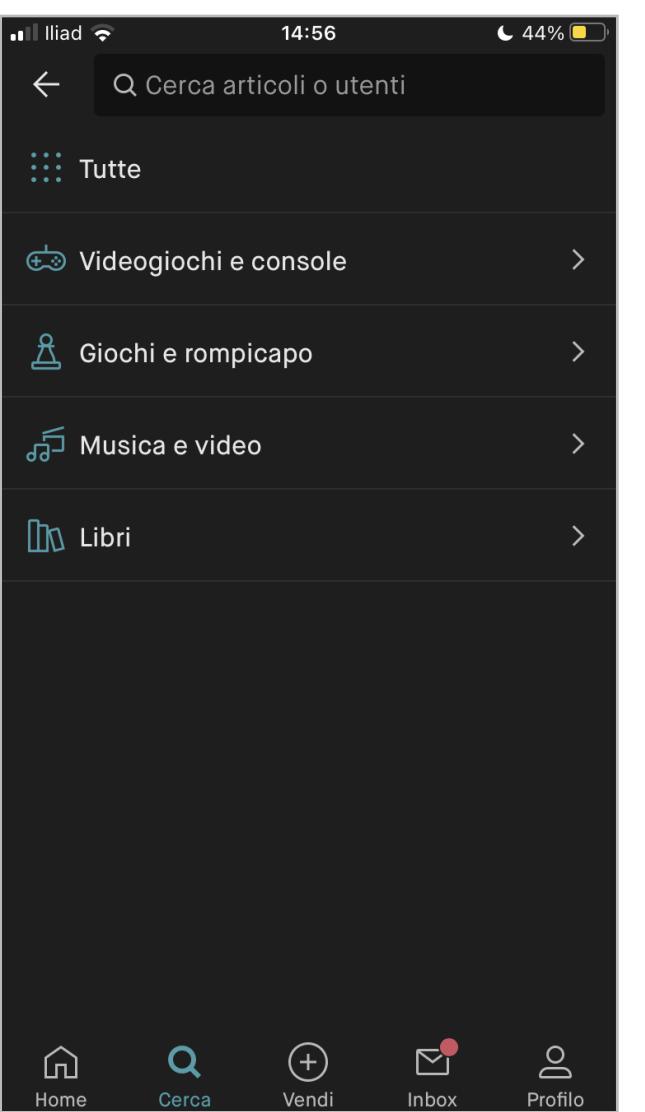
About the UK's guidelines, we recognised the 6<sup>th</sup> principle as violated. As already said, in our opinion, the categories as they are arranged and presented, don't provide a clear, inclusive and readable solution. It is true that by trying a user can understand the concept behind this specific organisation of items but it is not so clear concerning general public needs.

### Sell

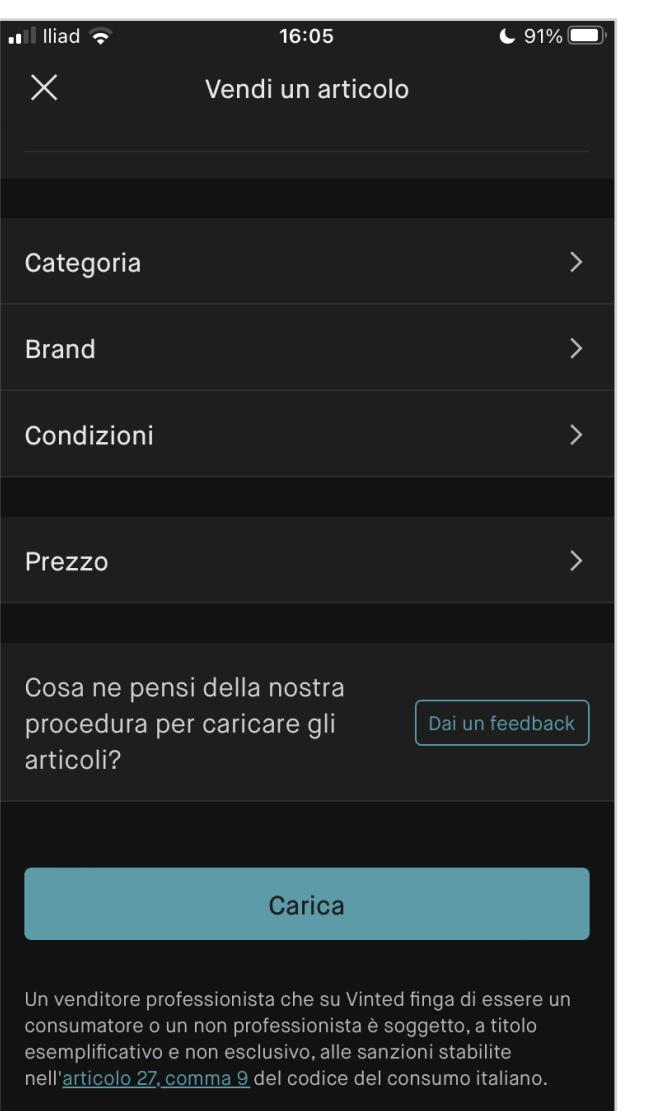
About the screen, we want to highlight as a good design feature the possibility to have a look at advice for a good product photo. This is made possible by consulting the link in the top message. We consider this screen a very good example of user-centred design since there is both a section for providing feedback about the experience and a reference to the legal documentation. In general, the upload procedure works smoothly and it is easy to correct eventual errors.



Vinted Search, mobile app



Vinted Sell, mobile app



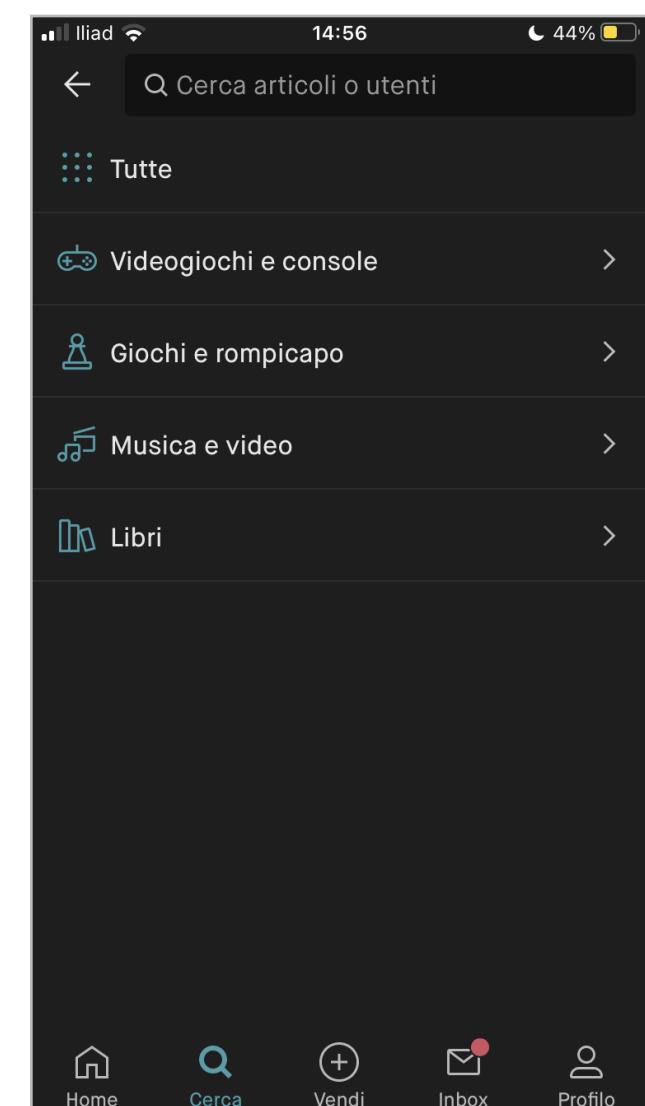
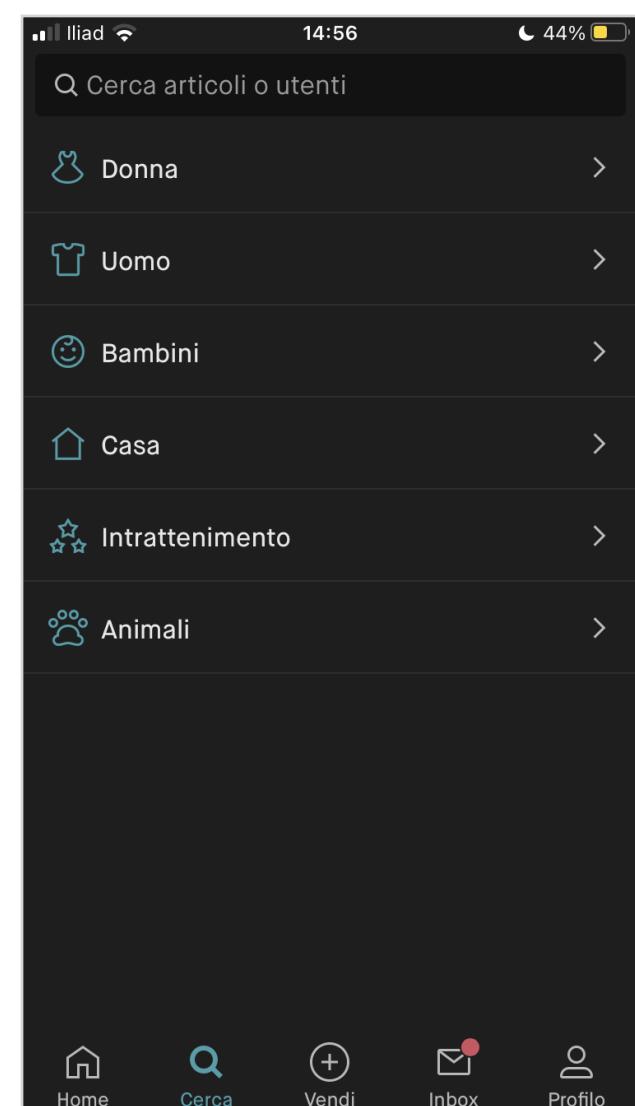
### Inbox

In the inbox section, we find the basic actions for reading and writing messages from and to other users. Through the tab menu on top, we can also navigate from messages to the notifications sub-section. The usage and the design of this screen are pretty similar to the messaging app we all are already familiar with. No particular violations were detected in this section. The clear design and the limited possibility of usage avoid the possibility to commit errors to the user. As highlighted in our preliminary "User research" we imagine the possibility of a dialogue between buyers and sellers as a primary feature of our design.

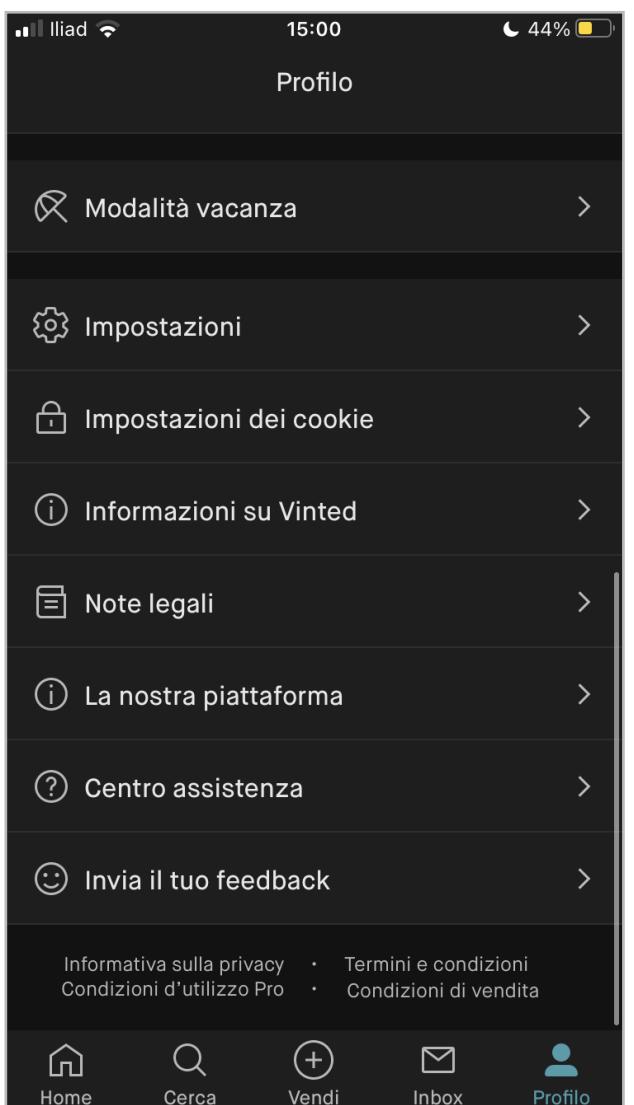
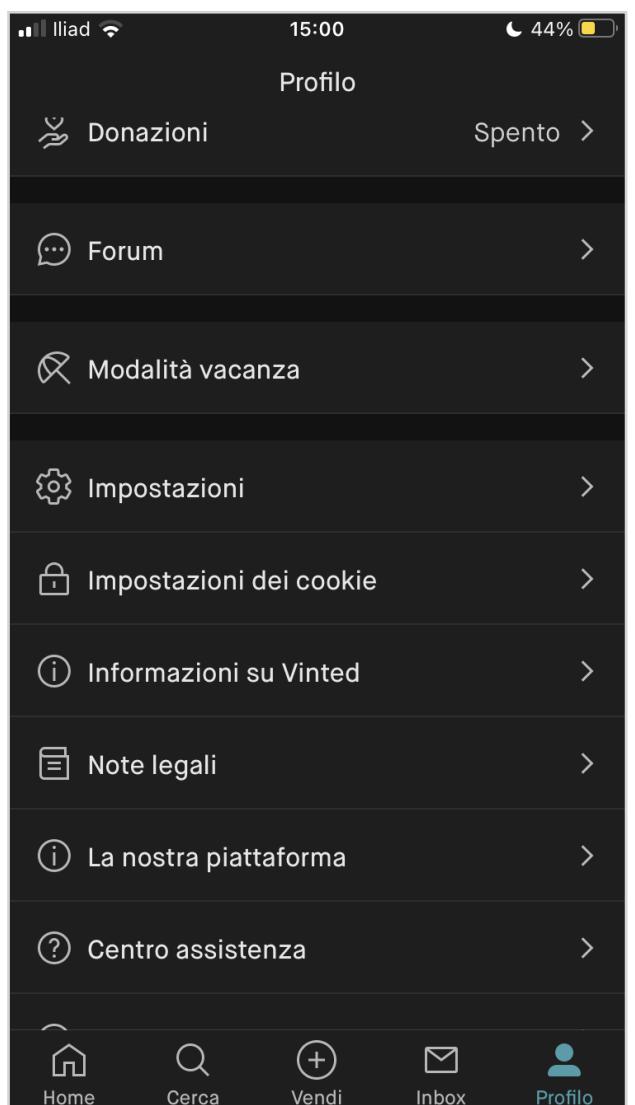
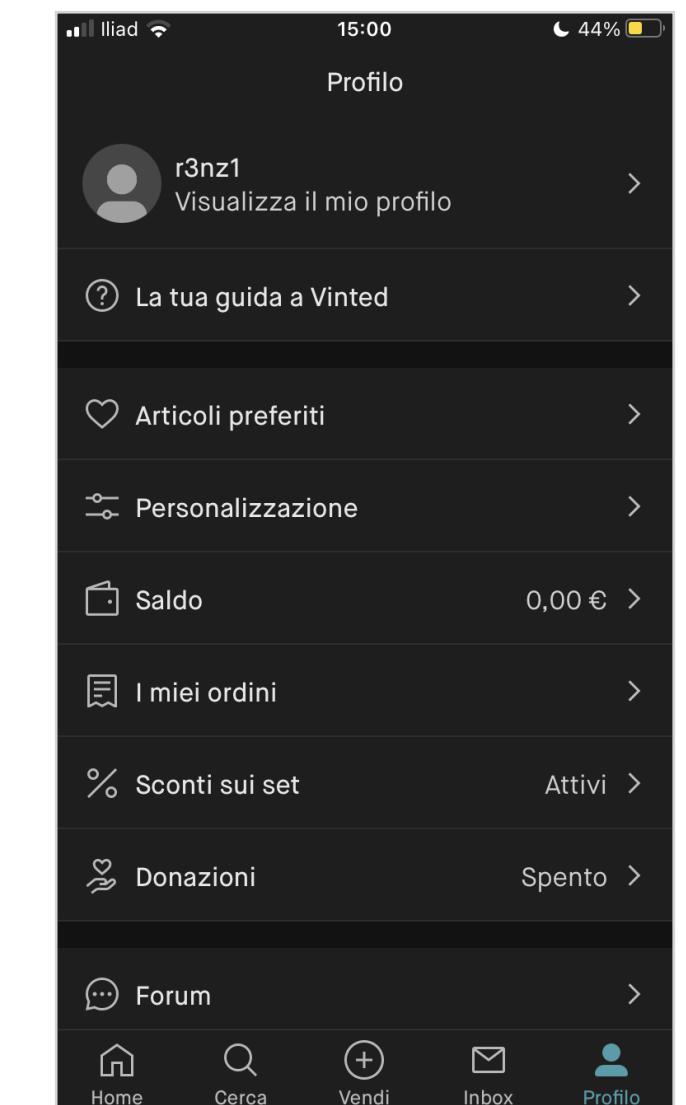
### Profile

At a first glance, the "Profile" section looks overcrowded. First thing, as also analysed for the "Home" section, we don't find a clear distinction between tools and settings dedicated to the buyer or the seller. In our opinion, this section violates the 7<sup>th</sup> Nielsen principle since we think a more clear division of tasks related to one of these activities will benefit the interaction with the application. We think this could be managed more smoothly.

All of these considerations lead to a violation of the first UK government design principles since here the user need is not so well interpreted. As already said, probably too many different features are inserted in this section without a clear distinction of macro areas, like "for the buyer", "for the seller", "help" and so on. We see as a good feature, compliant with the 10<sup>th</sup> Nielsen principle, the possibility to access a FAQ section, a forum, legal notes and general documentation about the application as well as the possibility to send feedback. Probably these features could be arranged in a more meaningful way.



Vinted Profile, mobile app

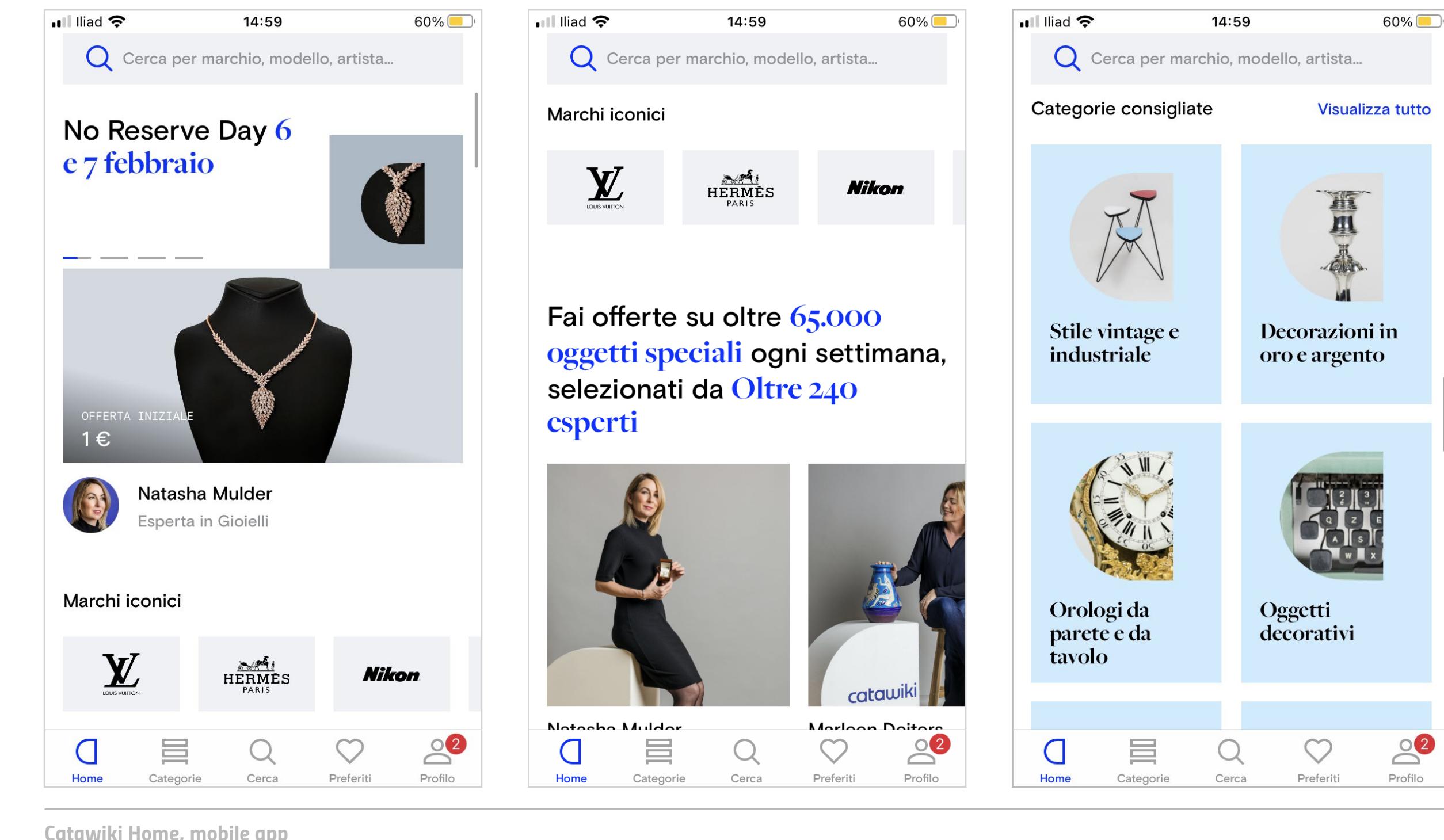


Vinted Profile, mobile app

### 2.1.3.b Assessment of Catawiki application

#### Home

Catawiki presents itself as a reliable and elegant application. In the first section of the Home, the top auctions currently in progress are highlighted in an automatic slider. After that, a slider presents the most iconic brands selected from the items available in the auctions. A CTA, followed by pictures of some of the experts that work in collaboration with Catawiki, give us the idea behind the main goal of the app, to make offers on the items ready to be evaluated. The section continues with some sliders regarding popular collections or recommended items based on previous searches and so on. We found this home well designed but we may find a violation of the 10<sup>th</sup> Nielsen principle since there is no clear access to documentation or to some "how to do" section. This can be pointless for an expert user but we think this could help new or non-expert users.



### Categories

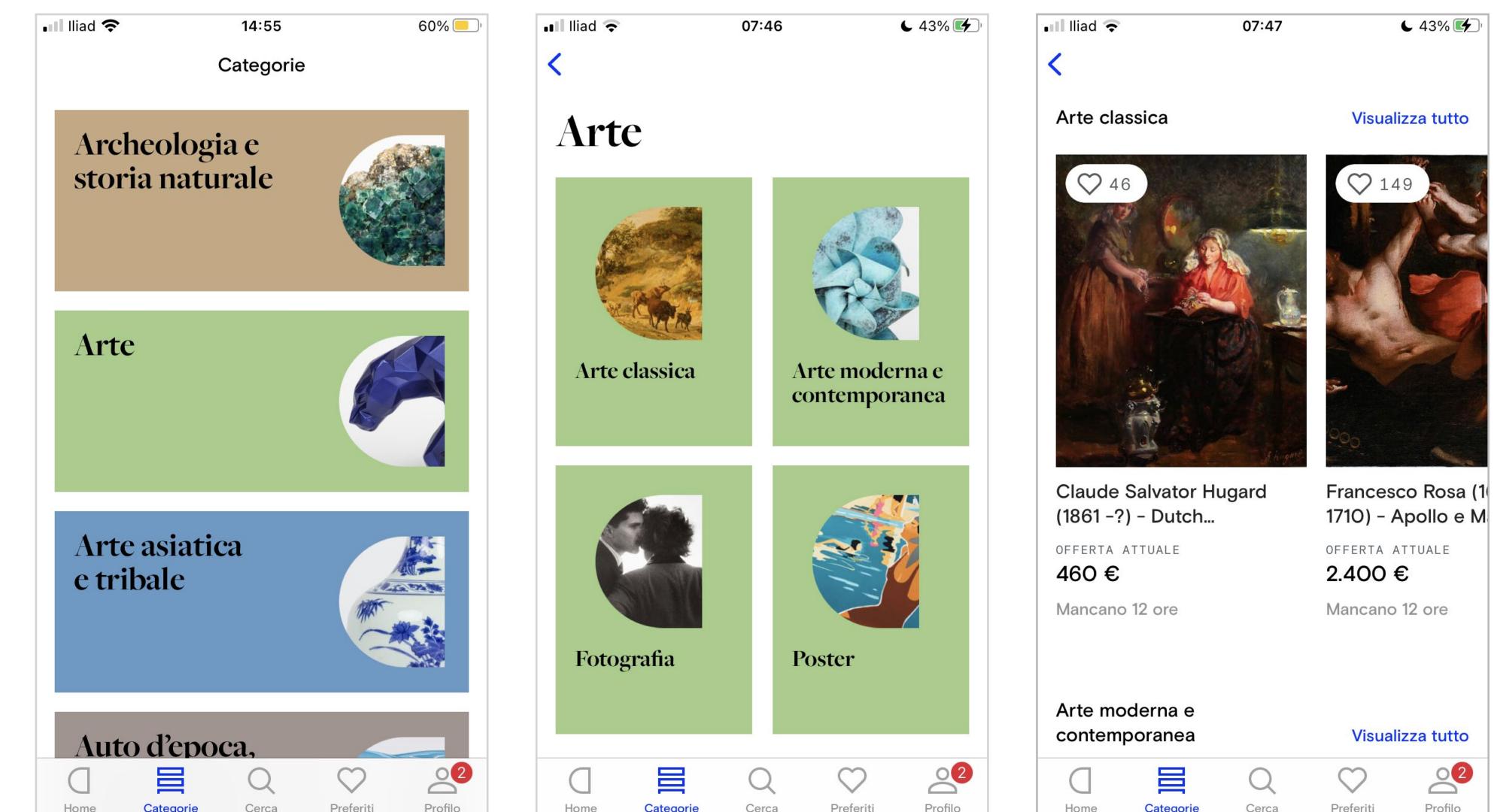
In this section, it is possible to select a category of items. They are listed by title and distinguished by colour and a little image represents a particular object of that category. By tapping on a category, a group of sub-categories is shown, scrolling down we can see that the items of the main category are already listed. We can choose to go down another level by tapping on a sub-category or if we already are satisfied, we can start looking at items. In general, the navigation works smoothly and is always possible to come back to the previous status. The only violation of Nielsen's principles is encountered when selecting a first-level category and then scrolling down to the items listed, we think that a label of the category (the title) we are in should be displayed during the scrolling down but it is not. Thus the first (1) principle is violated.

While navigating the "Categories" there is no possibility of asking for help or reading some documentation regarding the logic behind the organisation of the items. We found that this feature could be useful to a non-expert user. We consider the 10<sup>th</sup> Nielsen's principle as violated.

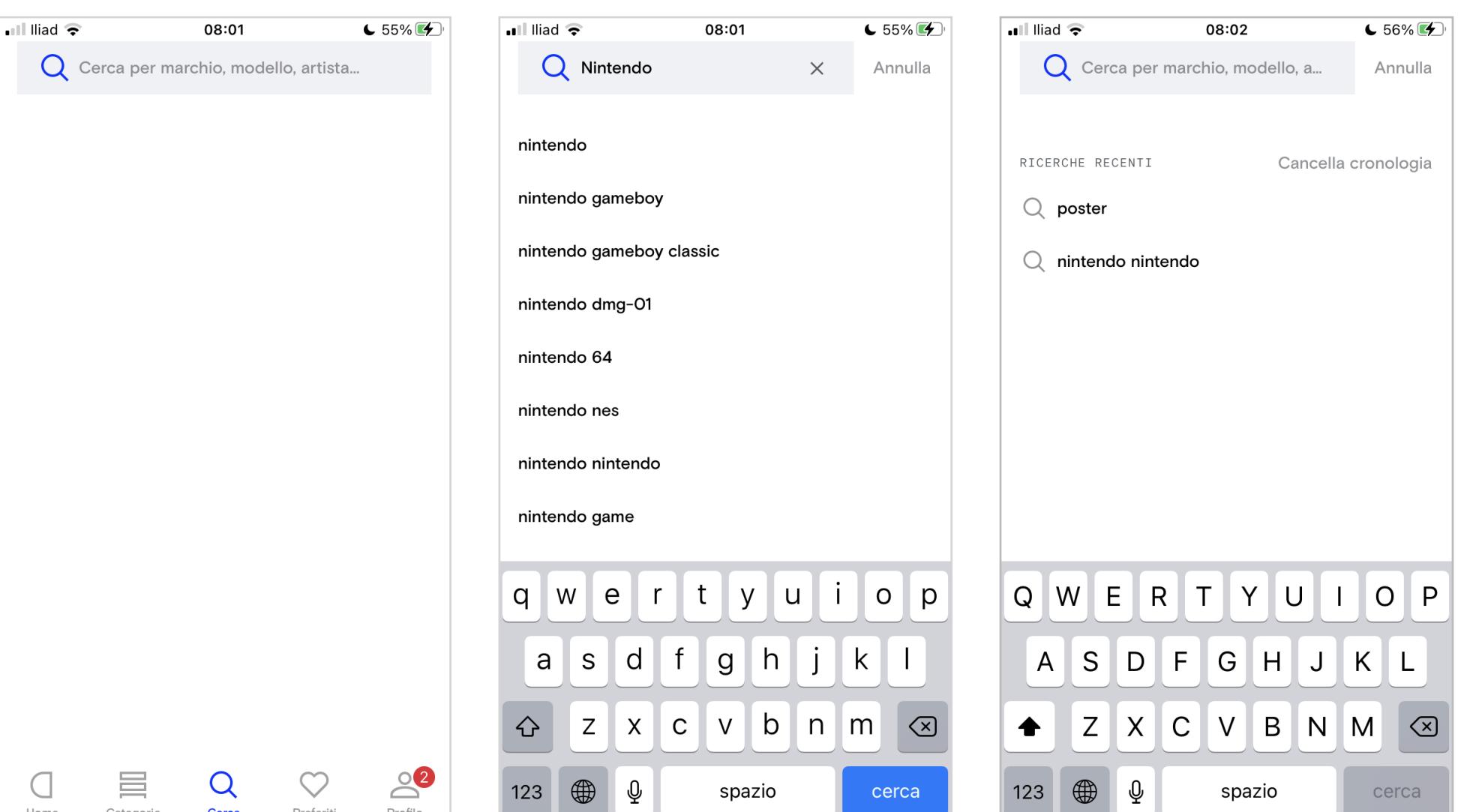
For the same reason, when comparing this section with the UK's principles, we found out that the 6<sup>th</sup> principle is violated. Seems like only users that already know where to find a specific item could reach the goal without committing errors or going back to the first-level categories.

### Search

The "Search" section offers the possibility of searching for keywords or a brand by typing in the text field. No guidelines regarding how or what to search are provided and we found that some users could feel a bit lost in this section because of the almost empty screen, as already said, just the text field is displayed before start typing for the first time. Even if the research we will perform will be then listed under the just cited text field, we think that a violation of Nielsen's 1<sup>st</sup> and 10th principles occurs since a user could think that the section is not currently working at first use.



Catawiki Home, mobile app



Catawiki Home, mobile app

## 2. Assessment of existing resources

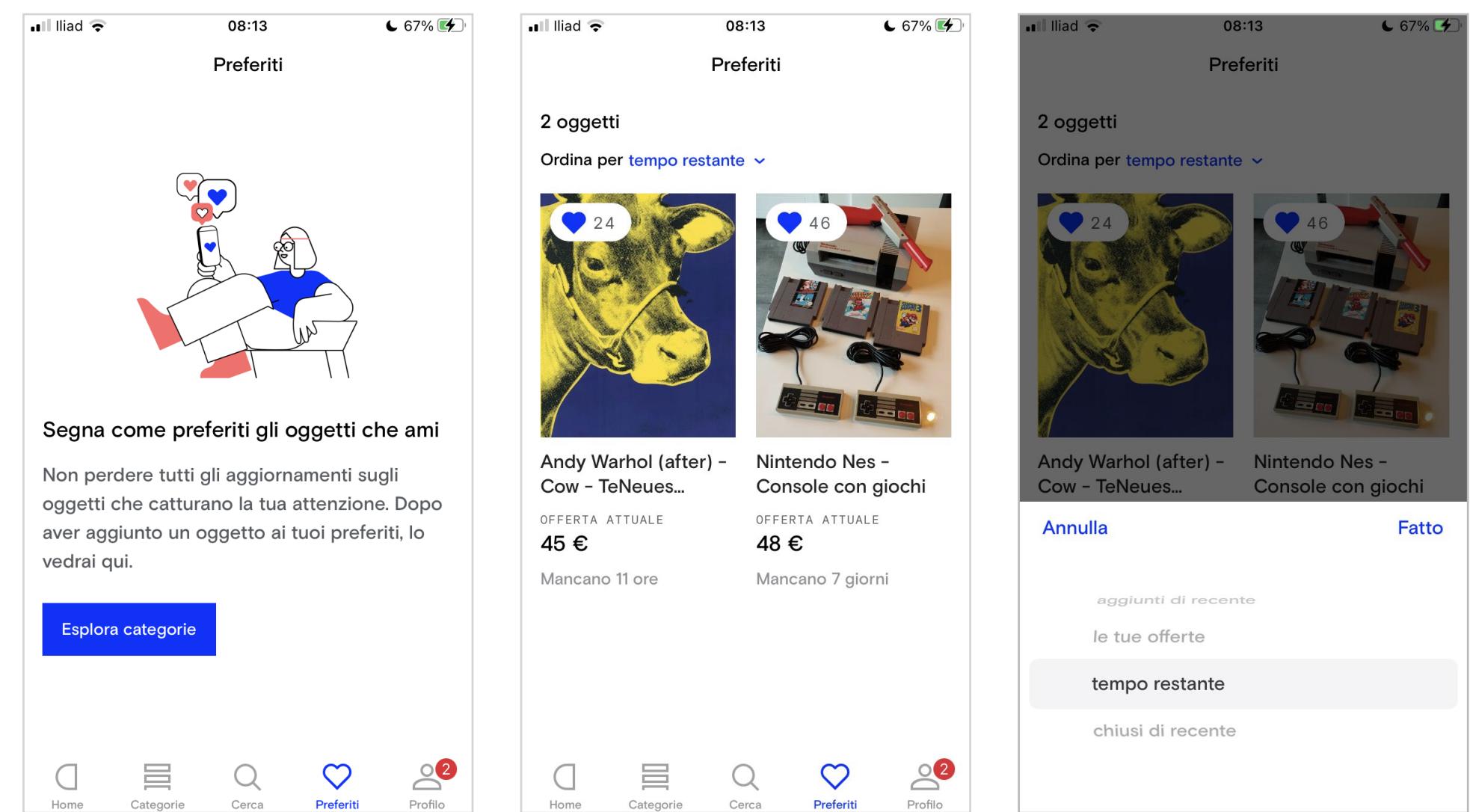
UUX 2022-23

### Favourites

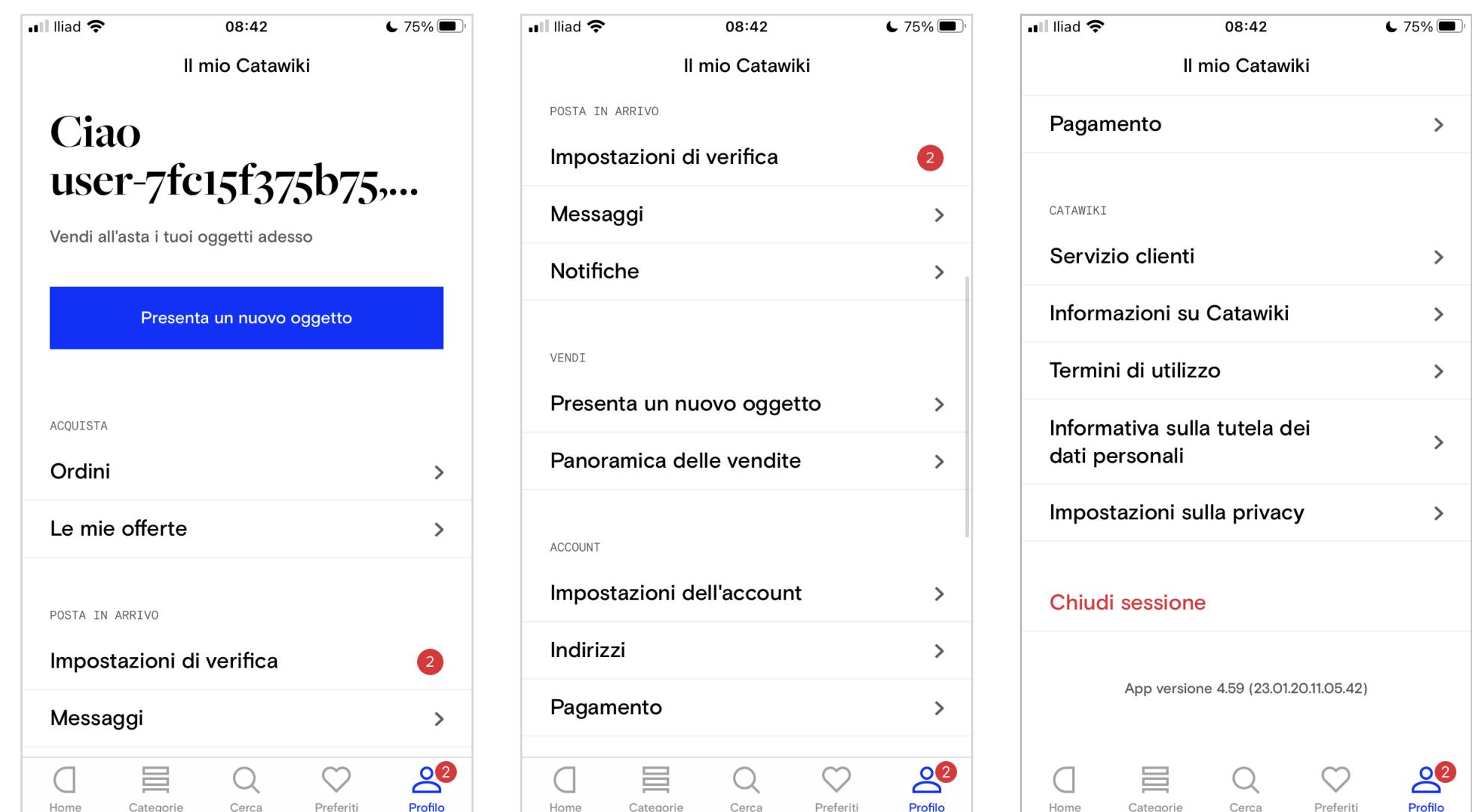
If no favourites have already been chosen, then the screen will show a useful message that informs you about the fact that items you liked during the interaction will be shown here. Also, a button is displayed and it will land you in the "Categories" if clicked. When you will have some objects marked as favourites, they will be listed here and there will be the possibility to arrange the list by various criteria such as "remaining time" (the auctions have a limited time), "recently added", "your offers" and "recently closed". We found this logic particularly clear and useful and we did find any particular violation of the principles we are taking into consideration.

### Profile

The "Profile" screen is well organised. The settings are grouped and labelled and we found this a good feature. Also in this section, Catawiki confirms its elegance and reliability. In our opinion, the user is well-guided and seems difficult to commit some kind of error or to feel lost. A red badge with a white number will be shown next to the setting that needs some action to be performed by the user, this is the case for messages, notifications, account verification and others. In our opinion, no violations of the design principles we choose occur in this section.



Catawiki Home, mobile app

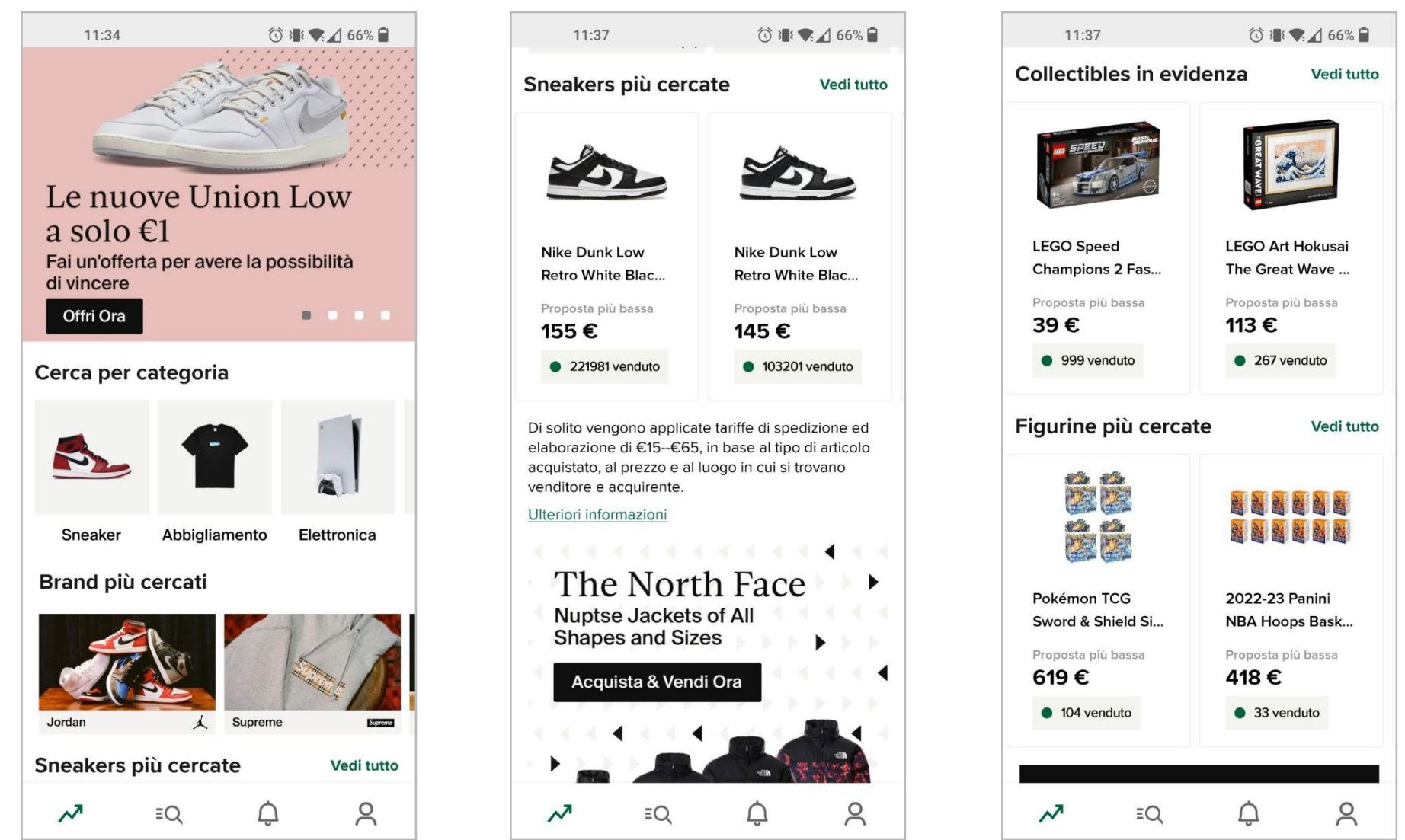


Catawiki Home, mobile app

### 2.1.3.c Assessment of StockX application

#### Home/Trends

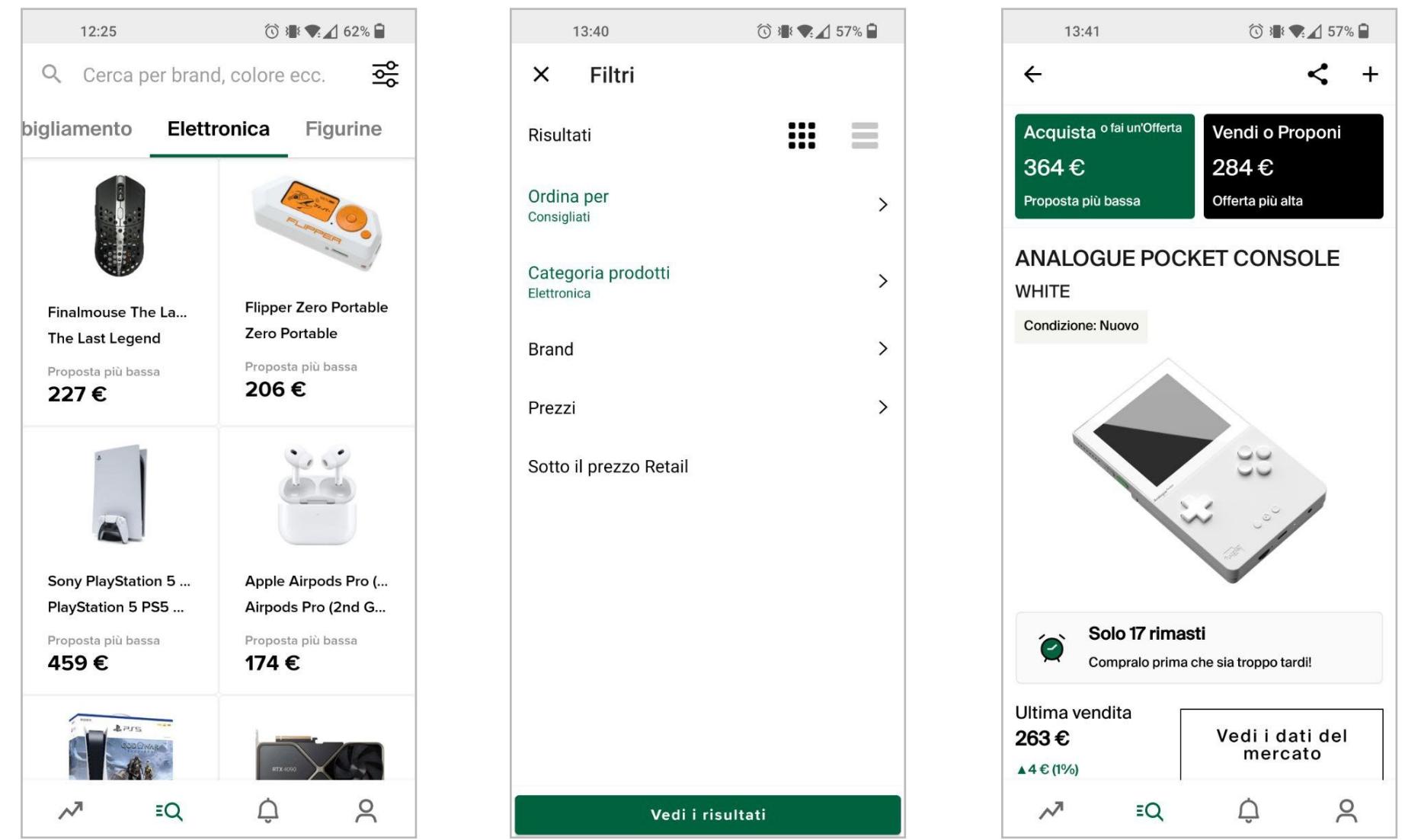
The StockX application's homepage presents an intuitive but not explicit labelled four icons-based navigation at the bottom of the screen - home/trends, search, notifications and profile. The categories are presented in a row at the centre of the page, but confusingly organised. By scrolling down, the users have suggestions about the most searched items and most popular ones, with a tag regarding how many times they have been sold. The "guide" is only accessible in the "Profile" section, without any shortcut or previous explanation. We found that the disorganisation of the home and the impossibility to have a clear knowledge about how to use the application might be problematic for non-expert users, so violating the Nielson's 1<sup>st</sup>, 4<sup>th</sup> and 6<sup>th</sup> and UK's Guidelines 7<sup>th</sup> principles.



StockX Home, mobile app

#### Search

The Search section opens with a search bar at the top of the screen next to the filter's tool. Following there is a tab navigation with all the different categories - Sneakers, Clothes, Electronic, Cards, Collectibles, Accessories -. The items are presented with a simple photo of the object, the name, and the lower offer's price. The filters allow the user to re-select the category and choose the brand or the order of appearance. When you click on an item, you can choose either to buy or sell/propose the selected product. Under the photo, an alert informs the user if the product is about to run out and there is a section with some market data and insights about the price. We found the item-section matching Nielson's 8<sup>th</sup>, due to the minimalist design, and the UK's Guidelines 3<sup>rd</sup>, because the application provides some data that users can refer to.



StockX Search, mobile app

### Notification

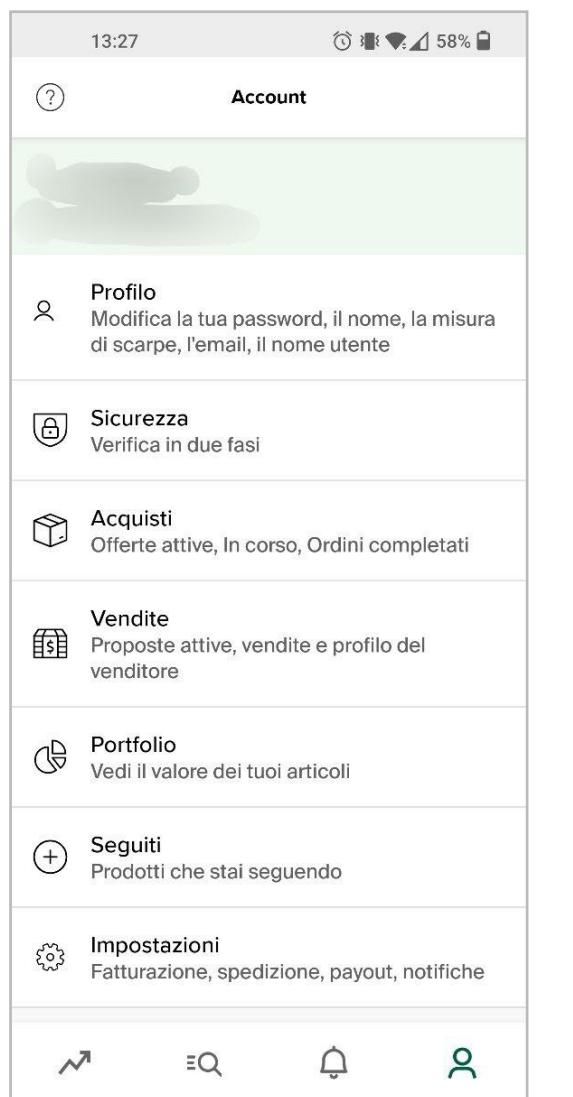
The Notification section is dedicated for the messages directed to the users. At the first installation of the application there is a message that explains that in this section you can visualise your orders' status and other things. Even though the design is minimalist, it is not clear how to open to see the whole message or how to delete the message itself. So we found a violation of Nielsen's 3<sup>rd</sup> and also 6<sup>th</sup>, because the Notification page does not seem adequate to also check the order's status.

### Account

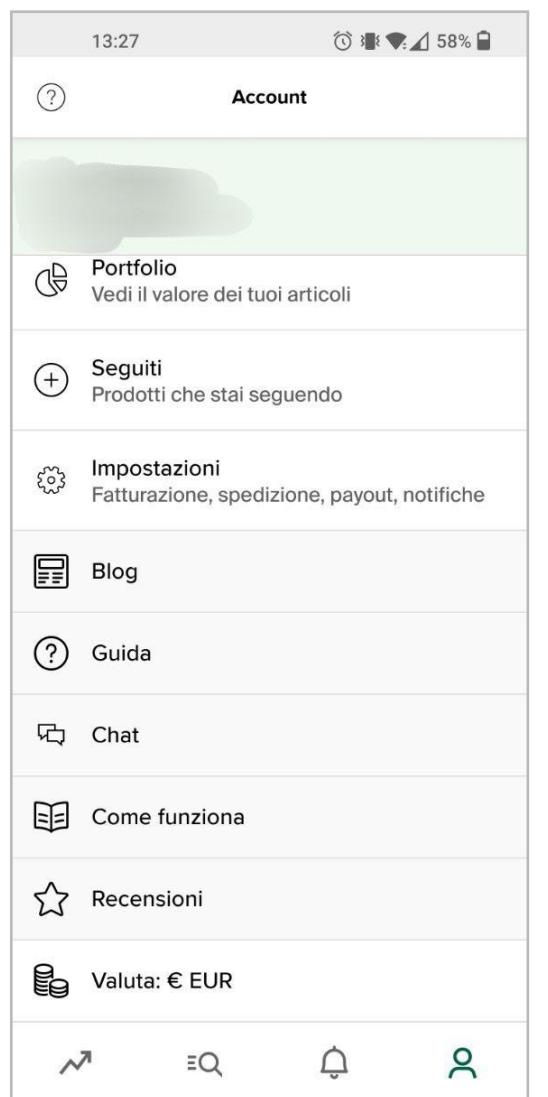
The Profile section (with a logged user) is divided in different subsections with a minimalist and clear organisation. The idea of creating an insights' page to monitor the owned products is innovative and useful. There is also the possibility to access a blog, a guide, a support-chat and a how-to mini-sections, which allows the application to match Nielsen's 10<sup>th</sup>.



StockX Notification, mobile app



StockX Profile, mobile app



StockX Portfolio, mobile app

### 2.1.4 Reverse analysis: guidelines vs. system

In the previous paragraph we analysed each section of the applications in terms of which guidelines were and which guidelines were not respected. In this paragraph, we do the opposite, analysing each guideline in terms of which sections violate them.

#### 2.1.4.a Assessment of Vinted application

Most of the violation of Vinted have been already analysed in the direct analysis' section, but we also found a:

- Violation of Build digital services, not websites (UK's Guidelines 8<sup>th</sup>) in the "Profile" section: as already mentioned in the direct analysis there is no clear separation of the functionalities for buyers and sellers (see also Nielsen's 2<sup>nd</sup>).

#### 2.1.4.b Assessment of Catawiki application

Catawiki matches almost all of the proposed guidelines. To the violations already discussed we can add one:

- Violation of Aesthetic and Minimalist design (Nielsen's 8<sup>th</sup>) in the application's home page: the search bar at the top of the screen and the search button at the bottom are a useless repetition.

#### 2.1.4.c Assessment of StockX application

For what concern the StockX application we want to highlight a:

- Violation of Match between system and real world (Nielsen's 2<sup>nd</sup>) in the design of the application: there is no clear distinction between buyers and sellers, users have features and tools of both.
- Violation of Consistency and standards (Nielsen's 4<sup>th</sup>) in the Item-page: because it is not intuitive for a non-expert user the fact that you have to click on the plus sign in order to follow the product. The standard is usually a heart icon.

## 2.2 User testing

### 2.2.1 Definition of the testing protocol

Usability testing is a fundamental step in the design of a system. The best performances are given by the Deluxe Usability Testing, which is at the same time the most expensive: it requires a high number of participants, the collaboration of professional psychologists, and the use of equipped laboratories.

We have decided thus to use Discount Usability Testing for its many advantages in terms of costs, since it requires few participants and no specialist for the analysis of the results. In addition, it is conducted in an informal way, with a member of the team chatting with the participant while he/she is using the system.

### 2.2.2 Testing process

We have performed the Usability Testing on two services that we found to be the most important for our purpose: Vinted and Catawiki. The test analyses some tasks in the overall architecture of the services:

For both the applications the following actions are evaluated:

1. **Sell an item.**
2. **Search for an item to buy.**
3. **Buyer-seller interaction.**
4. **Purchase a product.**

We perform a Thinking Aloud method, asking the participant to talk about what they are doing and thinking while performing the actions.

We evaluate the following metrics: **success in the completion of the task**, whether with or without help from the assistant; **time for evaluating the best approach between the two services**; **efficiency in the execution of the task and the possible mistakes of the user**; **satisfaction of the user after the completion of a task**. We evaluate the performance by applying also the **System Usability Scale**, with a 5 Levels Likert Scale, which you can see on the right. The System Usability Scale (SUS) is a simple, ten-item scale giving a global view of subjective assessments of usability.

### 2.2.3 Analysis of subjective and objective data - results

We have performed Usability Testing on 4 users out of our sample.

The participants are:

1. **Francesco**, 34 years old engineer, who is passionate about retrogaming.
2. **Antonio**, 30 years old doctor, who has some experience with online purchasing.
3. **Michela**, 31 years old public servant, who enjoys playing video games.
4. **Mario**, 32 years old employee, who has some experience with online sales.

The tests have been performed in a private living room. First of all, the assistant describes the services upon which the test is performed and the tasks that the participants are required to perform. She also encourages the participants to ask questions, if they have any, but they will not receive any answer. They perform the actions on the mobile applications of the services.

To obtain the SUS score we have followed the official guidelines, thus we have multiplied the total score, obtained by weighting the answers depending on the type of question, by 2.5.

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.					
2. I found the system unnecessarily complex.					
3. I thought the system was easy to use.					
4. I think that I would need the support of a technical person to be able to use this system.					
5. I found the various functions in this system were well integrated.					
6. I thought there was too much inconsistency in this system.					
7. I would imagine that most people would learn to use this system very quickly.					
8. I found the system very cumbersome to use.					
9. I felt very confident using the system.					
10. I needed to learn a lot of things before I could get going with this system.					

[https://www.researchgate.net/publication/228593520\\_SUS\\_A\\_quick\\_and\\_dirty\\_usability\\_scale](https://www.researchgate.net/publication/228593520_SUS_A_quick_and_dirty_usability_scale) paper ufficiale delle guidelines su SUS

## Test Results for Francesco

Task	Success	Time	Efficiency	Satisfaction
Vinted 1.	Success without help	5 minutes	high	Not so high, some problems related to the customisation of the offer
Vinted 2.	Success without help	30 seconds	low	low, few results and restricted filtering for this item
Vinted 3.	Success without help	2 minutes	high	low, there is not guarantee about the seller and the item
Vinted 4.	Success without help	5 minutes	high	High
Catawiki 1.	Success without help	20 minutes	high	medium, the app doesn't give any information about the insurances for the shipping → the seller must inform on his/her own
Catawiki 2.	Success without help	30 seconds	high	high
Catawiki 3.	Failure	10 minutes	low	low
Catawiki 4.	Success without help	days	high	high

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.				x	
2. I found the system unnecessarily complex.	x				
3. I thought the system was easy to use.				x	
4. I think that I would need the support of a technical person to be able to use this system.	x				
5. I found the various functions in this system were well integrated.				x	
6. I thought there was too much inconsistency in this system.				x	
7. I would imagine that most people would learn to use this system very quickly.			x		
8. I found the system very cumbersome to use.	x				
9. I felt very confident using the system.				x	
10. I needed to learn a lot of things before I could get going with this system	x				

### SUS for Vinted

Total score

$$3 + 4 + 4 + 4 + 3 + 0 + 3 + 4 + 4 + 4 = 33$$

SUS score

82.5

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.		x			
2. I found the system unnecessarily complex.			x		
3. I thought the system was easy to use.			x		
4. I think that I would need the support of a technical person to be able to use this system.	x				
5. I found the various functions in this system were well integrated.			x		
6. I thought there was too much inconsistency in this system.	x				
7. I would imagine that most people would learn to use this system very quickly.			x		
8. I found the system very cumbersome to use.			x		
9. I felt very confident using the system.	x				
10. I needed to learn a lot of things before I could get going with this system			x		

### SUS for Catawiki

Total score

$$1 + 0 + 4 + 4 + 2 + 3 + 2 + 1 + 1 + 1 = 19$$

SUS score

47.5

## Test Results for Antonio

Task	Success	Time	Efficiency	Satisfaction
Vinted 1.	Success with help	10 minutes	low	high
Vinted 2.	Success without help	2 minutes	low	low, not a lot of filtering possibilities
Vinted 3.	Success without help	5 minutes	high	high, messaging the seller is a useful resource
Vinted 4.	Success without help	10 minutes	high	High
Catawiki 1.	Failure	the process was too long	low	low
Catawiki 2.	Success without help	5 minutes	high	high
Catawiki 3.	Failure	10 minutes	low	low, no possibility to contact the seller
Catawiki 4.	Success with help	days	high	high

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.				x	
2. I found the system unnecessarily complex.			x		
3. I thought the system was easy to use.			x		
4. I think that I would need the support of a technical person to be able to use this system.		x			
5. I found the various functions in this system were well integrated.				x	
6. I thought there was too much inconsistency in this system.		x			
7. I would imagine that most people would learn to use this system very quickly.				x	
8. I found the system very cumbersome to use.		x			
9. I felt very confident using the system.				x	
10. I needed to learn a lot of things before I could get going with this system	x				

### SUS for Vinted

Total score

$$3 + 2 + 2 + 3 + 3 + 3 + 3 + 3 + 4 = 29$$

SUS score

72.5

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.	x				
2. I found the system unnecessarily complex.				x	
3. I thought the system was easy to use.	x				
4. I think that I would need the support of a technical person to be able to use this system.				x	
5. I found the various functions in this system were well integrated.		x			
6. I thought there was too much inconsistency in this system.		x			
7. I would imagine that most people would learn to use this system very quickly.	x				
8. I found the system very cumbersome to use.				x	
9. I felt very confident using the system.	x				
10. I needed to learn a lot of things before I could get going with this system				x	

### SUS for Catawiki

Total score

$$0 + 0 + 0 + 1 + 1 + 3 + 0 + 0 + 0 + 1 = 6$$

SUS score

15

## Test Results for Michela

Task	Success	Time	Efficiency	Satisfaction
Vinted 1.	Success without help	5 minutes	high	medium, standard categories
Vinted 2.	Success without help	1 minute	high	high
Vinted 3.	Success without help	1 minute	high	medium, the seller may be without references
Vinted 4.	Success without help	5 minutes	high	High
Catawiki 1.	Success with help	30 minutes	high	low, process is too long
Catawiki 2.	Success without help	1 minute	high	high
Catawiki 3.	Failure	10 minutes	low	low, no possibility
Catawiki 4.	Success without help	days	high	high

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.			x		
2. I found the system unnecessarily complex.		x			
3. I thought the system was easy to use.				x	
4. I think that I would need the support of a technical person to be able to use this system.	x				
5. I found the various functions in this system were well integrated.				x	
6. I thought there was too much inconsistency in this system.		x			
7. I would imagine that most people would learn to use this system very quickly.					x
8. I found the system very cumbersome to use.	x				
9. I felt very confident using the system.				x	
10. I needed to learn a lot of things before I could get going with this system	x				

### SUS for Vinted

Total score

$$2 + 3 + 3 + 0 + 3 + 3 + 4 + 0 + 3 + 0 = 21$$

SUS score

52.5

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.		x			
2. I found the system unnecessarily complex.				x	
3. I thought the system was easy to use.		x			
4. I think that I would need the support of a technical person to be able to use this system.	x				
5. I found the various functions in this system were well integrated.			x		
6. I thought there was too much inconsistency in this system.		x			
7. I would imagine that most people would learn to use this system very quickly.			x		
8. I found the system very cumbersome to use.				x	
9. I felt very confident using the system.			x		
10. I needed to learn a lot of things before I could get going with this system				x	

### SUS for Catawiki

Total score

$$1 + 0 + 1 + 4 + 2 + 3 + 2 + 1 + 2 + 1 = 17$$

SUS score

42.5

## Test Results for Mario

Task	Success	Time	Efficiency	Satisfaction
Vinted 1.	Success without help	10 minutes	high	high
Vinted 2.	Success without help	2 minutes	low	low, restricted filtering
Vinted 3.	Success without help	2 minutes	high	high
Vinted 4.	Success without help	10 minutes	high	High
Catawiki 1.	Success without help	30 minutes	high	high
Catawiki 2.	Success without help	30 seconds	high	high
Catawiki 3.	Failure	10 minutes	low	low
Catawiki 4.	Success without help	days	high	high

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.					x
2. I found the system unnecessarily complex.	x				
3. I thought the system was easy to use.					x
4. I think that I would need the support of a technical person to be able to use this system.	x				
5. I found the various functions in this system were well integrated.			x		
6. I thought there was too much inconsistency in this system.			x		
7. I would imagine that most people would learn to use this system very quickly.					x
8. I found the system very cumbersome to use.	x				
9. I felt very confident using the system.					x
10. I needed to learn a lot of things before I could get going with this system	x				

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.		x			
2. I found the system unnecessarily complex.			x		
3. I thought the system was easy to use.		x			
4. I think that I would need the support of a technical person to be able to use this system.	x				
5. I found the various functions in this system were well integrated.			x		
6. I thought there was too much inconsistency in this system.	x				
7. I would imagine that most people would learn to use this system very quickly.		x			
8. I found the system very cumbersome to use.			x		
9. I felt very confident using the system.			x		
10. I needed to learn a lot of things before I could get going with this system			x		

### SUS for Vinted

Total score

$$4 + 4 + 4 + 4 + 2 + 1 + 4 + 4 + 4 + 4 = 35$$

SUS score

87.5

### SUS for Catawiki

Total score

$$1 + 1 + 1 + 4 + 2 + 4 + 1 + 1 + 2 + 1 = 18$$

SUS score

45

By analysing the results, the mean of the SUS scores for the Vinted application is 73.7, above the threshold of 68 out of 100, which identifies good usability of the system. As for the Catawiki application, the results are slightly different. The mean of the SUS score is 37.5, way below the threshold. In general, all the participants found the Catawiki unnecessarily complicated, even though it offers a wide range of customization both for the research and for the selling too, but it is very specific and not so easy to use. On the other hand, they all found Vinted very usable and efficient, with a clearer set of commands, even though it doesn't offer so much in terms of customization.

For what concerns the errors made by the participants, in the Vinted application the first error (E1), for some participants, has occurred while trying to message the seller. The message button displays the information "get more info", without explicitly mentioning the chat option. Thus, some users had some difficulties understanding where to click for this purpose. The second error (E2) occurred after a purchase: it was not clear for some users that Vinted would have immediately taken the money from the buyer, while the money would be sent to the seller only after the buyer confirmed the reception of the package.

In the Catawiki application, the first error (E3) occurred in the selling phase: all the participants were looking for an easy button to start the sale. They had to be guided to open the side menu and look for the "submit new object" button. The second error (E4) occurred while trying to reach the seller: the user thought to be able to contact the seller as in Vinted to receive some preliminary information about the item, but they didn't find the Message button in the item page. Having learned from the previous error, all participants opened the side menu, finding the "messages" section, but it was not clear how to contact the sellers. They needed to be informed by the assistant that this functionality was possible only after winning an auction and paying for the product.

## 2.2.4 Urgency Curve

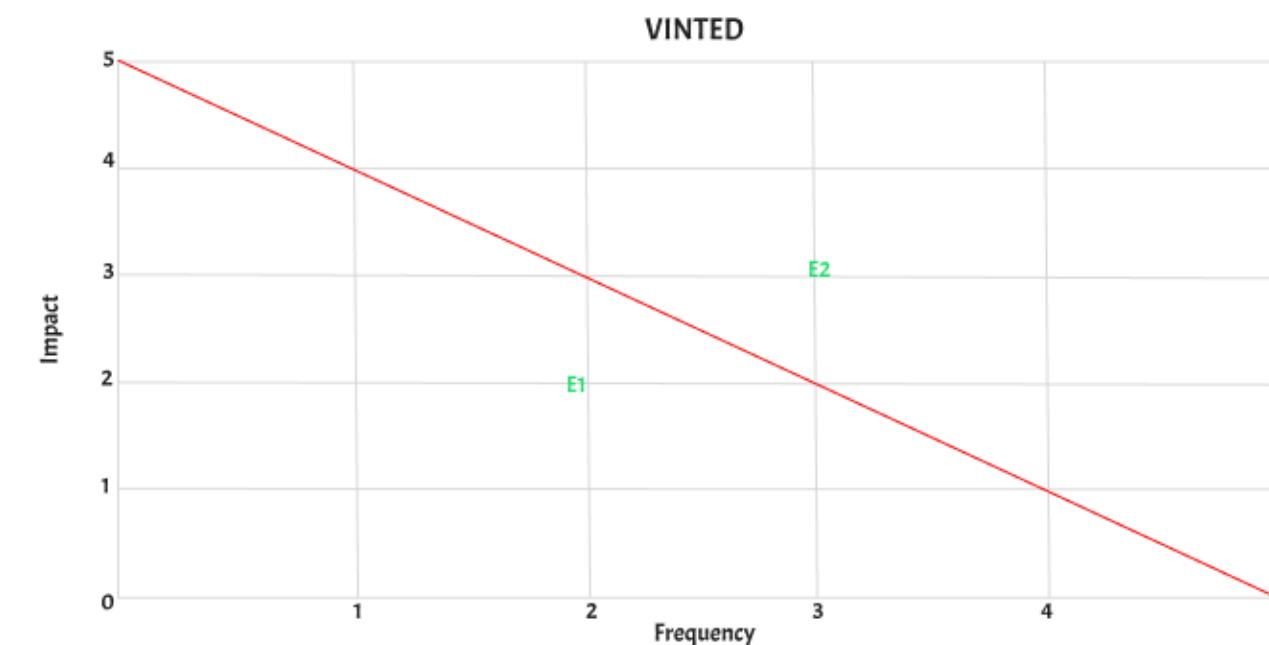
The urgency curve has been created on the basis of the Usability Testing results of the previous section. In particular, a frequency/impact chart has been populated with the errors made by the participants. An urgency threshold has been drawn, above which all the errors have to be fixed as soon as possible.

## 2.2.5 Conclusions

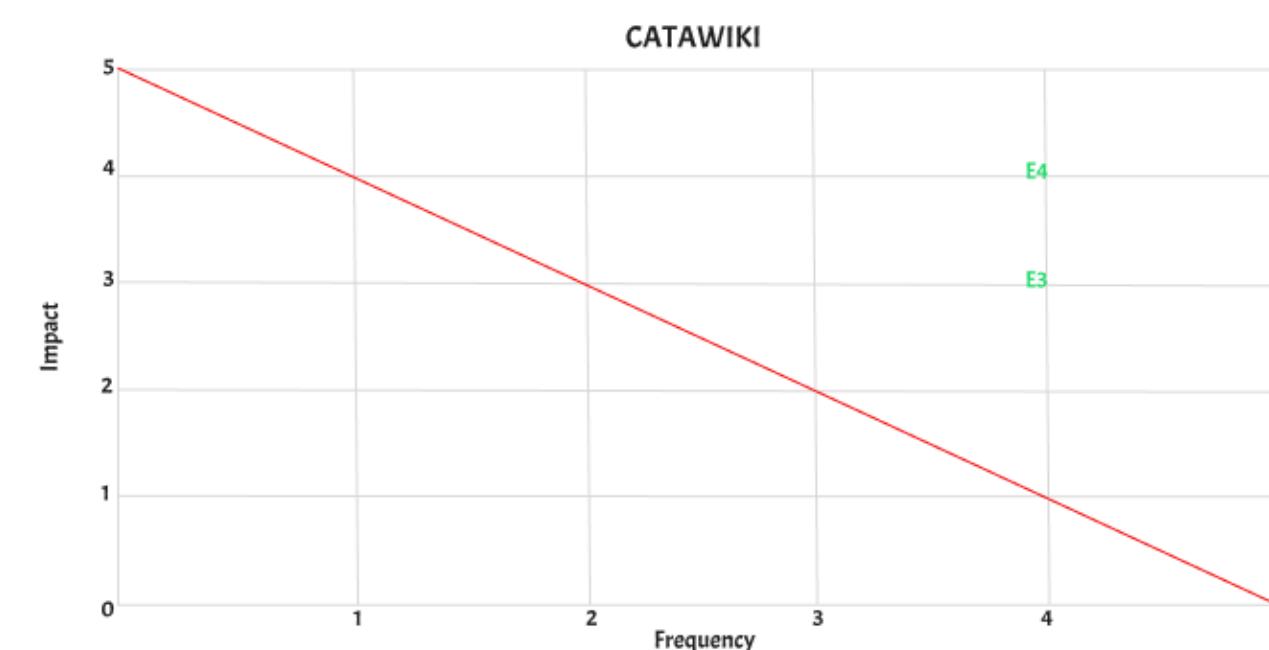
We can conclude that the Vinted application has obtained better results, both for Satisfaction and Efficiency of the system. For what concerns the SUS methodology, Vinted obtained higher scores too. Catawiki, on the other hand, has been scored lower, being too difficult and/or unclear in some passages.

In particular, the pros of the Vinted application resulted to be: an easy icon for identifying the selling procedure (a simple + sign); the possibility to message directly with the seller; the possibility to make an offer for the item to buy; the temporary held of money by Vinted before sending it to the seller. On the other hand, the cons are considered to be: the lack of customisation for both the selling and searching of items; the predefined conditions in the selling phase that consider only clothes; no guarantee for what concerns the seller (if no reviews are available); in general few results about specific products (e.g., vintage consoles).

For the Catawiki application, the pros are the following: a wide range of customisation offered for the specific object sold, in order to deliver more information to the buyer; the rating made an expert based on the conditions, pricing and typology of item; the wide range of filters for refine the research of items. The cons are: the lack of visibility of some functioning of the application, such as the selling button; the possibility to chat with the seller only after having purchased the item; the long waiting times given by the possibility to buy only via auctions.



URGENCY CURVE VINTED



URGENCY CURVE CATAWIKI

# 3 Feasibility Study

## 3.1 Context of use

In this chapter we are trying to give a shape to the context of use of the PLAYED application, together with a better definition of the user and tasks performed by them.

### 3.1.1 Intended Users

By taking into account the results of the survey results reported in the first chapter, we can identify our intended users dividing them into two segments:

1. people born between the end of the 80s and the beginning of the 90s. The target audience is a very specific and niche typology, being composed of people passionate about retro-gaming, willing to collect or play again (or finally for the first time) with their childhood-dream-console.
2. people selling vintage consoles and video games who want to have a small income by selling them.

Furthermore, we expect them to be familiar with e-commerce platforms and, given the very specific field, we expect them to have specific competencies about the products sold, having high expectations on the physical conditions of the product.

### 3.1.2 Intended Tasks

We expect our users to perform some specific tasks, also considering the various suggestions emerged during the survey analysis.

First of all, we will consider the action related to the sales. Users will be able to sell items, by inserting specific information related to the category of the product (e.g., a console edition, a videogame special release, etc.), uploading photos and/or videos of the vintage consoles/video-games. Another task related to the sales is the possibility for the seller to ask for a specific review of the item, performed by some experts (collaborating with local gaming stores, e.g. CeX or GameStop), by paying a fee for this service: the seller would be able to

send the item to the shop and, after having received the evaluation, he/she would be able to accept it or refuse it. If the review is accepted, the expert would take charge of the shipping of the item, which would be inserted in a special package ensuring its conditions and an NFT would be associated with the item sold, as a mark of guarantee. The price displayed on the app would be a "reviewed price", with the signature of the expert and the updated photos of the sealed item. If, on the other hand, the seller decides to reject the review, considering it below its expectation, he/she would receive the product back and be free to sell it to the desired price, without having the guarantee of the expert review under its product.

For what concerns the tasks related to the purchases, the users will be able to search for the items filtering the results with a wide variety of specific categories, to maximise the experience and simplify the overall process. The second task related to this is the actual purchase. The user is able to: contact the user directly via private chat; to make an offer directly to the seller; to buy the object at the selling price. In addition, all the transactions are secured by the app, which will retain the money until the buyer notifies the reception of the product.

Some additional tasks will include the possibility to follow the seller and recommend him/her and to explore the sales by applying a specific filter based on the current location.

### 3.1.3 Environmental and technical constraints

The technical constraints for our service are first of all the familiarity with e-commerce and online auctions; we thus assume that every user possesses an electronic device (in particular a mobile phone) on which the service can be used.

There are no specific cultural or ethnic constraints, since the only limit for our service is being passionate about this specific topic or being curious about it. As a matter of fact, our survey has been submitted also to an oversea audience, in particular to US citizens.

## 3.2 Personas and Scenarios

Understanding the target audience is crucial for creating successful products. User personas are a valuable tool for answering the question, "**Who are we designing for?**" By gaining insights into the expectations, concerns, and motivations of the target users, designers can create products that meet their needs and preferences.

Here are some of the benefits of using personas in the UX design process:

- **Build empathy:** Empathy is a core value for designers who want to create products that are beneficial for users. User personas help designers gain a perspective similar to the user, recognize that different people have different needs and expectations, and identify with the user they are designing for. By engaging with personas and seeing them as real people, designers can create products that are more user-centred and empathetic.
- **Provide direction for making design decisions:** User personas help designers shape product strategy and prioritise feature requests based on how well they address the needs of the primary persona. By understanding user behaviour and needs, designers can create products that meet the requirements of the target users.

However, personas alone have limited value. They become valuable only when they are used in conjunction with **scenarios**. A scenario is an imagined situation that describes how a persona would interact with a product in a particular context to achieve their end goal(s). Scenarios are important for understanding the main user flows and creating design solutions that meet the needs of the target users.

In conclusion, personas are powerful tools for UX design. When used properly, they can guide the ideation process and help designers create products that provide a good user experience for the target audience. By keeping the real user at the heart of everything they do, designers can work more mindfully and create products that meet the needs of the users.

In this paragraph we deliver six plausible personas, based on our intended users, and we placed them into six different scenarios.



Carlo Romano



Rossana Martinez



Christian Bonelli



Sofia Pasotti



Giuseppe Marinetti



Silvana Razzetti



AGE  
**33**

OCCUPATION  
**FULL-STACK DEVELOPER**

FAMILY  
**SINGLE**

FAVOURITE SHOP  
**TECH AND GAMES SHOP**

TECHNICAL SKILLS  
**HE IS HANDY WITH EVERY TECHNOLOGICAL DEVICE, PARTICULARLY WITH COMPUTERS, SMARTPHONES AND VIDEOGAMES.**

HOBBY  
**HE IS PASSIONATE ABOUT PLAYING GAMES, BOTH ONLINE AND WITH CONSOLES.**

### **Carlo Romano**

**"My videogames are my best friends. What else?"**

Carlo is a 33 years old developer with a degree in Computer Science. He is currently single and lives alone in a house that his parents gave to him. He works mostly from home during the year and when he is not working, he spends his time playing with his brand-new console or online with his loyal team. He is not interested in a relationship and he prefers to spend time at home or out with his friends, who are not so many. It is because Carlo is an introvert and it is difficult for him to be himself or open up with other people. Because he does not go out frequently, he has saved some money and now he wants to spend some of it on buying his childhood consoles for playing again with them. But he does not want to spend much time searching for them.

### **The flash purchase**

Carlo has just finished playing Super Mario 3D World, the latest Nintendo's game. While playing, it occurred to him that when he was a child he loved a Super Mario game for his Nintendo GameCube. He does not remember exactly the name of the game, but he is sure that he can recognize the cover if he sees it. One of his online team's members has just told him of a new app, called PLAYED, in which you can find a lot of old games and consoles. Usually he buys by chance, because he does not like to spend time on searching for a specific item, but the idea of an application dedicated only to this stuff intrigues him. So, he downloads the app and registers for it. He notices that the application is similar to the famous Vintered one - but he is not really interested in used clothes nor in selling his own goods. On the other hand, he finds interesting the possibility to search into different categories. So he selects the videogame section and filters it with "Super Mario".

The application also allows users to select the console category in order to see also related games. He appreciates the perfect photos of the items and the fact that some items are also verified! And after a few scrolls, that's it! He has found the game he wanted, he has recognized the cover. The price seems honest, but he wants anyway to make an offer to the seller, because there are a lot of interesting games he has put his eyes on.... And just in an hour, the seller has accepted the offer and he buys the game! He is enthusiastic for the little time he has spent buying this game and maybe, thanks to this application, he's willing to extend his little collection of his childhood videogames and spend the money he earns.



AGE  
36

OCCUPATION  
**COMIC BOOK ILLUSTRATOR**

FAMILY  
**ENGAGED**

FAVOURITE SHOP  
**COMIC BOOK STORES, BOOK SHOPS**

TECHNICAL SKILLS  
**SHE IS MARVELLOUS WITH A PENCIL IN HER HANDS,  
BUT IS QUITE PRACTICAL ALSO WITH DRAWING  
TABLETS.**

HOBBY  
**SHE LIKES DRAWING AND READING. SHE IS ALSO  
INTERESTED IN 3D GRAPHICS AND SHE IS TAKING  
LESSONS ON DIGITAL DESIGN.**

### Rossana Martinez

**"A creative-on-broke wife-to-be!"**

Rossana is a 36 years old half-Spanish and half-Italian creative woman. She is officially engaged with Mirco, a postman, and they are planning the wedding for next year. She and Mirco, after some discussions, have decided to move after the wedding in her childhood house, where she lived with her two big brothers who taught her to play videogames. The house is currently empty, because her parents bought a smaller house and her brothers have moved to other cities. In the past years she has published some comics, but her income was not great because she does not have so many followers and readers. After having thought about it, she decided that - with the incoming wedding - she needs to sell some stuff to meet expenses, and her brothers gave her permission to get rid of some of their old games.

### A console for a wedding: the perfect sale

Rossana is trying to understand how to sell all of this old stuff that her brothers left to her in their old childhood house. The wedding's day is getting closer and she has to pay all the suppliers, so this is the right time to sell anything she doesn't use. But, on the other hand, she does not have so much time to spend on selling all the things she has. Recently she saw an advertisement of a new application, PLAYED, which is twin to Vintered, an app that she has already used for selling and buying some bags and clothes. She knows that she can use the same account to sell on PLAYED, so she decides to download the app and log in.

She likes the minimalist design and the user-friendly interface. Following the instructions of the "sell" section, she decides to pay a fee in order to evaluate her items from a competent person of the sector. So she writes down all the details of the item (the title, the description, the condition of the item, etc.), adds some photos and a video showing the item, and selects one of the suggested addresses to which to send the item for being evaluated. If the price that the expert chooses will be adequate for her, the sale will be conducted directly by the expert. Otherwise, she will have her items back and she can decide to sell them at any price she wants. She finds this option really convenient and she can't wait to hear how much she can earn from all these old consoles!



AGE  
34

OCCUPATION  
ENGINEER

FAMILY  
IN A RELATIONSHIP

FAVOURITE PLACE SHOP  
TECH SHOP

TECHNICAL SKILLS

HE IS A PROGRAMMER IN HIS FREE TIME, HE IS VERY  
FAMILIAR WITH ALL THE TECHNOLOGICAL DEVICES,  
ALSO FOR HIS JOB AND HIS HOBBIES.

HOBBY

CODING AND VIDEO GAMES

### Christian Bonelli

**"I love mazes. You never know what you'll find behind the corner."**

Christian is 34 years old; he was born in a small town in the south of Italy, more precisely in Apulia. He is very passionate about technology and he tries to give his best to improve his job through coding, too! He always had another big interest: Pokémon. In the past, there were big competitions all around the world within the so-called Pokémon League, in which the participants had to win some tournaments by playing with Pokémon Cards. Christian has always been one of the best players in Italy! He has won a lot of prizes for these competitions and a lot of them are now very rare to find. He has always had another hobby, too: video-games. Obviously, about Pokémon! In his free time, he loves to play video-games with his vintage consoles, but he also loves to look online for consoles or video-games he had during his childhood, for completing his collection! Recently, he has decided to live together with his girlfriend, who is about to move into his apartment. He has thus decided to free up some space, by selling some of the pieces of his collection: don't worry, only the duplicates!

### An inalienable desire...

Christian is trying to buy a very specific vintage console online: the GameBoy Advance SP, the Pikachu edition. He needs this piece to complete his collection of GameBoys. It is the only one which is missing from his showcase! He simply needs to find it and buy it. This is not a simple task to perform, also because he needs to spend a lot of time looking for this product online on the various available platforms. The other day, a friend of his told him that a new application named PLAYED was launched. Curious about it, he decides to look for it in the AppStore of his mobile and to register for it. He immediately finds it amazing: there is both the possibility to sell and to buy vintage consoles and video games: "my paradise", he thinks. He is also very happy about the interface, which is very similar to the one of Vinted, a second-hand item app which he used sometimes for looking for consoles and video-games, even if the customization was not available, because the app was designed for selling second-hand clothes.

On a second glance, he discovers that the app is twin to Vinted: he is very happy about this and trusts the app more! He immediately searches for his beloved treasure and he finds the process very easy: there is a wide range of possibilities for refining the research. There is a very useful feature too: under the item picture, there is a price which is reviewed by an expert in the sector. Very useful for being sure about the price and conditions of the item. After a few minutes he decides that this is what he wants and he clicks the "buy" button without hesitation. He will definitely use the PLAYED app again, for freeing up some space in his apartment, by selling the duplicated items in his collection: his girlfriend will be very happy about it!



AGE  
30

OCCUPATION  
**TECH FIRM EMPLOYEE**

FAMILY  
**SINGLE**

FAVOURITE SHOP  
**DECATHLON**

TECHNICAL SKILLS  
**SHE KNOWS HOW TO USE A LAPTOP AND OBVIOUSLY HER MOBILE PHONE AND SHE IS FAMILIAR WITH E-COMMERCE**

HOBBY  
**WALKS**

### **Sofia Pasotti**

**"I love boxes: they are so perfect and elegant."**

Sofia is 30 years old, she just moved to Bologna to start a new job in a local tech company as HR. She studied Languages in her hometown, and after 5 years of work there and the end of her long term relationship, she has decided to move and to start a new life. Her life changed completely: from her beloved city, she moved to a bigger one, with a different job and a completely different lifestyle. The only place she found to rent is not so big and she needs to free up space. For this reason, she wants to get rid of some old consoles and video games that she doesn't use anymore: she is not really into video-games, even if, when she was little, she used to play with her schoolmates all the afternoons. In addition, they remind her of her ex-boyfriend, who used to play video-games all the time! But now she loves to spend her time outside and she is so happy to be in Bologna: she can't wait to go for a walk around Colli and take a deep breath looking forward to starting her new life... without her old video-games and consoles!

### **New life, no consoles!**

Sofia has decided to get rid of his old video games and consoles: she doesn't use them anymore and they remind her of her past relationship. It is time to change, time to start a new life! She has no idea of the value of the products that she wants to sell, but she is not interested in making money out of them, she just wants to get rid of them. After having tried to register to some e-commerce websites, without being completely satisfied about their service, in terms of insurances and assistance for the sales, she finds out a new application, named PLAYED. The name immediately catches her attention: "it is what I'm looking for!", she thinks.

After having downloaded it and having registered to it, she goes to the "sell" section and finds a very clear set of step-by-step instructions: first, she needs to insert a title for the sale; then, a couple of photos of the item and a video; afterwards, a detailed description, guided through a set of specific categories, has to be inserted; finally a price needs to be set. She could choose between a fixed price, if to accept offers from the buyers or not, and an optional service (with an extra fee) for having her item reviewed by an expert. She is not interested in this last service, nor in the fixed price - having no idea of what it could actually be! She decides to go for the offers, choosing to start from a low price. After having decided the terms of the shipping (on charge of the buyer), she easily submits the sale. She is very satisfied with the service: it is very easy to use and very efficient... after 1 hour she already received three offers for her item!!!



AGE  
34

OCCUPATION  
**DIETICIAN**

FAMILY  
**IN AN OPEN RELATIONSHIP**

FAVOURITE SHOP  
**MUSIC SHOPS**

TECHNICAL SKILLS  
**HE HAS A BASIC KNOWLEDGE OF COMPUTERS AND MOBILE PHONES AND HE IS FAMILIAR WITH OLD VIDEO GAMES**

HOBBY  
**CLIMBING AND CANOEING**

### **Giuseppe Marinetti**

**"Let's go outside and do some activities!"**

Giuseppe is stuck in a job he doesn't like. The routine is making him every day more annoyed. After a period of looking for a new job with no luck, he has now given up on the idea and just tries to enjoy himself as much as he can in his off time. In the wintertime, when he can't go outside to practise his favourite activities he would like to enjoy some good old video games. He is not updated with the new games but he doesn't care, he likes the fact he can replay the games he played with his friends when they were children and play with them when they come over. He would like to have an app where he can find retro consoles and find games he probably already forgot about.

### **It's raining again!**

Giuseppe can't accept that it is raining again for the third weekend consecutively. He can't go outside to practise canoeing and he feels quite frustrated by that. He takes his phone and lies down on the sofa. Scrolling down his infinite scroll social homepage on his mobile phone, he suddenly encounters an ad with an image from an old-fashioned video game that catches his attention. That is the game he used to play with his friend Michele when they were children! He thought he forgot about it but now everything is coming back to his mind. The ad is linked to this new app, PLAYED, and he decided to give it a shot.

After downloading and entering the app, he starts looking for the game (he saw the name in the ad, and now he remembers!) and he finds it! He adds it to the favourites in order to buy it later, because he would also need the console to play with it...but he doesn't remember which one! Luckily the app describes the item, the game in this case, and there is the name of the console on which this game works. He immediately goes to the search panel to look for it and thanks to the research he can find the best deals also for the console he needs. He adds the console to the favourites too. Since some related items are displayed after this action he can also find another video game working on the same console, so he adds it as well and he can now complete the purchases by clicking on the "buy" button under every item. He can't wait to receive them! In the meanwhile outside is no more raining, at least he can go outside to do some shopping at the supermarket...



AGE

26

OCCUPATION

STUDENT

FAMILY

ENGAGED BUT LIVING WITH HER PARENTS

FAVOURITE SHOP

SUSHI RESTAURANTS

TECHNICAL SKILLS

ADVANCED KNOWLEDGE OF COMPUTER AND MOBILE TECHNOLOGY

HOBBY

LEARNING LANGUAGES

### Silvana Razzetti

**"Studying, studying and studying. I need a break."**

Silvana is currently living with her parents in their house in Treviso. She has two older brothers but they have already moved out. Studying is Silvana's main activity since she is enrolled in a very difficult University course. She doesn't have much time to hang out with friends but when she can she loves to eat Japanese cuisine. Sometimes, for a break, she plays Assassin's Creed on her Xbox but it is really time-consuming! Since she is the latest of three sons, she had the chance to play on some old console with her brothers when she was a child. She likes the fact that some old video games are simpler in design and have the opportunity of shorter playing sessions. Since it has been a long time since she has seen the old console, she decides to search for it and maybe try to play a bit with it.

### A sale and a purchase

After a hard exam, Silvana would like to take a short break before starting to study for the next one. So she decides to search for the console she played with her brothers a long time ago but she can't find it... She was able to find some of the games but not the console, a Nintendo 64 from the 90s. Speaking with her parents about that issue she discovers that her freshly retired father just sold the console on a new app called PLAYED, what a pity! What to do now? They still have some games but not the console, so they are useless.

She decides to sell the games too and so she downloads the app her father used since his review was good about it. She learns that the app is supported by Vinted, an already well-known application, so she trusts it. She already used Vinted sometimes but it happened that some items were not in the conditions stated by the seller. She is very happy to see that in this case the items can be reviewed by an expert before the sale, so, after successfully completing the selling procedure and asking for an evaluation by an expert, she is ready to buy some games she always wanted for her GameBoy Advance when she was a child. Luckily she kept her old console in her room and her father didn't sell it!

# 4 Design Proposal

## 4.1 Design Model

We have decided to adopt a **goal-oriented design model**, since with our application we are aiming at accomplishing a specific user-goal and this is also clear from the scenarios we have described in the previous chapter. The best model for this purpose is **Garrett's schema**, which develops on five different planes, going from the abstract - at the basis of the schema - to the concrete: the strategy, stating what the designers aim to offer with the service; the purpose, describing the features and services offered; the structure, the hierarchical organisation of the navigation patterns; the skeleton and finally the surface, the actual interface. We will try to cover each plane by answering some specific questions.

### 4.1.1 The strategy plane

#### What do we want to get from this product?

With PLAYED we want to offer a landmark for all the users interested in buying and selling retrogaming products. We try to gather in one application all the features useful for this purpose, from the possibility to refine the research with specific filters, to the opportunity to pay for an evaluation of the item performed by an expert in the sector, which is a feature frequently requested from users according to our research.

#### What do we want users to get from this product?

PLAYED users will be able to obtain their desired result by performing easy step-by-step procedures. The application offers both the buying and the selling services, allowing the user to perform specific actions in both of them. They will be able both, to sell the unused consoles or to buy missing pieces for their collections.

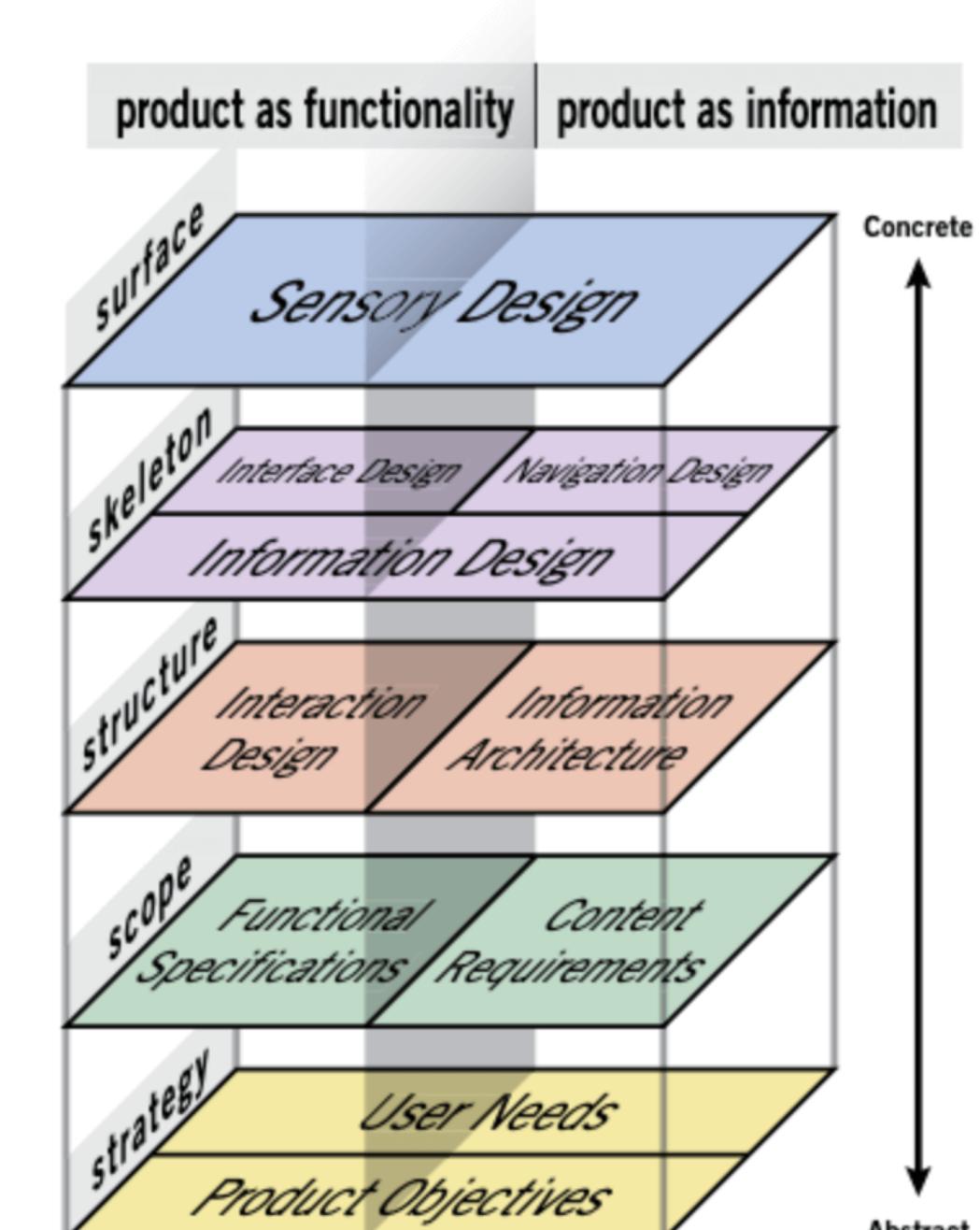
### 4.1.2 The scope plane

#### What are we doing?

To achieve our goal, we are offering a unique service, by putting together all the relevant features for the desired tasks. We are trying to differentiate the current offer in the market, by developing a new application that could serve as a cornerstone in the retrogaming buying and selling environment.

#### What are we NOT doing?

We are not offering a showcase of items that could be bought on different websites, but we are allowing potential buyers and sellers to "meet" using a common service, easy to use and functional for both.



[The Elements of User Experience - User-Centered Design for the Web, Jesse James Garrett]

### 4.1.3 The structure plane

#### How are the services used?

The services offered are used by means of an easy, user-friendly interface, which allows the user to simply select the action to perform. We want users to get a pleasant experience, achieving the experience goal, without getting stressed while looking for possible buyers or searching for the desired console/video game in tens of different e-commerce websites. For this purpose, a gamification experience is integrated in the profile section of each user too. It is related to the completion of specific actions that allows them to gain points and to pass to a higher level. This will give reliability to the user too, during the selling procedures.

#### How do I find the information?

A "search" button is available for the purchase, that can be completed by refining the research through some specific categories. A "sell" button is clickable and the user is guided to the completion of the action by informing the user step-by-step on what should be done. A detailed documentation can be found in the "profile" section, which provides further information about the application itself.

### 4.1.4 The skeleton plane

#### What type of navigation is available?

First, a global navigation allows the user to become familiar with the application, by displaying the main services offered by PLAYED. Then, a local navigation can be used for the research of the items to buy, through some categories and filters to apply to refine it.

#### How is the navigation organised?

The global navigation happens in the Home page, by which all the major components of the service can be reached. The local navigation takes place in the search service, by allowing the user to select specific categories on two different levels of specificity and a further specification through some filters on the result page.

### 4.1.5 The surface plane

#### What will the interface look like?

The interface is conformant to the one of the Vinted application, with some specific features added for the goal of PLAYED.

#### Why?

This allowed us first of all to give reliability to our service, being a lot of users familiar with the Vinted design. In addition, we agreed on the efficiency of the clear, easy and user-friendly design offered by our twin service.

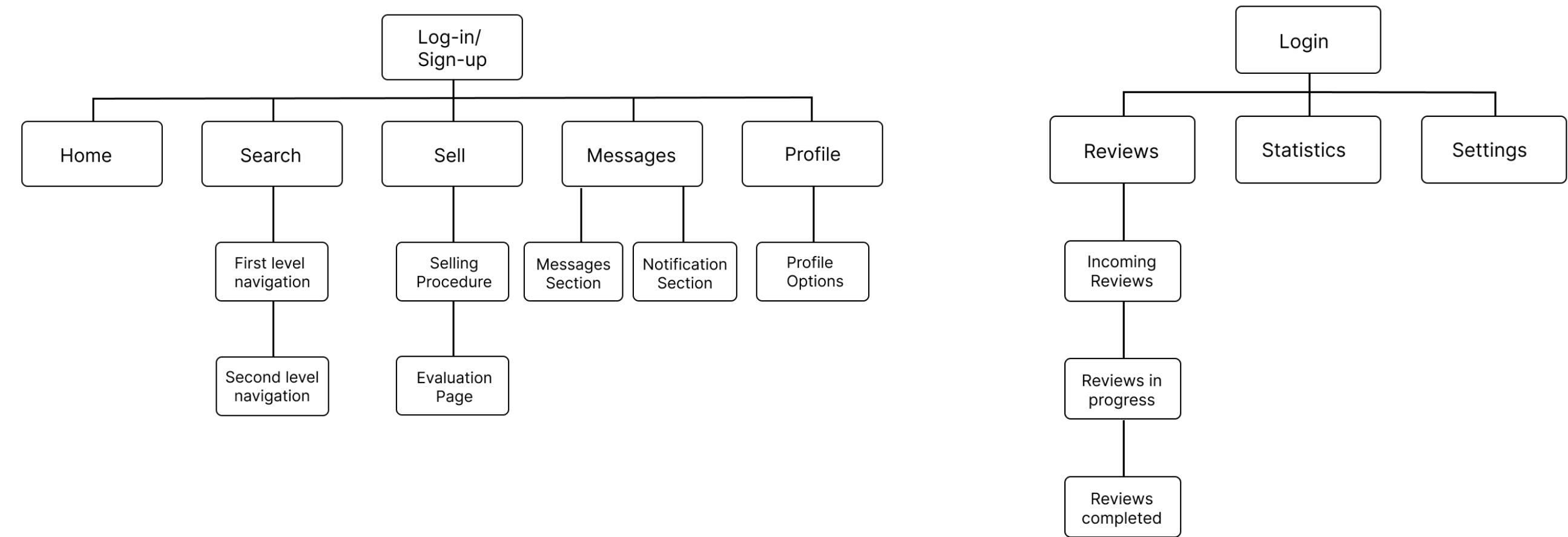
## 4.2 Information Architecture

### 4.2.1 Generic architecture: a top-down approach

In this section we illustrate the PLAYED architecture by showing the main components and a brief description of their functioning and structure.

The first screen consists of the **Sign-up/Log-in** page. The user can either log into the app using the already existing credential for the Vinted account or sign up creating a new profile. After the login, the **Homepage** is shown. This page allows the user to access the various features of the service: **Search**, through which the user can search for the item to purchase; **Sell**, that guides the user in the selling procedure; **Messages**, in which the user can visualise the various messages with sellers and the PLAYED team.; **Profile**, which allows the user to manage all the information related to the account and the tasks to be completed in order to higher the level inside the application.

The following schema shows the hierarchy of the navigation in the PLAYED application.



PLAYED hierarchy of navigation

PLAYED EXPERT DASHBOARD hierarchy of navigation

## 4.3 Interaction Design Approach

Here we describe in detail the functioning of each section within the PLAYED service.

### Sign-up or Log-in

This is the first page that will be displayed on the first download of the app. The user already registered to the Vinted app will be able to log-in to the PLAYED account, while new users will be able to sign-up for the service, following a few simple steps. In the registration form will also be asked to the future users what they are interested in: selling or buying.

### Home

The home page offers a clear and clean interface, allowing the user to access the main services offered by the application. First, a simple showcase with the most popular items is shown. Then, a simple navigation via icons is available. On the bottom, a sticky navbar is available for accessing the research, selling, messages and profile sections.

### Search

The search button allows the user to access the local navigation for purchasing the desired items. A first level of specificity is given by the choice between two different categories: video-game/console, allowing the user to click on "all" for showing both the results and to search directly for the desired item by typing it into the search bar. The second level of specificity is given either by clicking on specific categories - console brands if "console" was clicked, video-game's names if "video-game" was chosen. The user can in addition again type the research or select "all" for displaying all the results. Finally, in the result page a wide range of filters is available for the user (console model, video game edition, item conditions, price and location).

### Sell

The sell section guides the user in the selling procedure. First of all, some photos/videos of the item must be uploaded. Then, a title and a description are required in order to proceed. Afterwards, a specific category must be chosen: console/video game; brand/name (changing after choosing the previous category); with box/without box; working item/non-working item. As a final step, the seller must select a payment: fixed price without offers; fixed prices with offers (accepting thus offers from buyers); selling with evaluation. If the evaluation option is chosen, the user will be displayed a specific Evaluation page.

### Evaluation page

It provides information about the service, showing the experts nearby and offering the possibility to ship the item to the nearest GameStop (or other local partners) shop. It also asks the seller for the desired profit. Finally, the user can send the request. A notification will be sent both via email and via the Messages section with all the information about the evaluation, right after its acceptance and as soon as it has been concluded.

### Profile

In the profile section the user can access all the information related to the account; the favourites with all the items liked by the user; the history of orders and sales (if any); the privacy&conditions and the information about the shipping methods and costs (on charge of the buyer). A FAQ section is also available, showing the most frequent questions with answers related to the PLAYED app. The "Contact Support" button is also accessible from the Profile section. The gamification experience of the PLAYED app is manageable from the profile section, too: the user can have a look at the progress, the levels and the action to be completed. This feature helps the user to gain reliability when selling items: the higher the level, the higher the reliability of the user.

### Messages

In this section all the active and past conversations with sellers or the PLAYED team are available. The user can access, through this section, to the related items and related documentation, too. A sub-section is devoted to the notifications.

### Expert Dashboard

As an additional service, we have developed a Desktop version of PLAYED devoted to the experts collaborating with us. The dashboard allows the experts to manage the active, pending and past requests and to modify the expert profile, which will be displayed to the user if this optional service is chosen. In this section the expert is also able to generate the NFT for the reviewed items, which will be attached to the sold item in order to verify its authenticity.

## 4.4 Structure Blueprints

In this section we are presenting the hierarchical structure of the PLAYED service.

### 4.4.1 Application Structure Blueprints

For what concerns blueprints, we decided to distinguish between **main pages** (screen-view pages), **navigation pages** (that contain an inner hierarchy) and **components** (which identify subcategories or procedures).

At first, we provide the blueprints of the first page as a non-logged user and the actual home page as logged user.

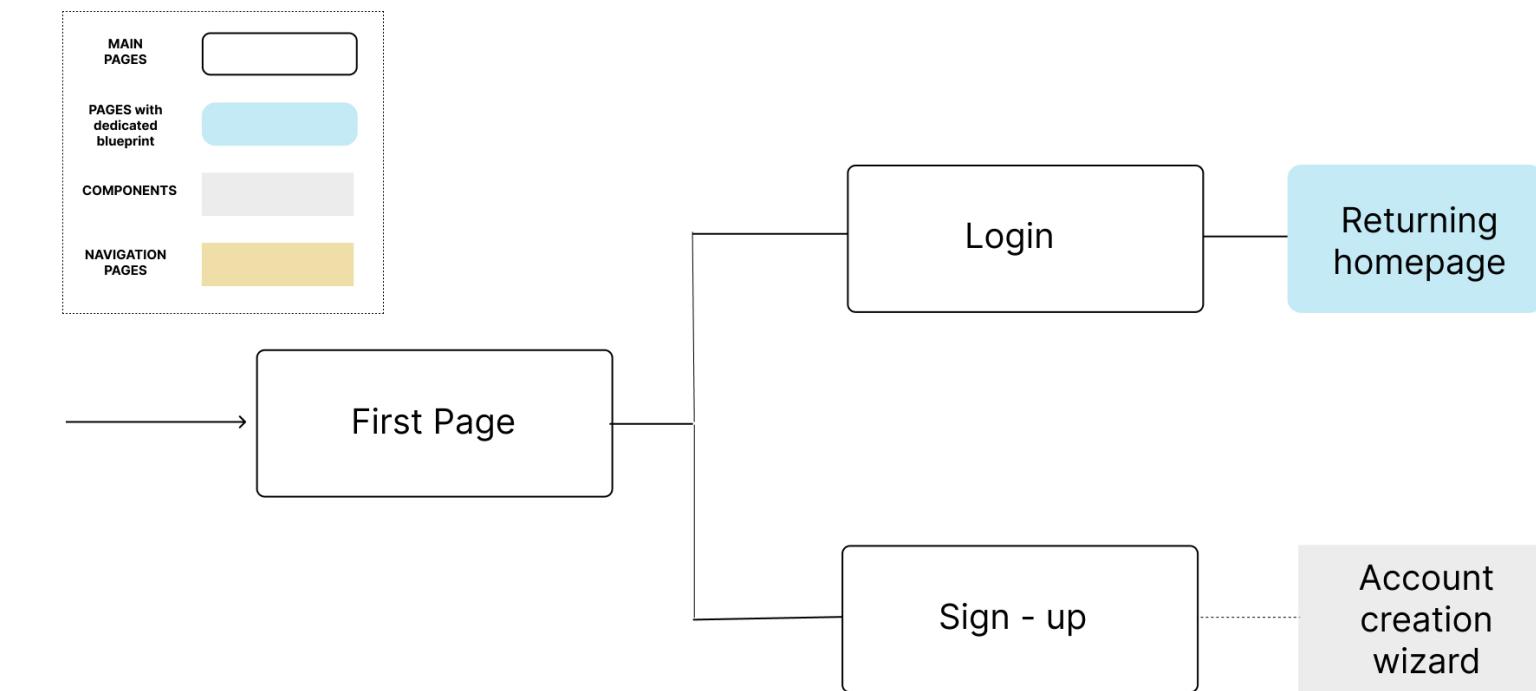
#### Blueprint 1

The first screen-view leads to two different pages: the login and the sign-up. The former opens the homepage, the latter the wizard that allows you to create an account (that will not be examined).

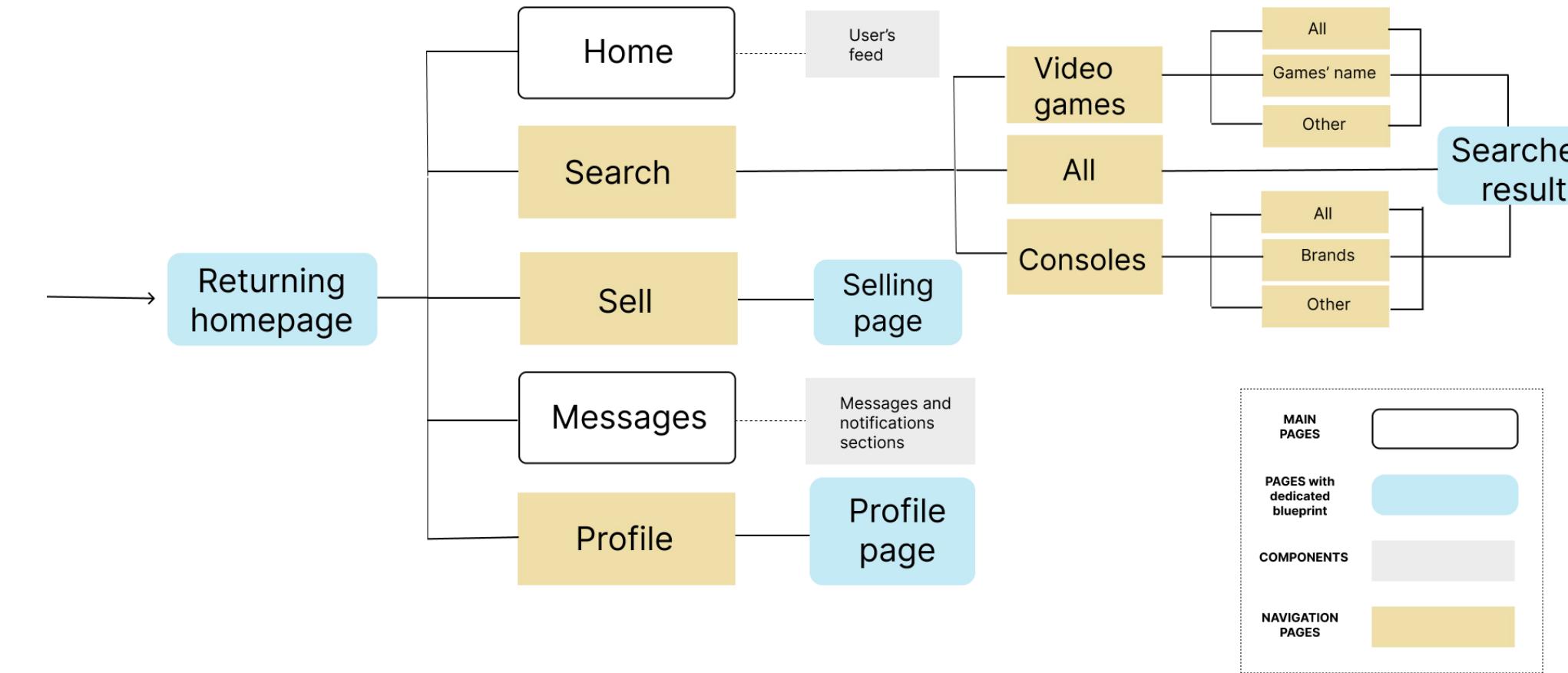
#### Blueprint 2

The returning homepage is characterised by three navigation pages - Search, Sell and Profile - with an inner hierarchy and two pages - Messages and Favourites - that do not have inner pages inside them.

#### Blueprint 1



#### Blueprint 2



Then we provide the detailed blueprint for the searched results' page (i.e. the item page), the selling page (with also the eventually "evaluation option" selected) and the profile page.

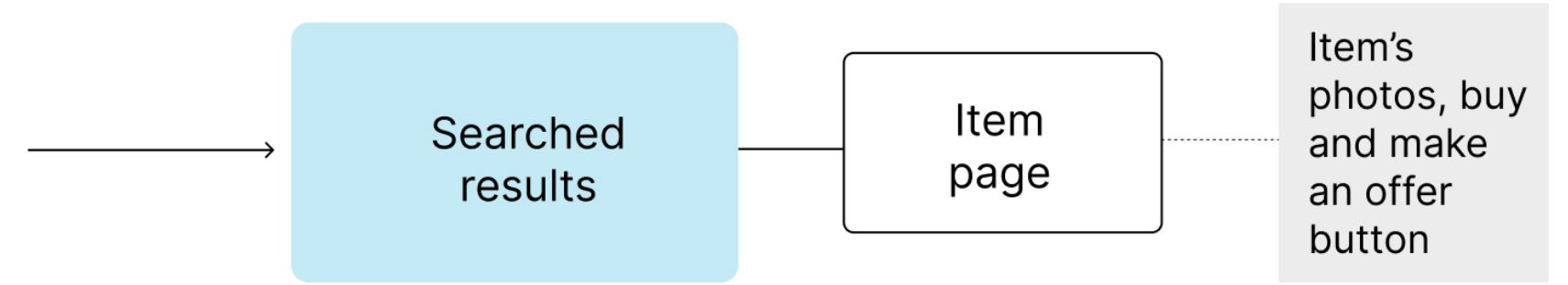
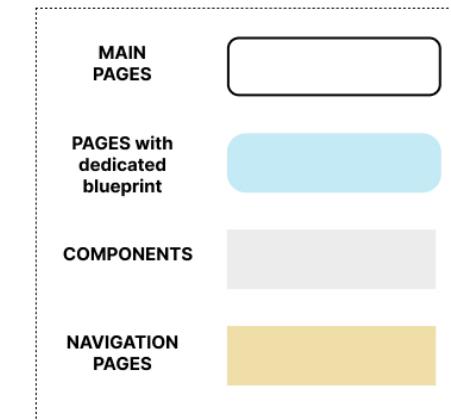
#### Blueprint 3

The searching results' page leads to the single item page, in which the user can use all the tools offered to buy the item.

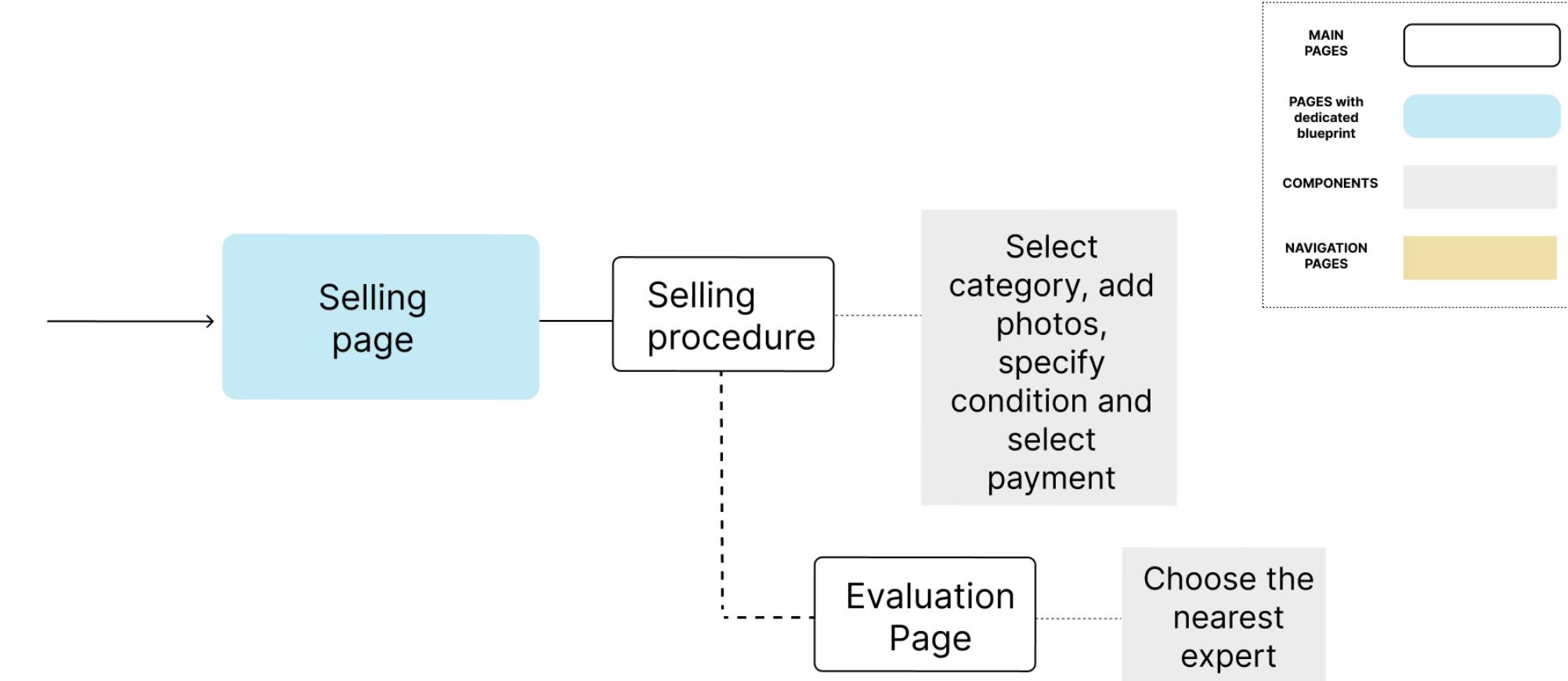
#### Blueprint 4

The selling page is characterised by the selling procedure page, that allows the user to complete some steps in order to sell an item, and eventually it can lead to the evaluation page, in which the user can choose the expert to evaluate the item.

#### Blueprint 3

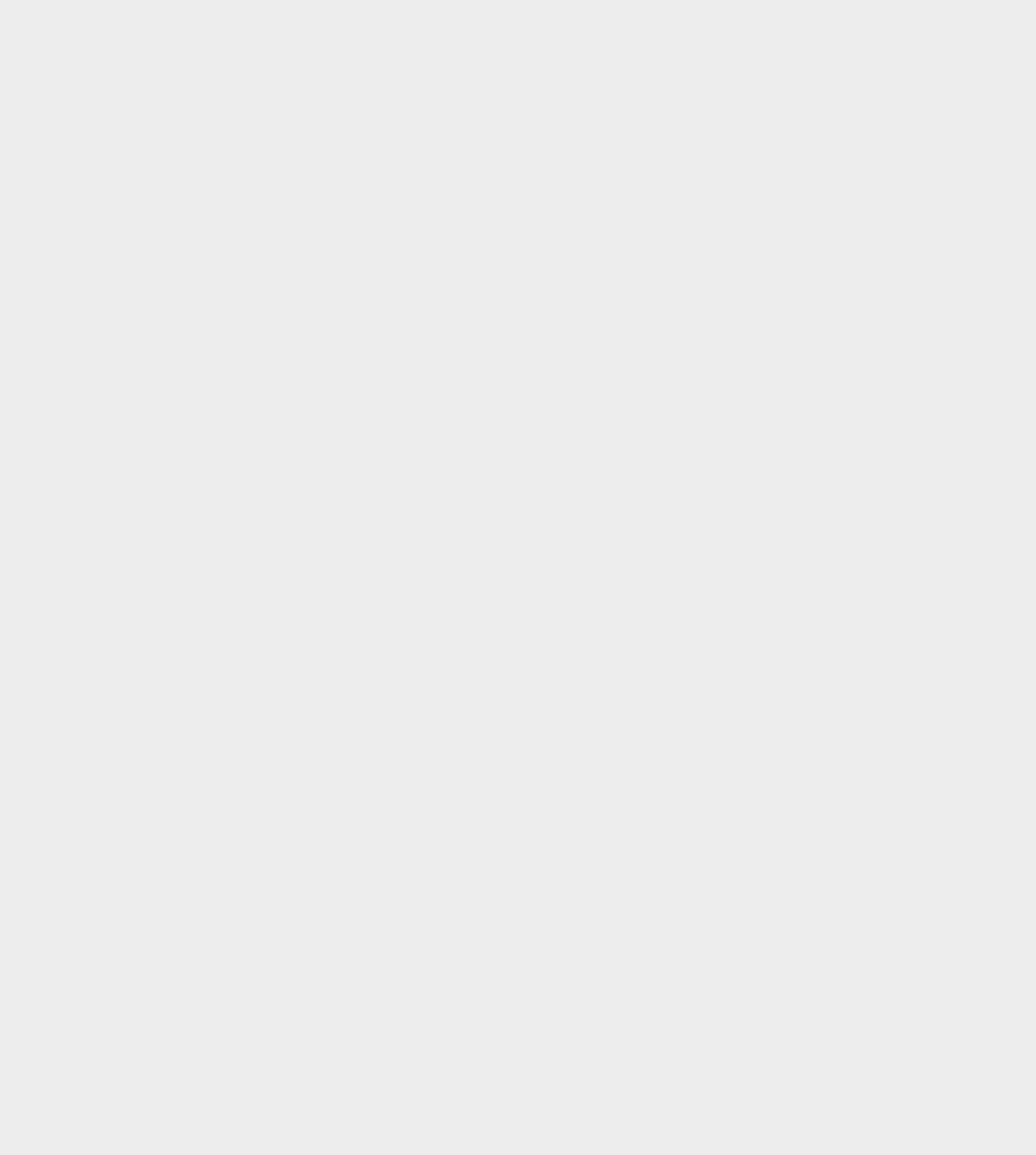
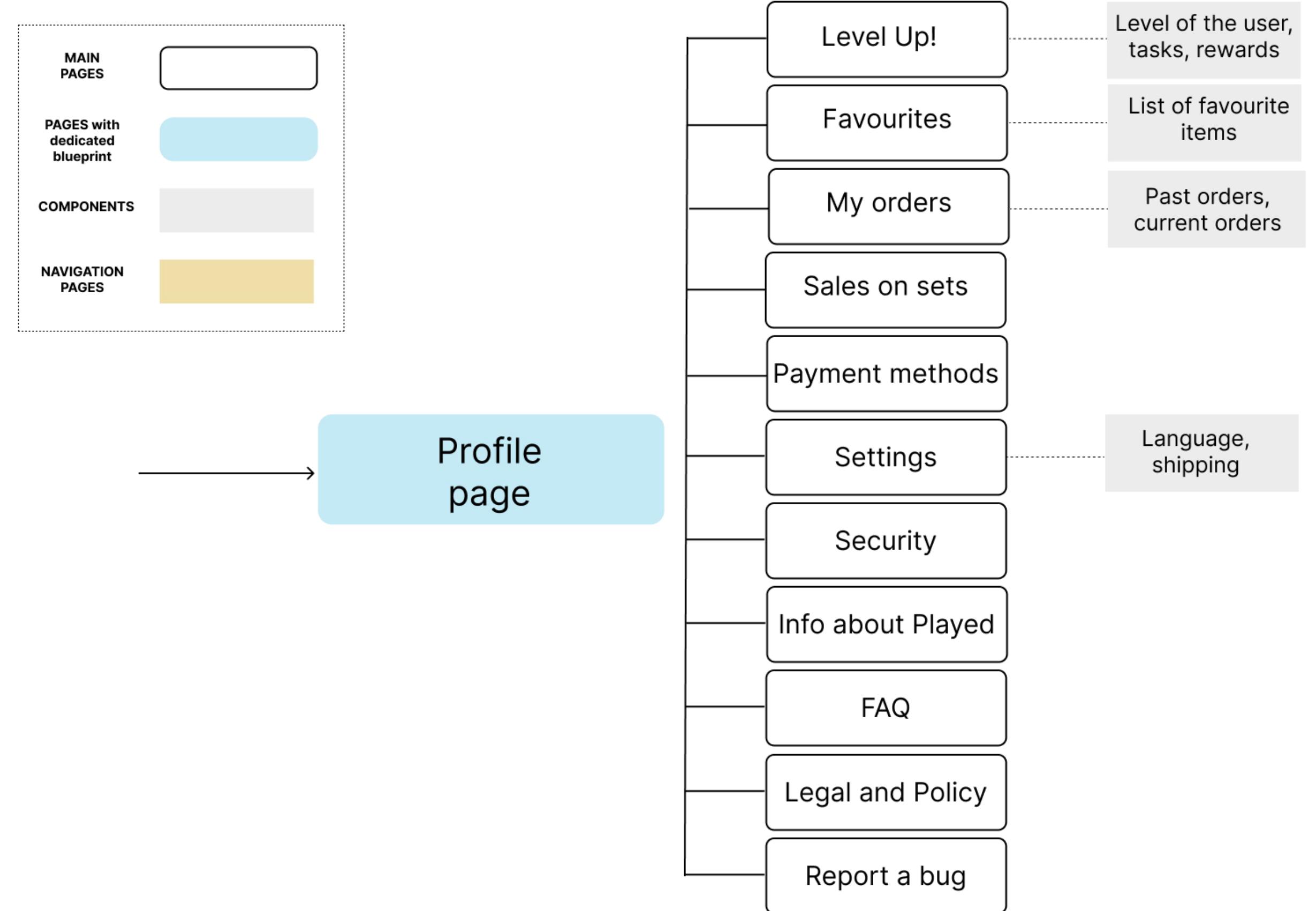


#### Blueprint 4



**Blueprint 5**

The profile page contains a list of subpages that offer different services and the documentation for helping the user.

**Blueprint 5**

#### 4.4.2 Expert Dashboard Structure Blueprints

In this section we will provide the web application's blueprints of the Expert Dashboard. The first is the blueprint of the Login page, while the second is the blueprint of the 'incoming reviews' page.

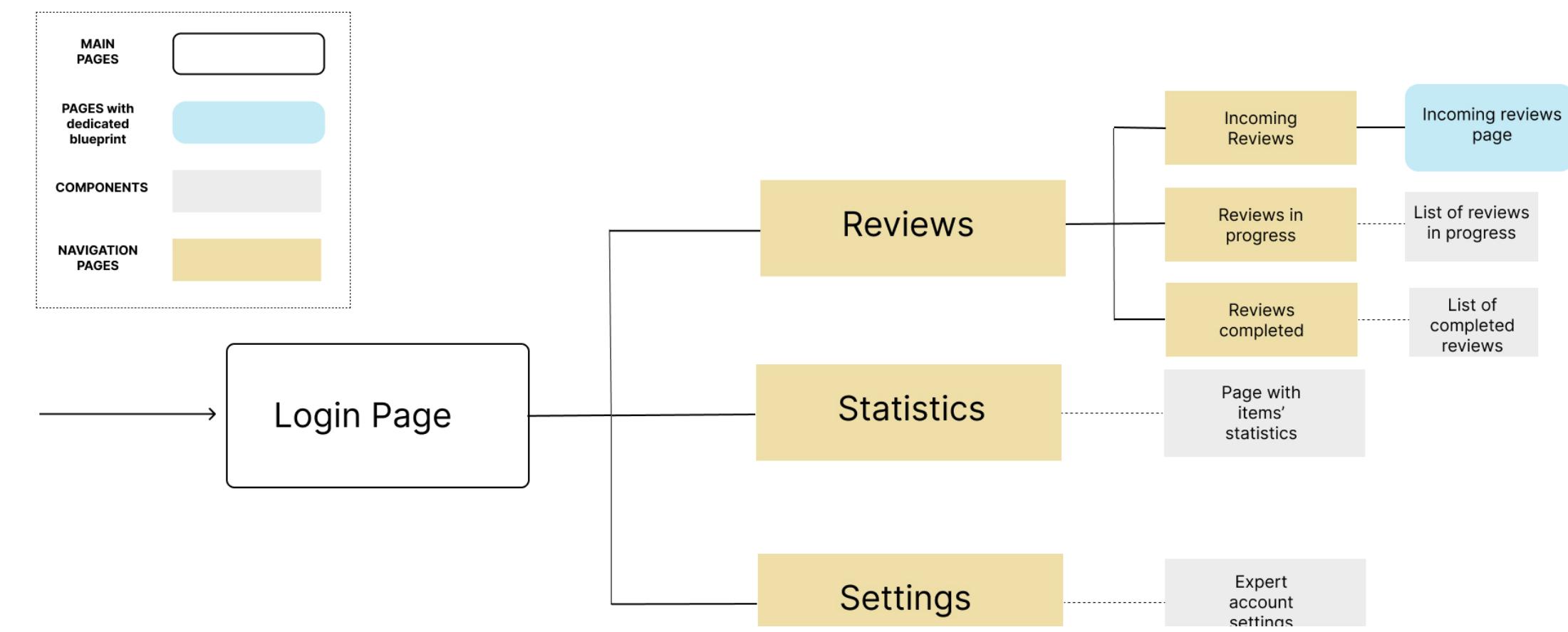
##### Blueprint Dashboard 1

The login page leads to a list of three navigation pages which are Reviews, Statistics and Settings. The first one in particular leads to an inner navigation through the incoming reviews, the 'in progress' and completed ones.

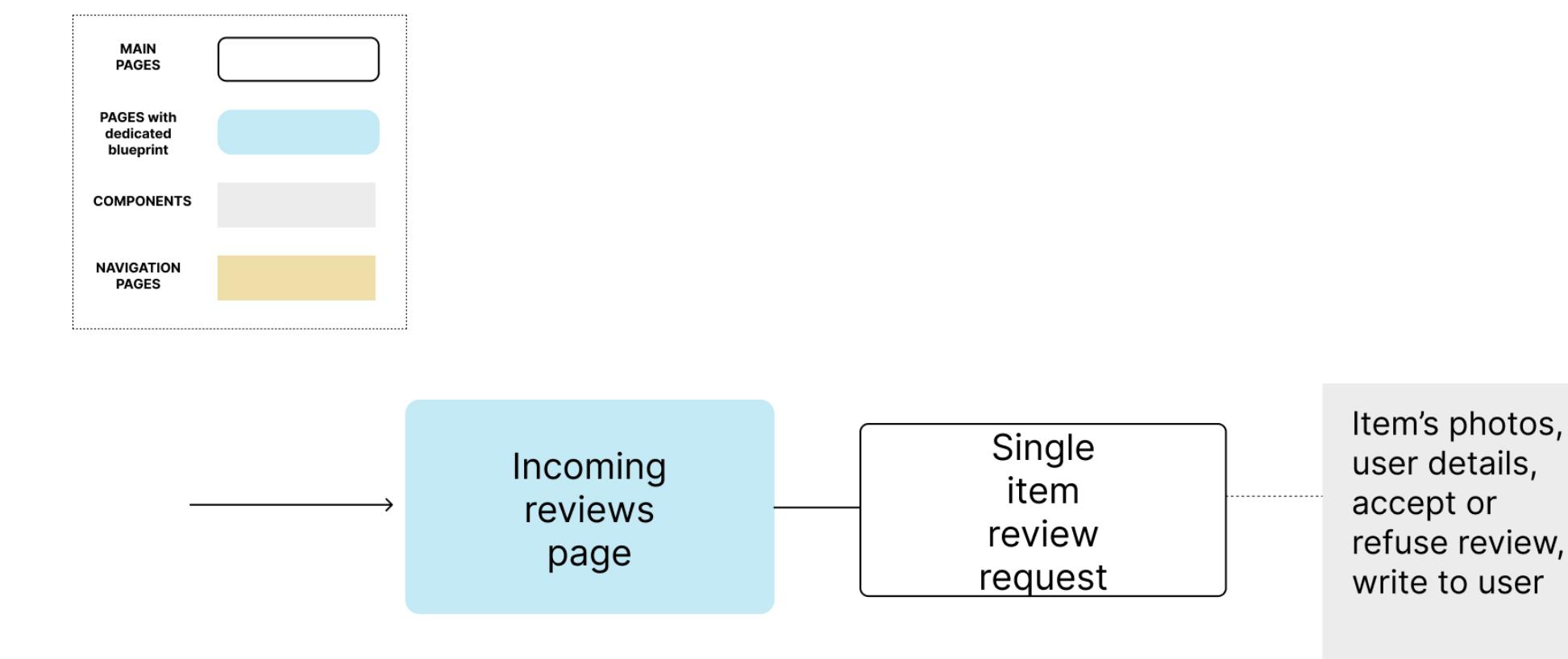
##### Blueprint Dashboard 2

The incoming reviews page is characterised by a list of incoming requests that leads to the single item review request. This latter page shows to the expert all the information provided by the user.

##### Blueprint Dashboard 1



##### Blueprint Dashboard 2



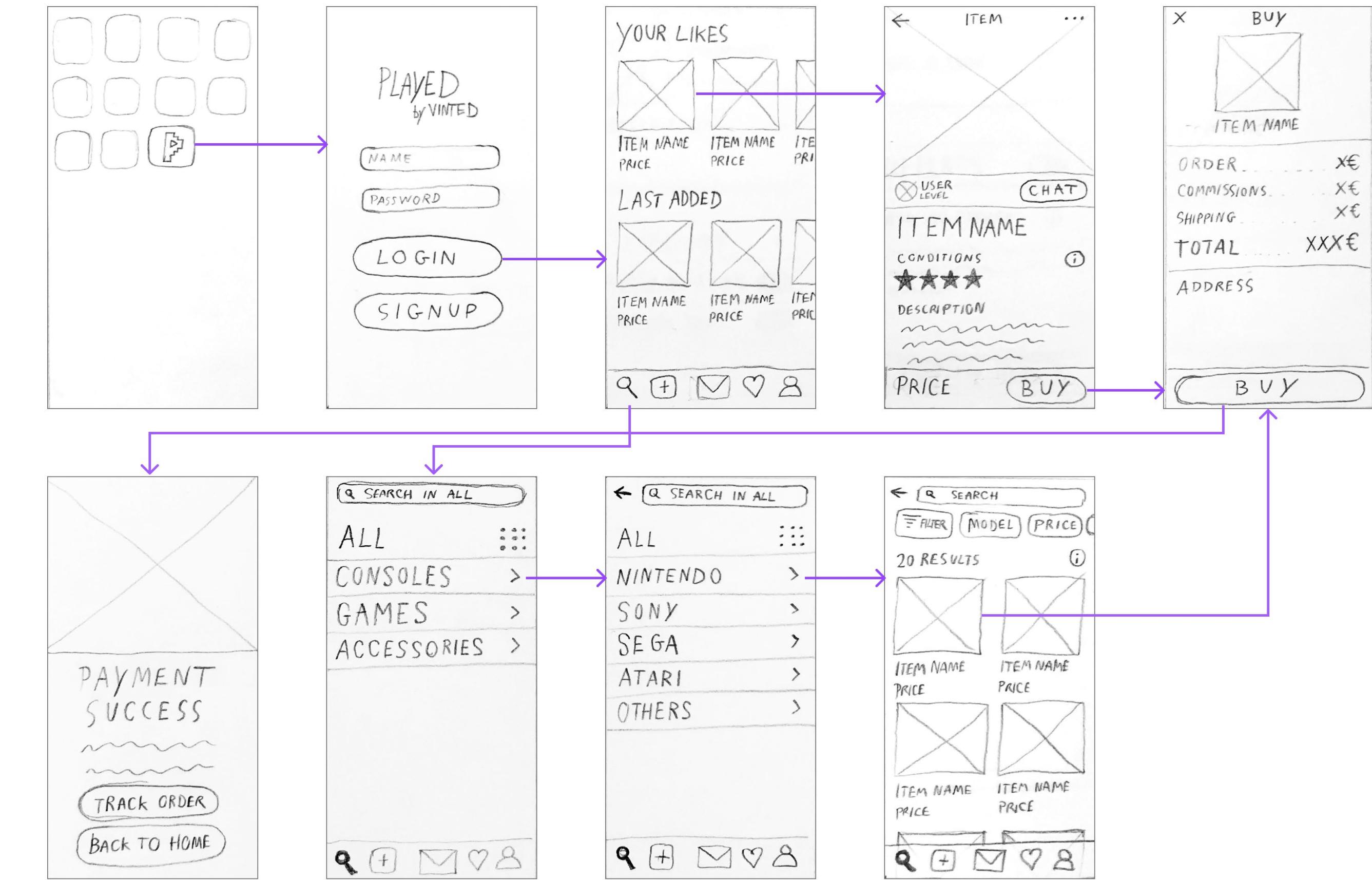
## 4.5 Storyboard

In the storyboard, we organised the content identified during the research phase. Before creating a wireframe and a prototype of the system, we needed to test our conclusions so far. Played is an e-commerce app that focuses on buying and selling items. The storyboards helped test our system on people and collect corrections and fixes.

### 4.5.1 Buy

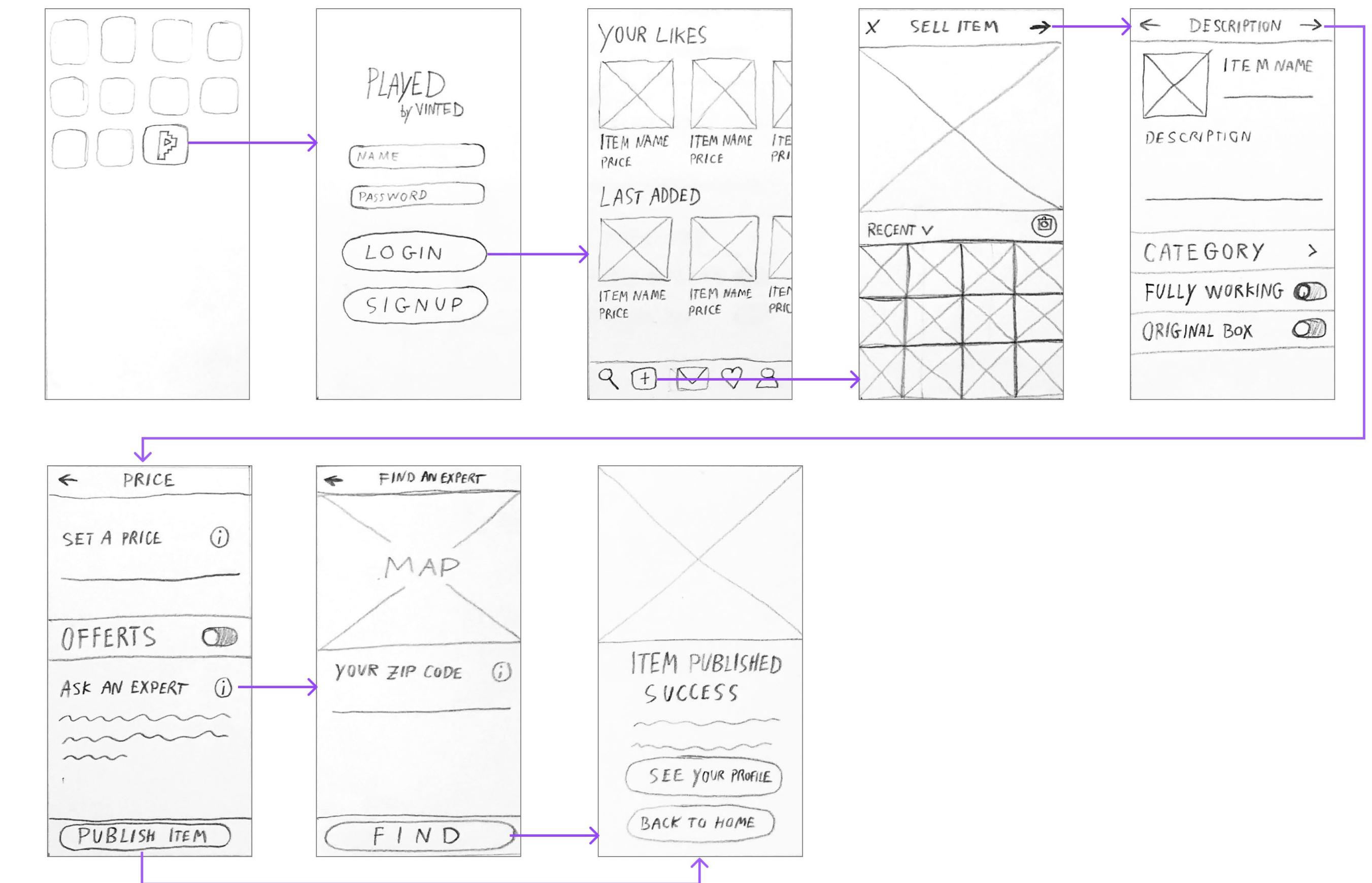
We walked through the actions that a user has to accomplish to buy an item on Played. While designing the screens, we kept in mind that the number of steps to reach the goal should be as minimal as possible. After downloading and installing the app, the user will be prompted with a login screen. If it's their first time using the app, they can also sign up. After logging in, the home page will be displayed. We defined that a "your like" selection of items should be the first thing shown to the user. If the user is new or doesn't have any likes, the other sections will be displayed. During this phase, we were more focused on the user's journey and the number of screens needed, so we didn't include all the interface details.

By clicking on an item, the user enters the item's detail screen. Since the main goal is to buy the item, the bottom navbar switches to a more straightforward one that displays the price and a "buy" button. When the "buy" button is clicked, a more detailed screen will be shown where the user can see the total amount of the order and confirm or add the shipping address. Now, the bottom bar only displays a large "buy" button to make the required action as clear as possible. With just five taps on the screen, a user can go from the home screen of their phone to buy an item in the application. If the item is not shown on the home screen, the user can search for it and then select and buy it.



### 4.5.2 Sell

The second important action we focused on was selling an item. Like buying an item, the goal was to make the process as smooth and effortless as possible for the user. From the home screen, the user can tap on the app icon to enter it. The option to add an item was a key element, so we made it available in the bottom navbar, along with the search option. By tapping on the add icon, the user is sent to the screen where they can upload images of the item. Following the established pattern, we gave the user the option to choose from already existing photos on their mobile phone or take new ones. After that, the user will fill out the item description. We included the option to toggle the "Fully working" item and "Original box" features in case the item comes with its original packaging. These two features are important for the target audience. After completing the description, the user sets the price. We imagined two possibilities: set a fixed price or ask for a quotation from an expert. The storyboard shows the two possible paths from this step. With just six taps from the home screen of the user's mobile phone, it is possible to sell an item.



## 4.6 Wireframes

### Login and Signup

The first wireframe is dedicated to the initial login and signup process for the application. Since our proposal is developed within the pre-existing Vinted environment, users can access it with their Vinted credentials. In the case of new users, it's possible to signup. In this scenario, two additional screens are created to complete the registration and to provide feedback on the successful action. It's important to follow the common "Login" and "Signup" routines we are all familiar with. It's also important to provide useful feedback to the users and communicate with them when the system changes or when an action is successfully completed.

The wireframes illustrate the login and signup process for the PLAYED by Vinted application. The first screen shows a login form with fields for Username and Password, and buttons for LOGIN and SIGNUP. A note below says "You can Login with your Vinted credentials". The second screen shows a signup form with fields for Username, Mail, Password, Mobile, Country, Address, and Zip Code, along with a SIGNUP button. A note below says "You will be able to modify your Profile settings after Signup". The third screen displays a success message: "Signup Success" followed by a note: "Erat nullam enim at non gravida cursus in. Euismod cras vestibulum arcu lacinia. Ipsum tellus sed purus nunc consectetur." A large "START NOW" button is centered on the screen.

**PLAYED**  
by Vinted

Username  
Password

**LOGIN**  
**SIGNUP**

You can Login with your Vinted credentials

**PLAYED**  
by Vinted

Username  
Mail  
Password  
Mobile  
Country  
Address  
Zip Code

**SIGNUP**

You will be able to modify your Profile settings after Signup

**Signup Success**

Erat nullam enim at non gravida cursus in.  
Euismod cras vestibulum arcu lacinia.  
Ipsum tellus sed purus nunc consectetur.

**START NOW**

## Home

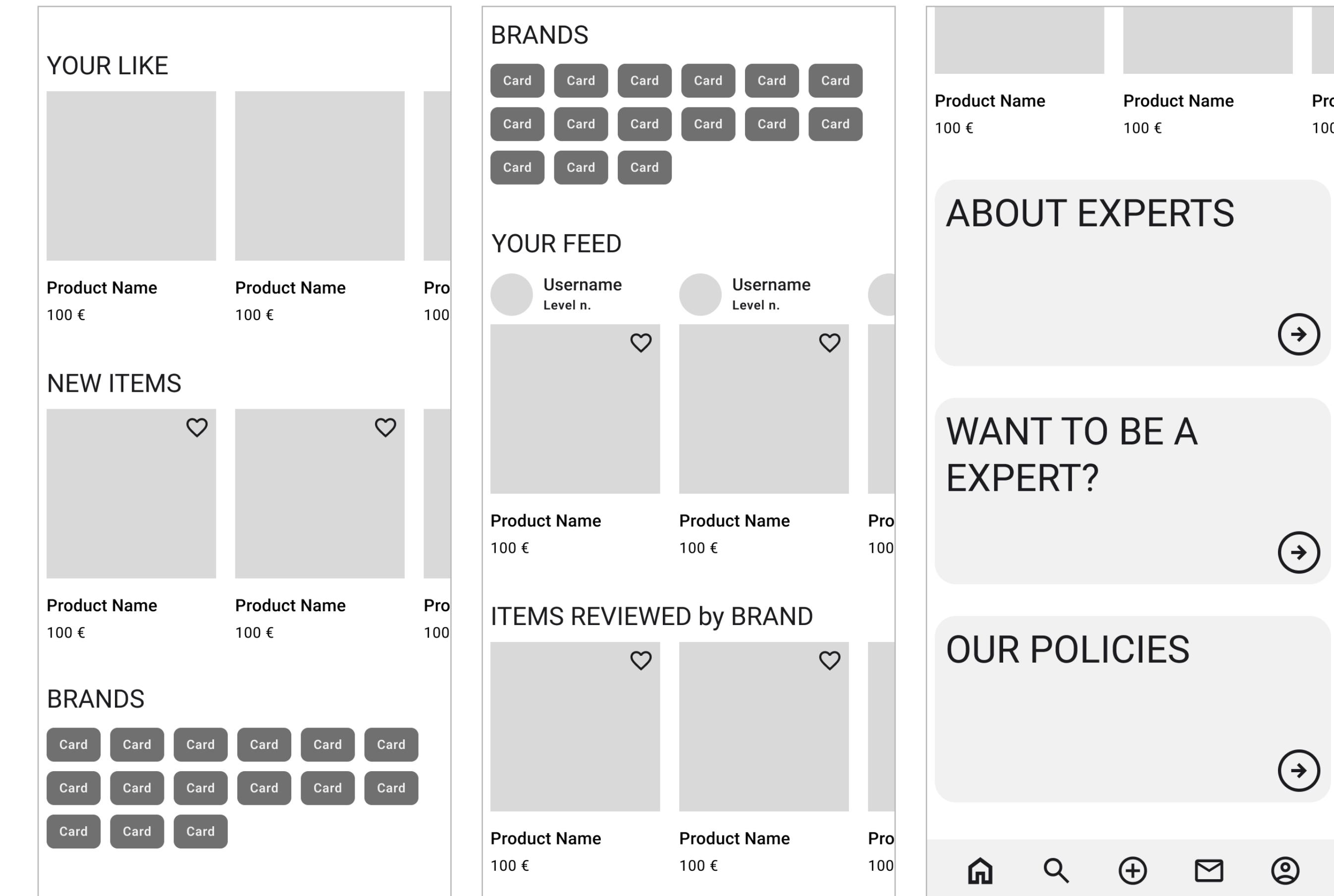
The home screen is the main screen that welcomes the user upon entering the system. Since Vinted and PLAYED's main goal is to sell items, the system presents items first. If a user has saved any favourite items, those will be shown first. The application design is geared towards maximising sales, which prioritises design choices that attract and convert potential customers into paying customers. If there are no favourites, the latest items added will be displayed. We have implemented the ability to like items even in the list view. We kept this possibility in the items' detail as well. Based on our research, we found that the world of gaming is based on brands and titles. Therefore, we have included a list of brand tags, which will be automatically sorted in descending order to show the most present brands in the application.

The next section is dedicated to the items added by the users you follow: "your feed." In this market niche, people are often passionate about the subject matter, making it important to offer the option to follow specific users. To accommodate this, we have incorporated a feature in the application that presents a curated selection of items uploaded by the users being followed.

The last list of items presented on the home page is dedicated to items reviewed by experts. In this section, we wanted to give importance to the role of the expert we introduced.

The last section is dedicated to information and guides. Based on our analysis, we found that providing users with guides or answers to their questions is always helpful. We want a system that appears reliable and open.

We have decided not to use the infinite scroll design option since we don't want our users to feel lost and we don't want to encourage incorrect usage of their mobile phones. While we do want people to stay in our app, our primary focus is on providing quality content.

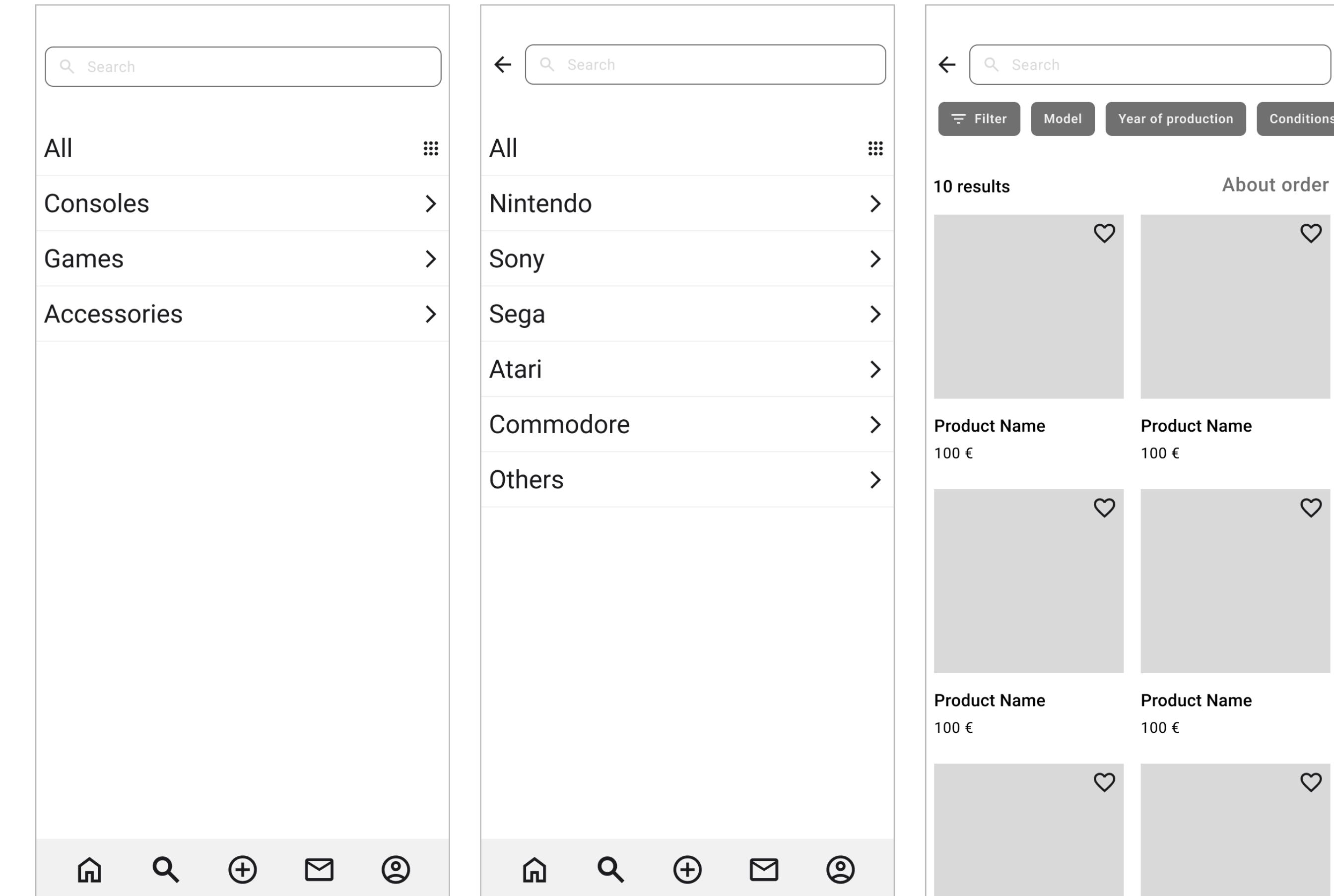


## Bottom navigation bar

The bottom navigation bar is a key element for navigating the application. We upgraded it from our first sketches, and the final design comprises these five elements: Home, Search, Add Item, Messages, and Profile. During tests, we found that a "Home" button in the navigation is a helpful standard in many applications, so we decided to maintain it in our design.

## Search

For the search section, we maintained the Vinted design while upgrading the organisation of the categories. Through our analysis of the market, we found that this niche is mainly divided into three categories: Consoles, Games, and Accessories. Of course, it is always possible to search for a specific item using the search bar. To quickly present some items to users, we decided to keep the search feature simple and designed no more than two levels of categories. Once the desired category is reached, the results will be displayed. We have also enabled the possibility to apply filters to the results.



## Item detail

This section presents a specific item with images and videos uploaded by the seller. We have retained the option for users to "like" an object even when viewing the details. As previously mentioned, seller reliability is a key feature for our target users, so we display the seller's name and level (which we will explain later) right after the images. We have also implemented the option for buyers and sellers to chat, as it is a widely used design choice. Therefore, the "Chat" button is located next to the seller's name.

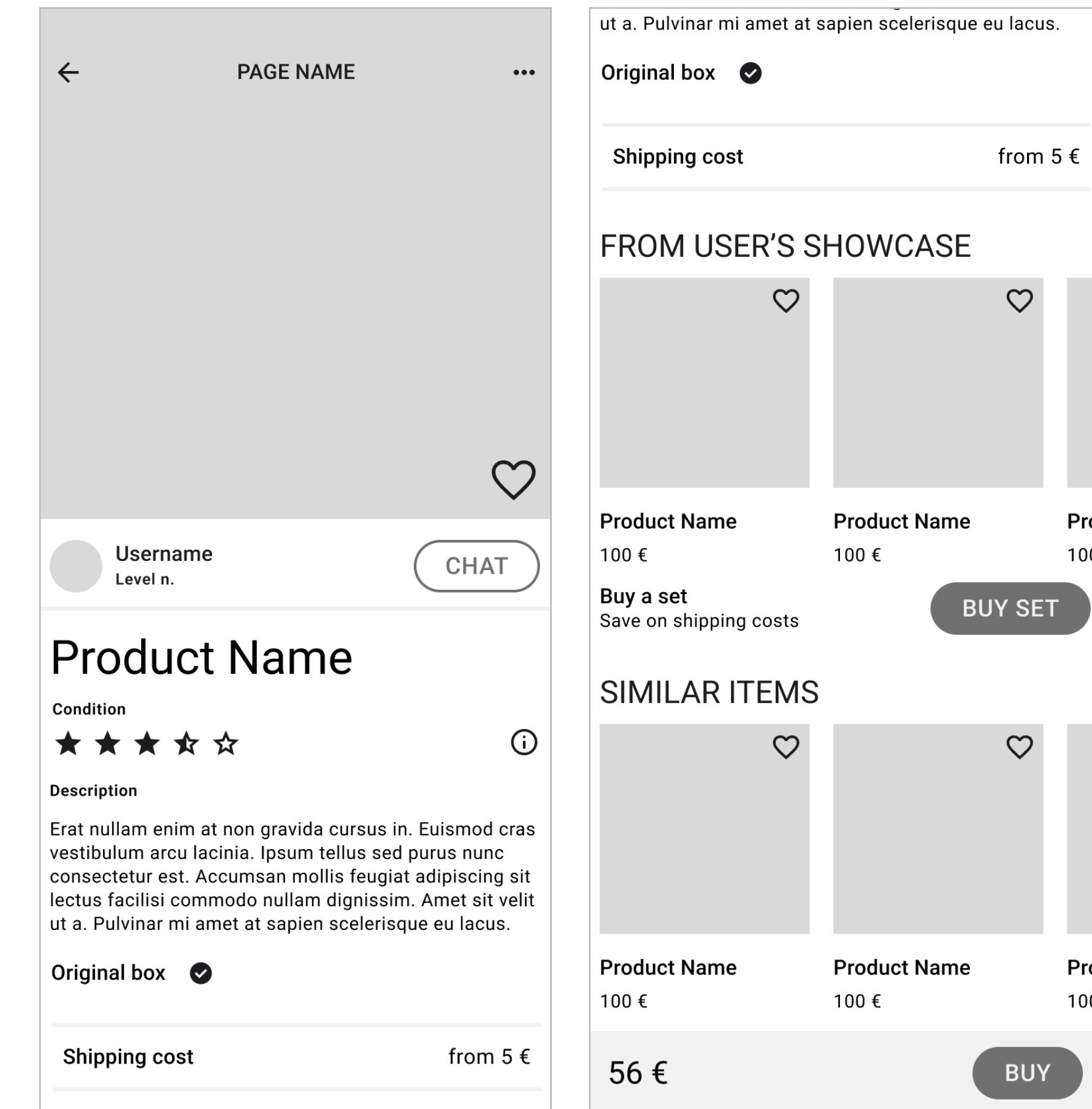
The textual description of the item follows. Initially, we see the name of the product, followed by its conditions. This feature is only displayed when an item has been reviewed by an expert. From our analysis of existing items, we found that information related to some products was often not documented. Therefore, we have enabled users to tap on the information ("I") to view the expert who provided the evaluation and the methodology used to test the item's condition.

During our research, we identified two primary characteristics of this particular item: whether the original packaging still exists and if the item is still functional. In our example, the item comes with the original box, so the "original box" option is checked.

After the shipping costs, we present two selections of other items. If the seller has other items for sale, they will be displayed in the "From the user's showcase" section. Vinted already offers the option to purchase multiple items from the same seller to reduce shipping costs and receive discounts. This feature encourages sellers to add more items to the system and enables buyers to purchase more.

In the final section, we present a selection of related items sold by other users.

We have designed this screen to emphasise the "buy" action, with the navbar displaying only the price of the item and a button to purchase it. In case the user does not want to buy, they can always use the top left arrow to return to the previous screen.

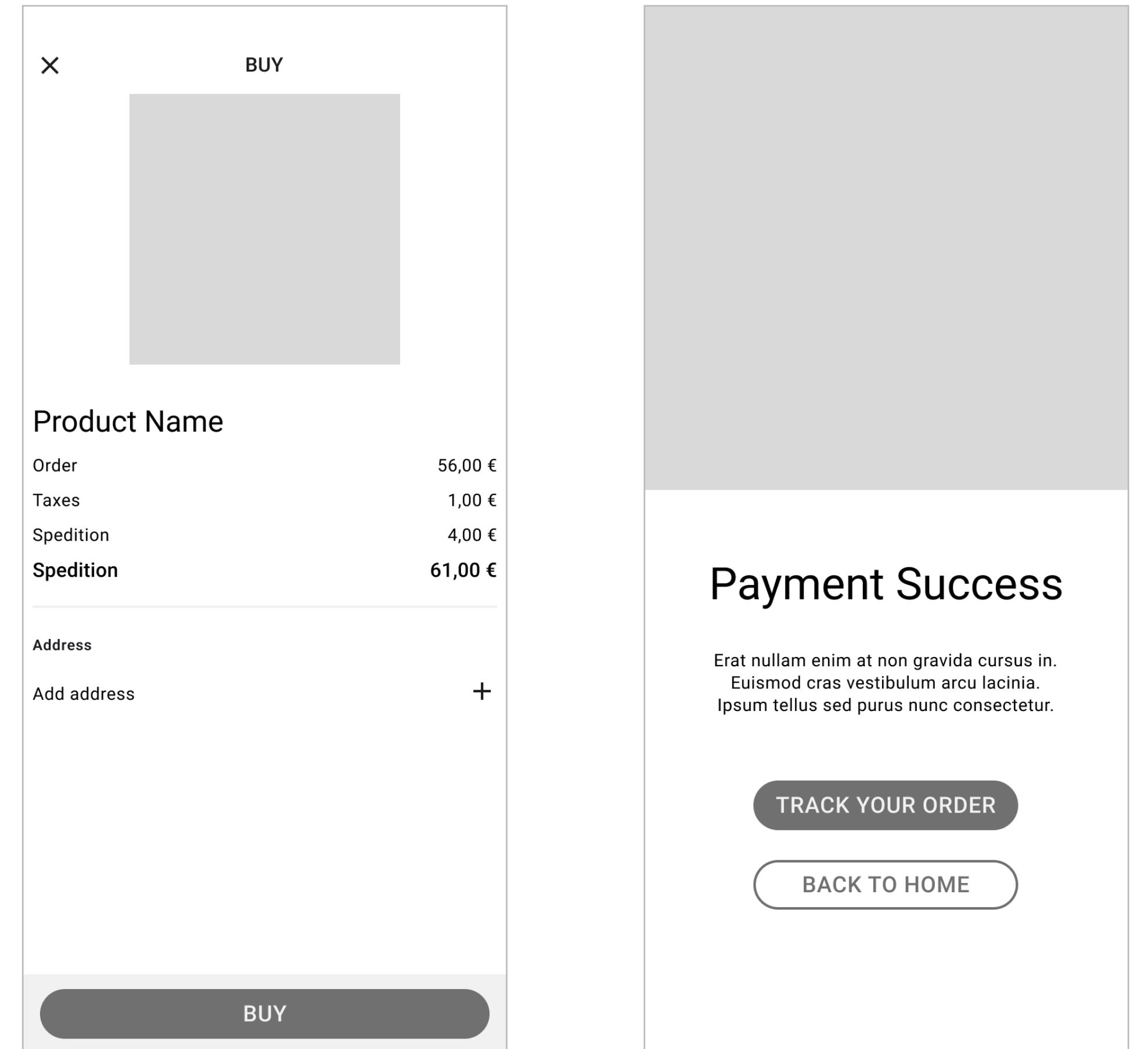


## Buy

When a user taps on the "Buy" button on the item details page, they are directed to a new screen where the total cost of the purchase is displayed. Here, they can confirm or change the shipping address. The navigation bar now prominently features the "Buy" button, as this is the main action that we want to emphasise with our design.

## Payment Success

Congratulations! You have successfully purchased your vintage console. It is important to notify the user of the success of their action, so we will display a cheerful image and a message to celebrate their purchase. The user can choose to return to the home page or track their order status using the second button, which is designed to help them understand where they can check the status of their order.

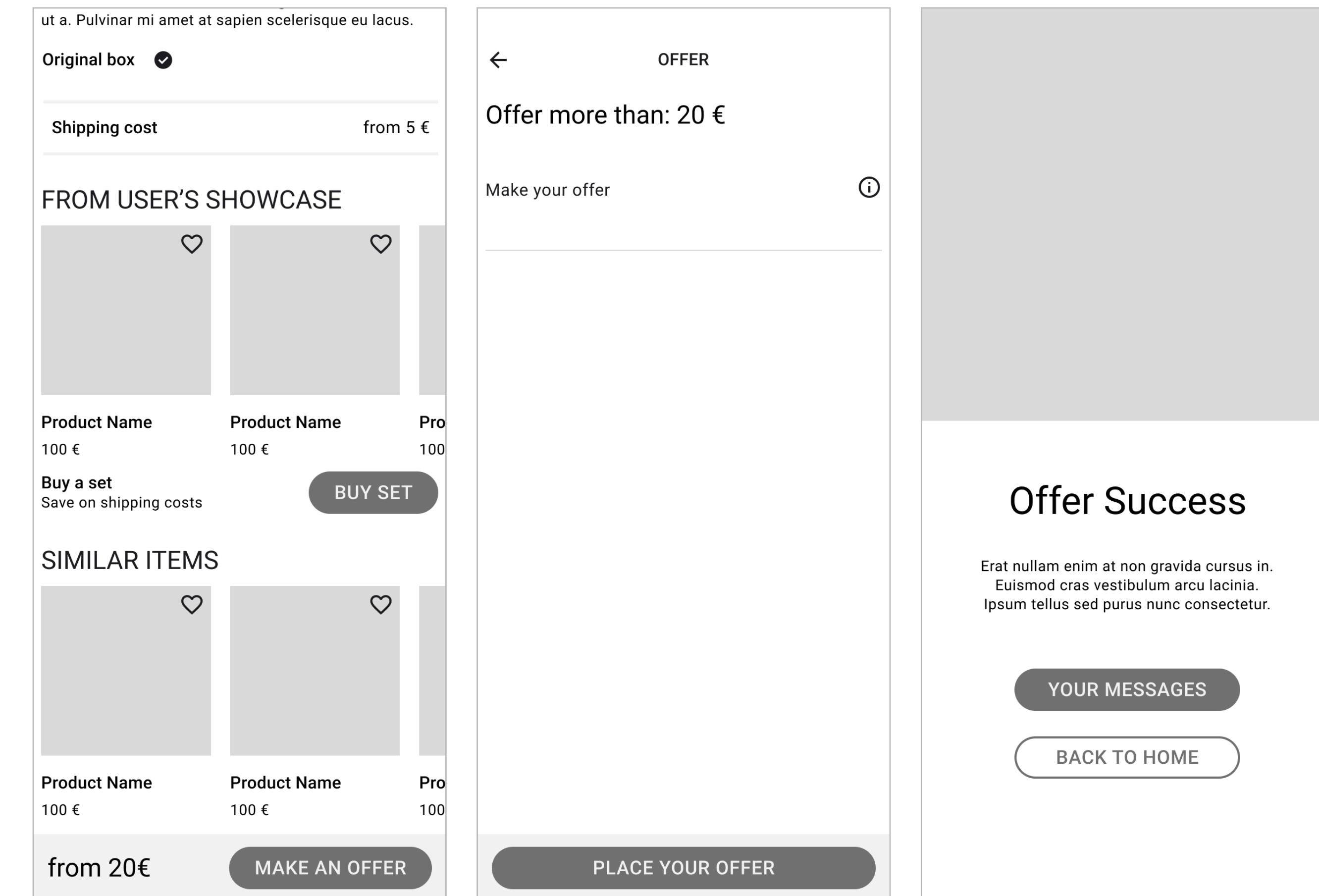


## Make an offer

In our system, we have decided to maintain the seller's ability to accept offers instead of setting a fixed price for items. The item details page will remain the same, with the only difference being the presence of a bottom bar that displays the starting price for making offers. If the user presses the "Make an Offer" button, they will be directed to a screen where they can enter the price they are willing to offer for the item.

## Offer Success

As with the buying action, it is important to notify the user of the status of their offer. In this case, the offer must be accepted by the seller, and since the communication will be received in the messages section, the two buttons on this screen will give the user the option to return to the home page or to view a copy of the offer they made in the messages section.



## Selling an item

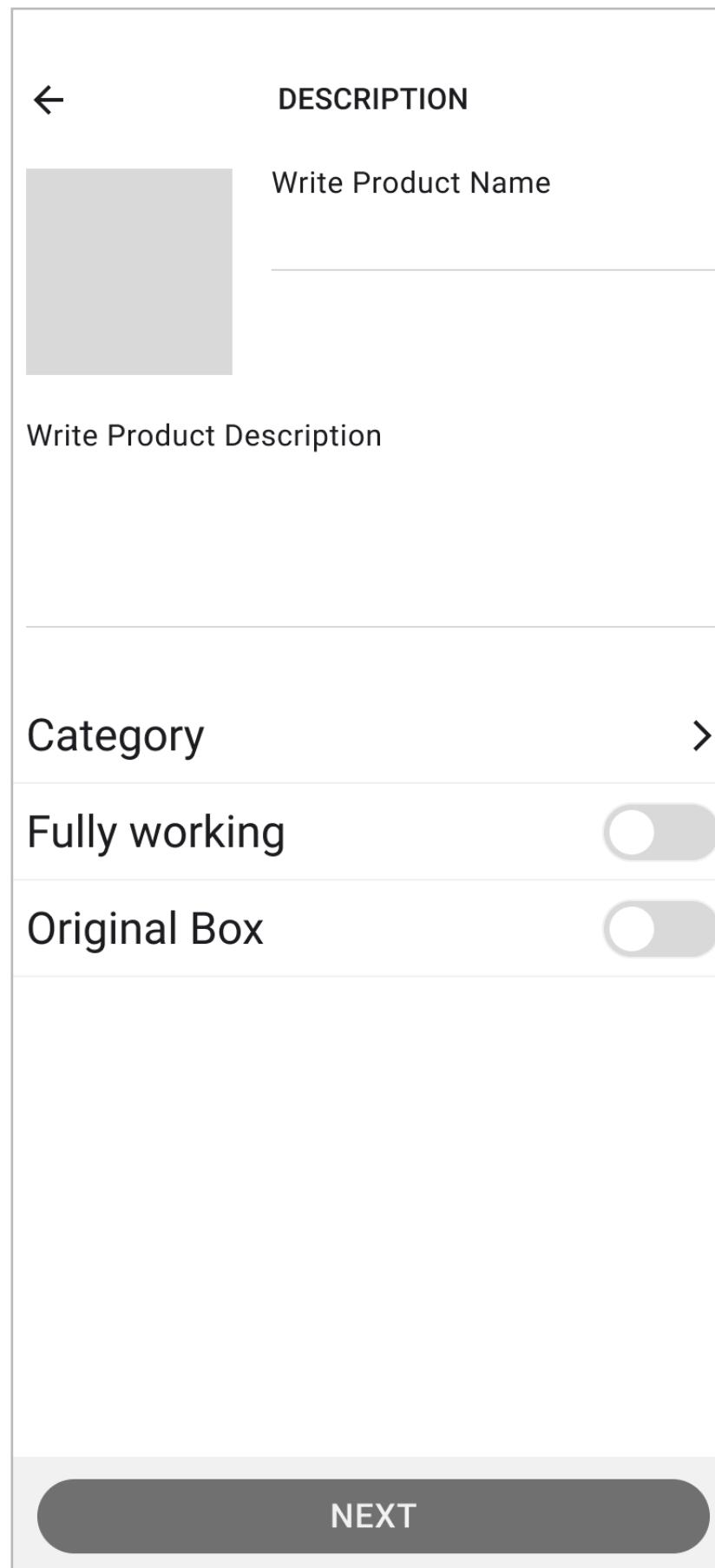
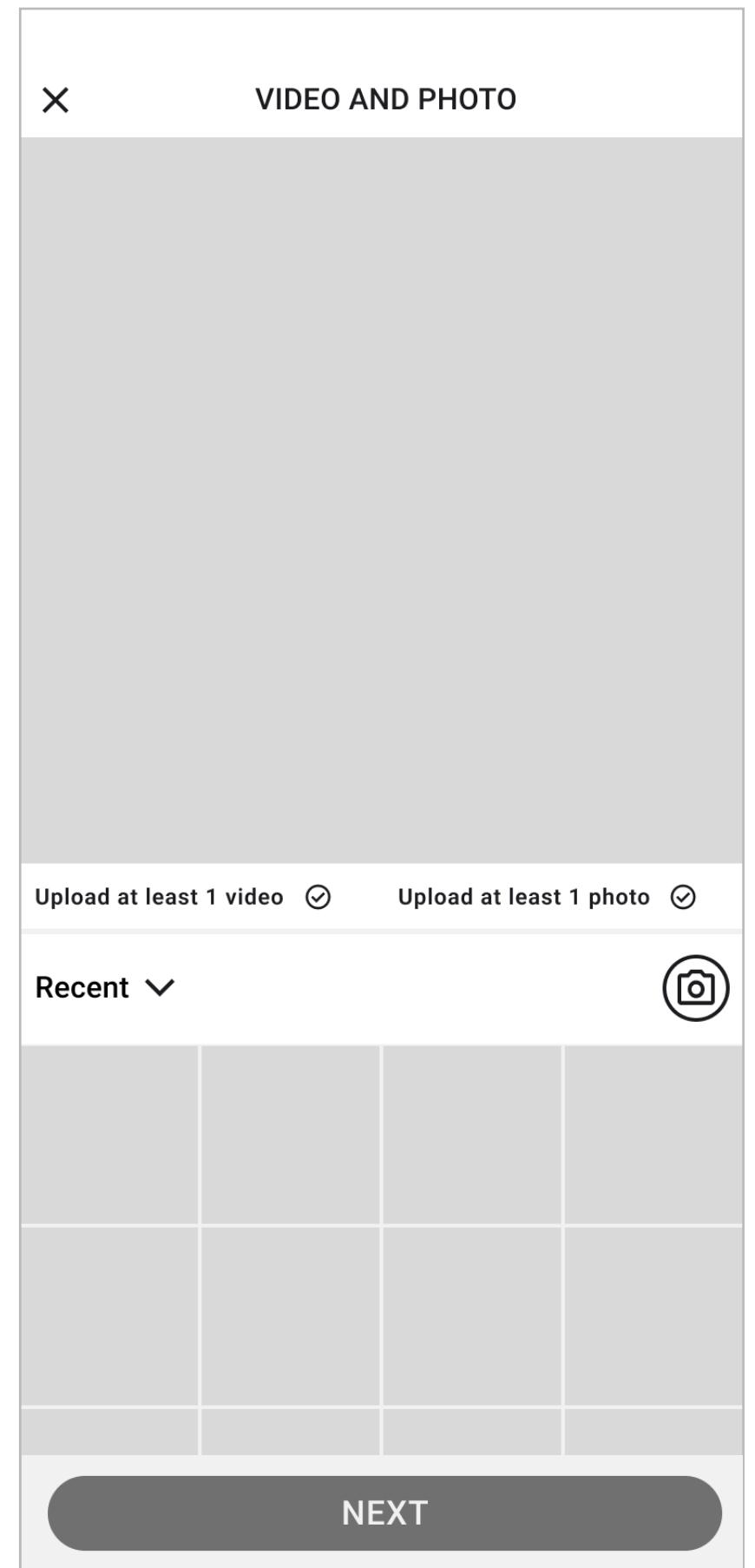
To start selling an item on our platform, the user needs to tap on the "Add" icon in the bottom navigation bar. Before proceeding, certain mandatory actions need to be completed by the user. We guide them in the right direction by disabling the "Next" button located in the bottom bar until all required actions are performed correctly.

### Video and photo requirements

At Played, we require the user to upload at least one video and one picture when selling an item. Users can also add up to ten additional documents. We discovered that presenting a video of the item is crucial for establishing trust with potential buyers and reducing the possibility of scams. We always keep our users' needs in mind, and this requirement is one of them.

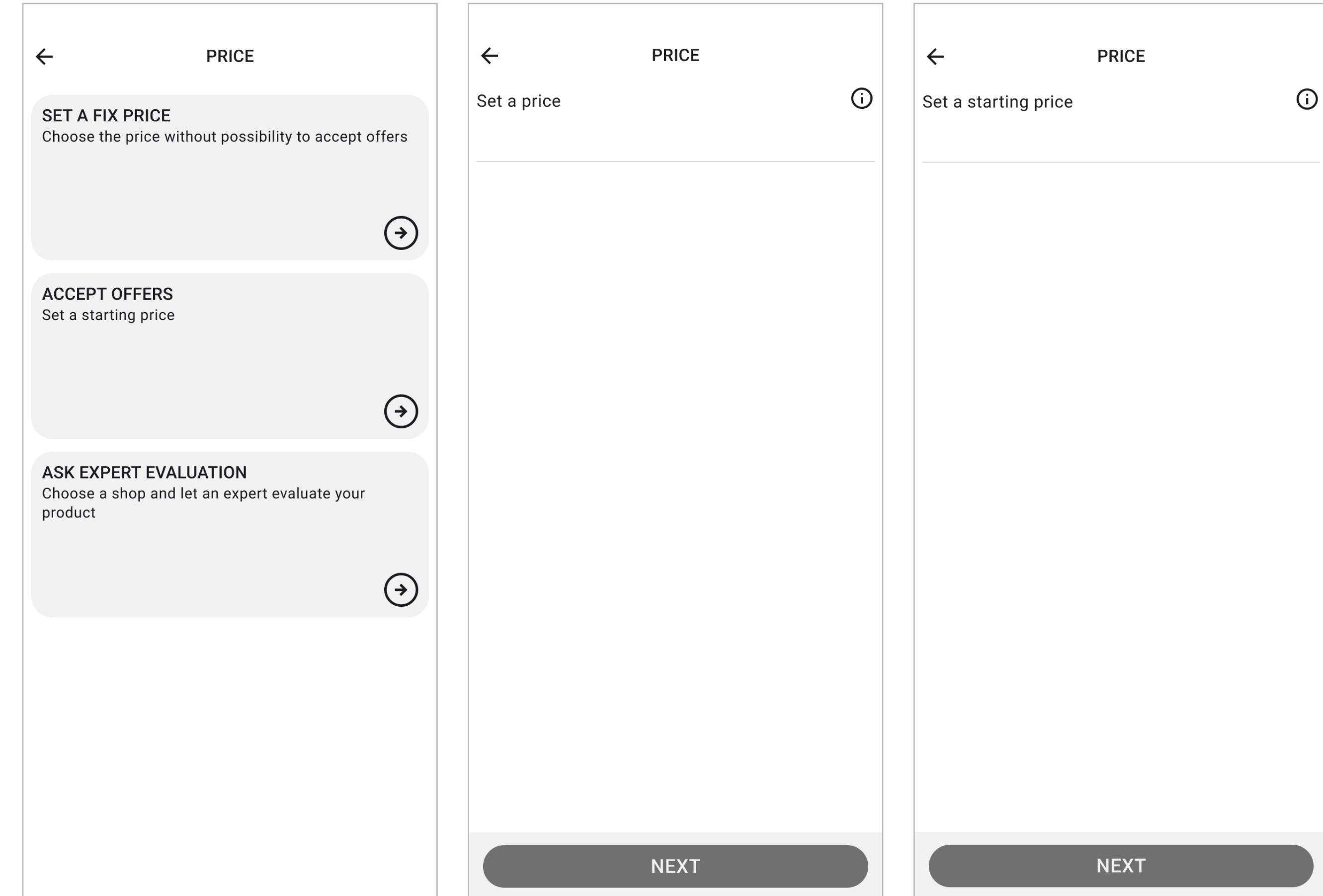
### Description

After uploading the video and photos, the user needs to provide a title, a short description, and select a category for the item. The user must also confirm whether the item is still functioning and/or if it comes with the original packaging. We followed the existing Vinted design for certain aspects of this step to make users of the parent application feel more comfortable.



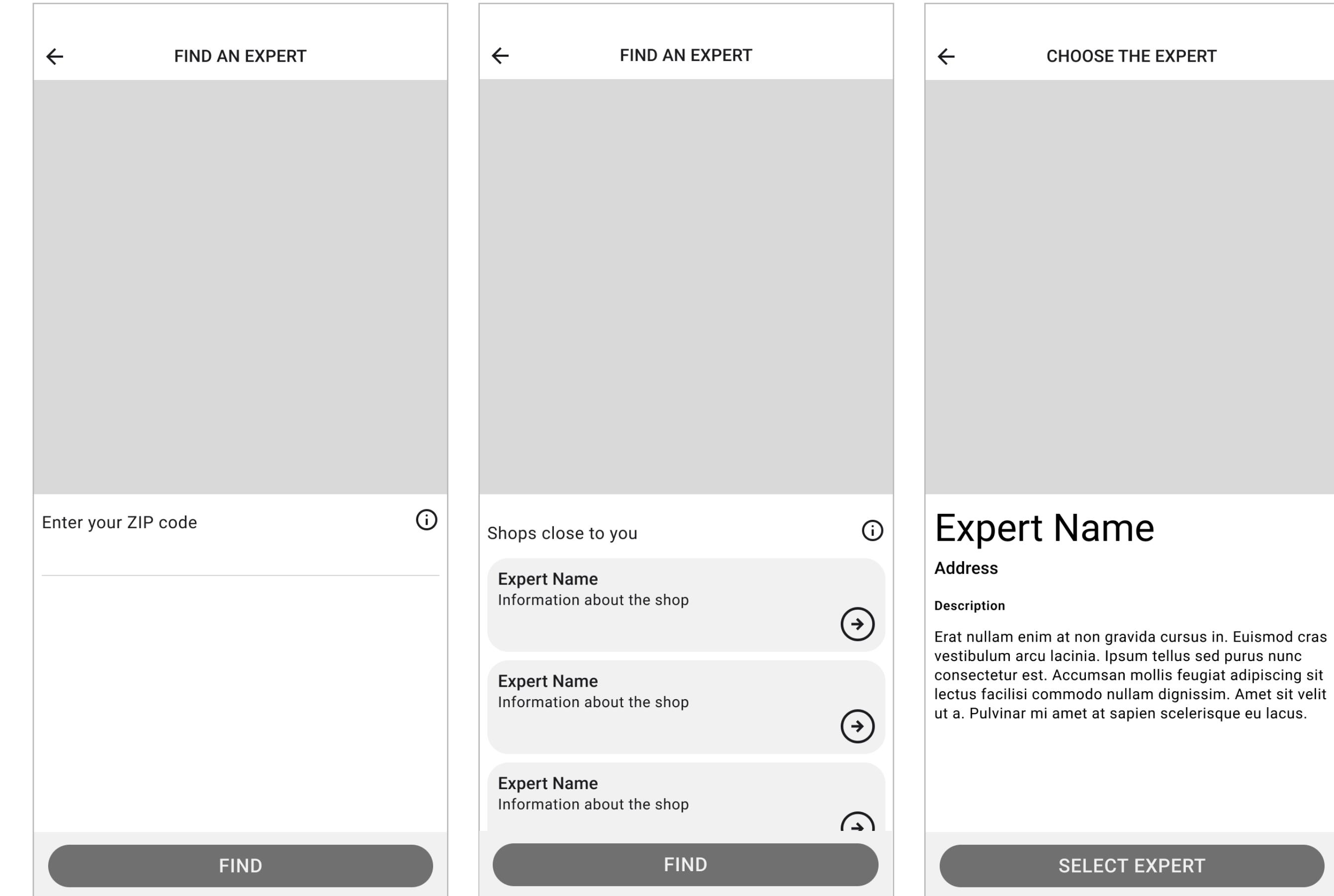
## Pricing options

The next step is setting a price for the item. We offer three options: "set a fixed price," "accept offers," or "ask expert evaluation." If the user selects the first or second option, they will be prompted to enter a fixed price or a starting price for offers, respectively. If they choose to ask for an expert evaluation, they will be guided to locate and select an expert. In the case of the fixed price and the offers, after entering the digits and pressing next, a success message will appear, confirming the completion of the procedure. While for the expert evaluation, the user will be guided to complete the task.



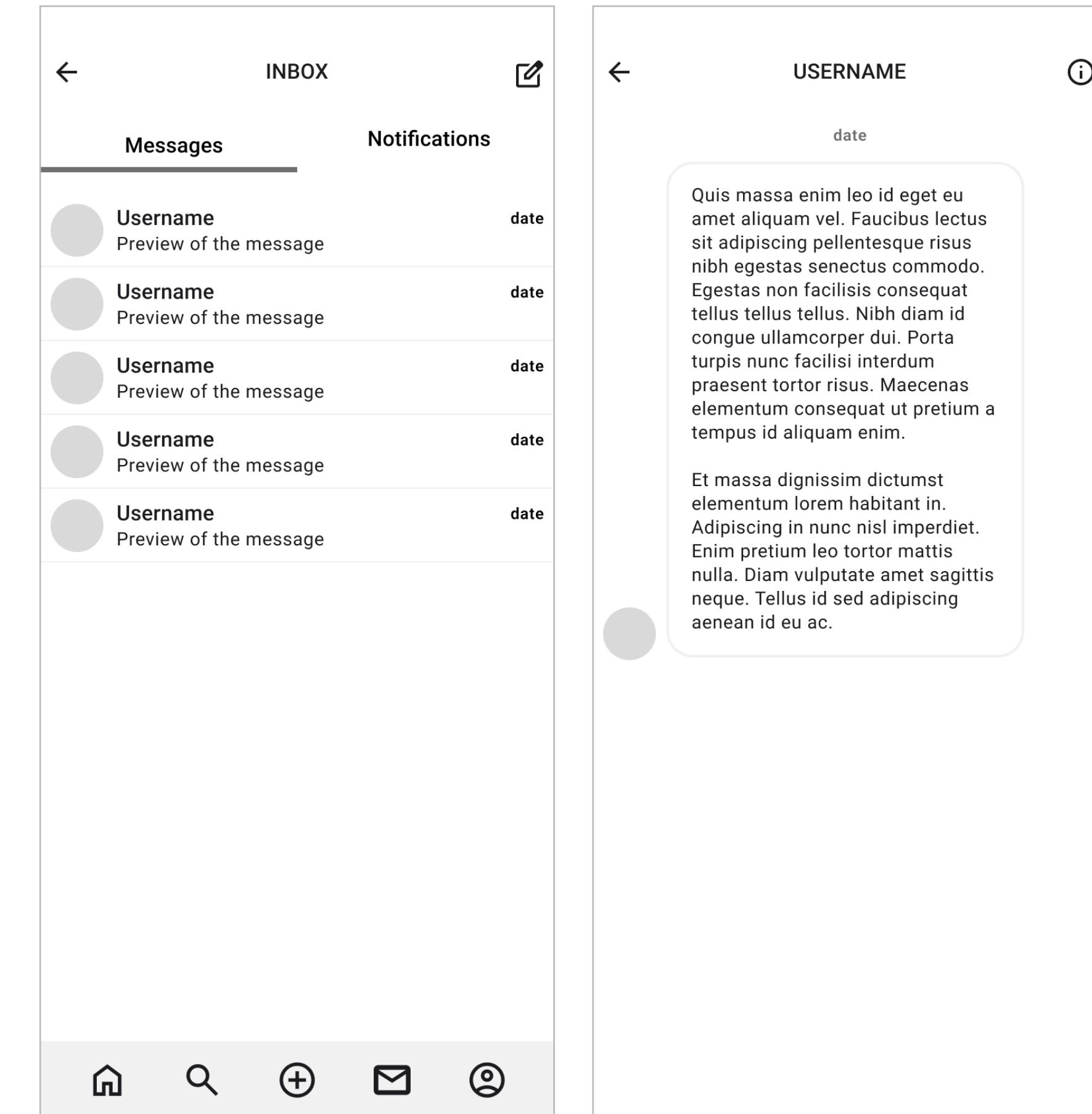
## Find an expert

Additional wireframes were necessary for this procedure. If the user selects the third pricing option, they will need to locate the nearest shop or expert. We will use a mapping system to present the geolocation of the nearest shops on a navigable map. After selecting a shop/expert from the list, the metadata of the expert will be displayed. Here, the user can confirm their selection and review their request before sending it. Since a new communication channel between the user and the expert will be opened in their messages section, the success screen will offer the option to either open the newly started conversation or return to the home screen. The user will be notified whether the request was accepted or denied by the expert, and in case of a positive response, they can communicate and settle everything between them through messages.



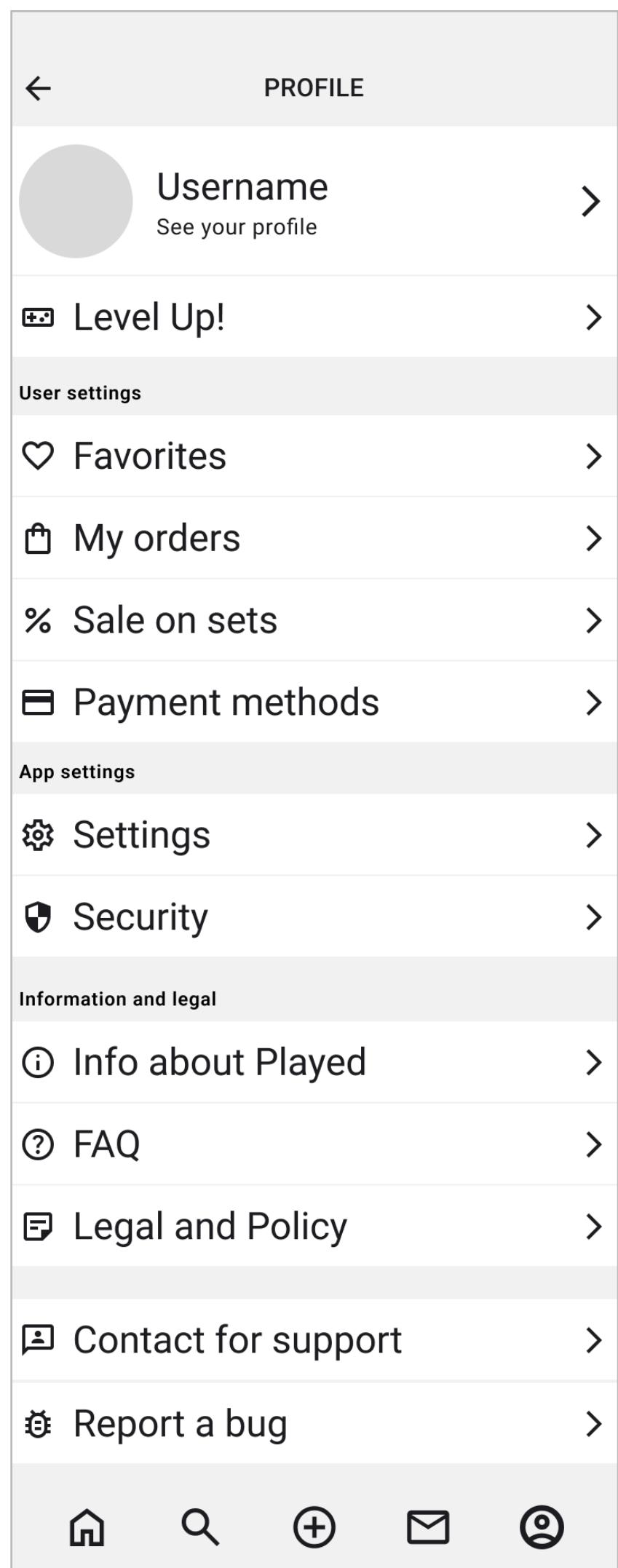
## Messages and notifications

One of the main sections accessible from the bottom navigation bar is the inbox for messages and notifications. As we mentioned earlier, direct communication between users is a key aspect of this market segmentation. We found that this feature was already well-implemented in Vinted, so we decided to keep the section similar.



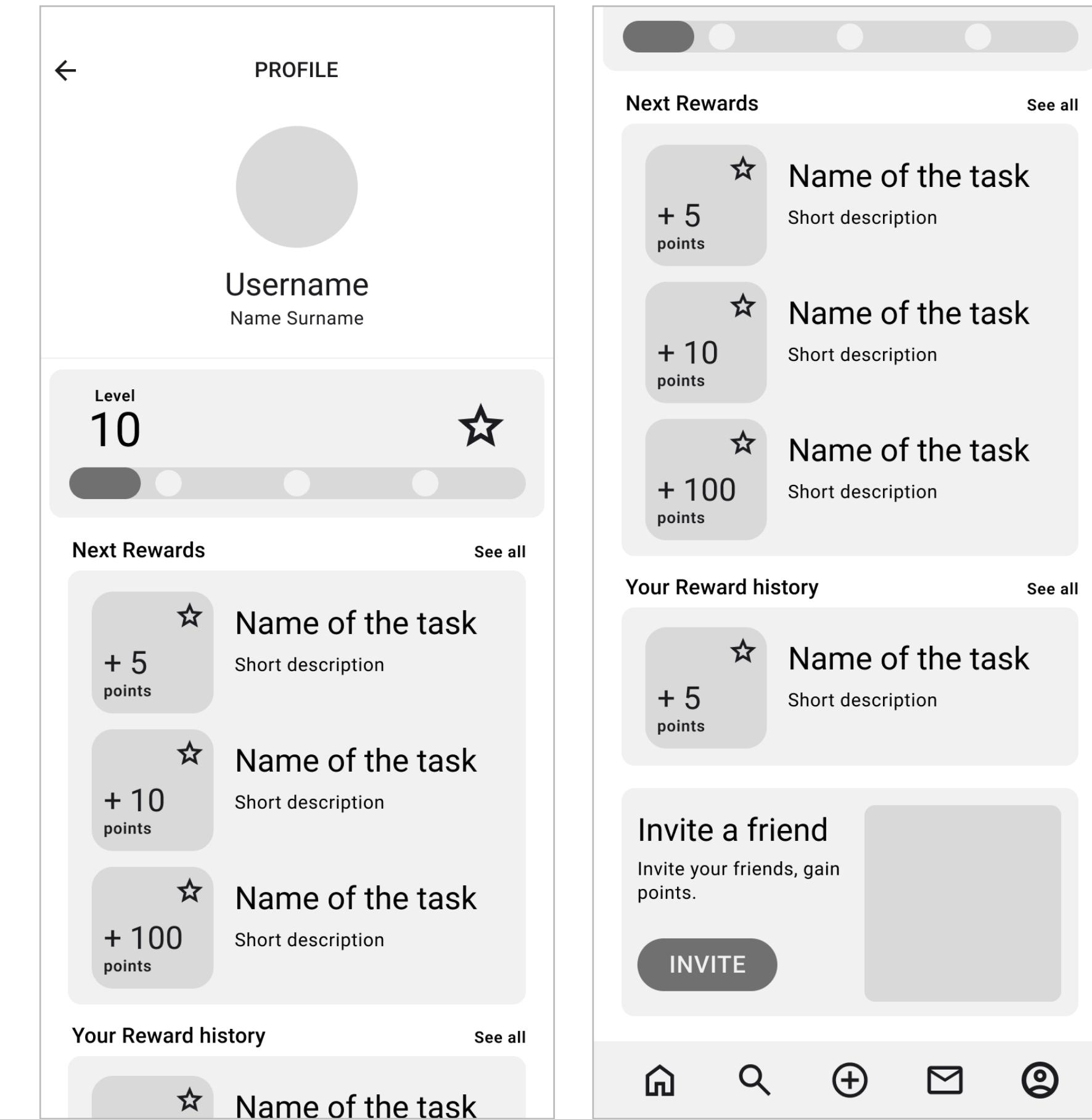
## Profile

This section is dedicated to user and system settings. Here, users have the ability to change their personal information, such as their profile image, username, email, and telephone number, by tapping on the first tab. From the same screen, in the "User Settings" sub-section, users can also check their favourites, and the status of their orders, set discounts for customers who buy more than one product, and manage their payment methods. The "App Settings" subsection contains general settings for the application's functionalities and security settings. In the "Information and Legal" section, users can find documentation about how the system functions and its legal aspects. Lastly, users can contact support and report bugs in the last section.



## Level Up!

We implemented a gamification system to stimulate users to explore the application's functionality and introduce a rating system to identify more experienced users. This gamification strategy also opens the possibility of introducing a reward system that can benefit both the user and the expert. We found it interesting to design a reward system where points can be translated into discounts in partnership with expert shops.



### Task completed

It's essential to notify users of a mobile application when an action, such as buying, is complete. This notification reassures users that their request has been successfully processed and eliminates any confusion or doubt about the status of their purchase. Furthermore, prompt notifications provide a sense of satisfaction and convenience to users, making them more likely to return to the application in the future. Effective communication with users is essential to building trust and maintaining a positive user experience, which ultimately leads to increased engagement and customer loyalty. Therefore, sending timely notifications when a user completes an action is an essential aspect of a successful mobile application.

The image displays three mobile application success screens, each featuring a large gray header section and a white content section below. The first screen, 'Item Added Success', contains the text 'Item Added Success' and a message placeholder 'Erat nullam enim at non gravida cursus in. Euismod cras vestibulum arcu lacinia. Ipsum tellus sed purus nunc consectetur.' It includes two buttons: 'SEE YOUR PROFILE' and 'BACK TO HOME'. The second screen, 'Payment Success', contains the text 'Payment Success' and a similar message placeholder. It includes two buttons: 'TRACK YOUR ORDER' and 'BACK TO HOME'. The third screen, 'Review Asked Success', contains the text 'Review Asked Success' and a similar message placeholder. It includes two buttons: 'SEE MESSAGES' and 'BACK TO HOME'.

Item Added Success

Erat nullam enim at non gravida cursus in.  
Euismod cras vestibulum arcu lacinia.  
Ipsum tellus sed purus nunc consectetur.

SEE YOUR PROFILE

BACK TO HOME

Payment Success

Erat nullam enim at non gravida cursus in.  
Euismod cras vestibulum arcu lacinia.  
Ipsum tellus sed purus nunc consectetur.

TRACK YOUR ORDER

BACK TO HOME

Review Asked Success

Erat nullam enim at non gravida cursus in.  
Euismod cras vestibulum arcu lacinia.  
Ipsum tellus sed purus nunc consectetur.

SEE MESSAGES

BACK TO HOME

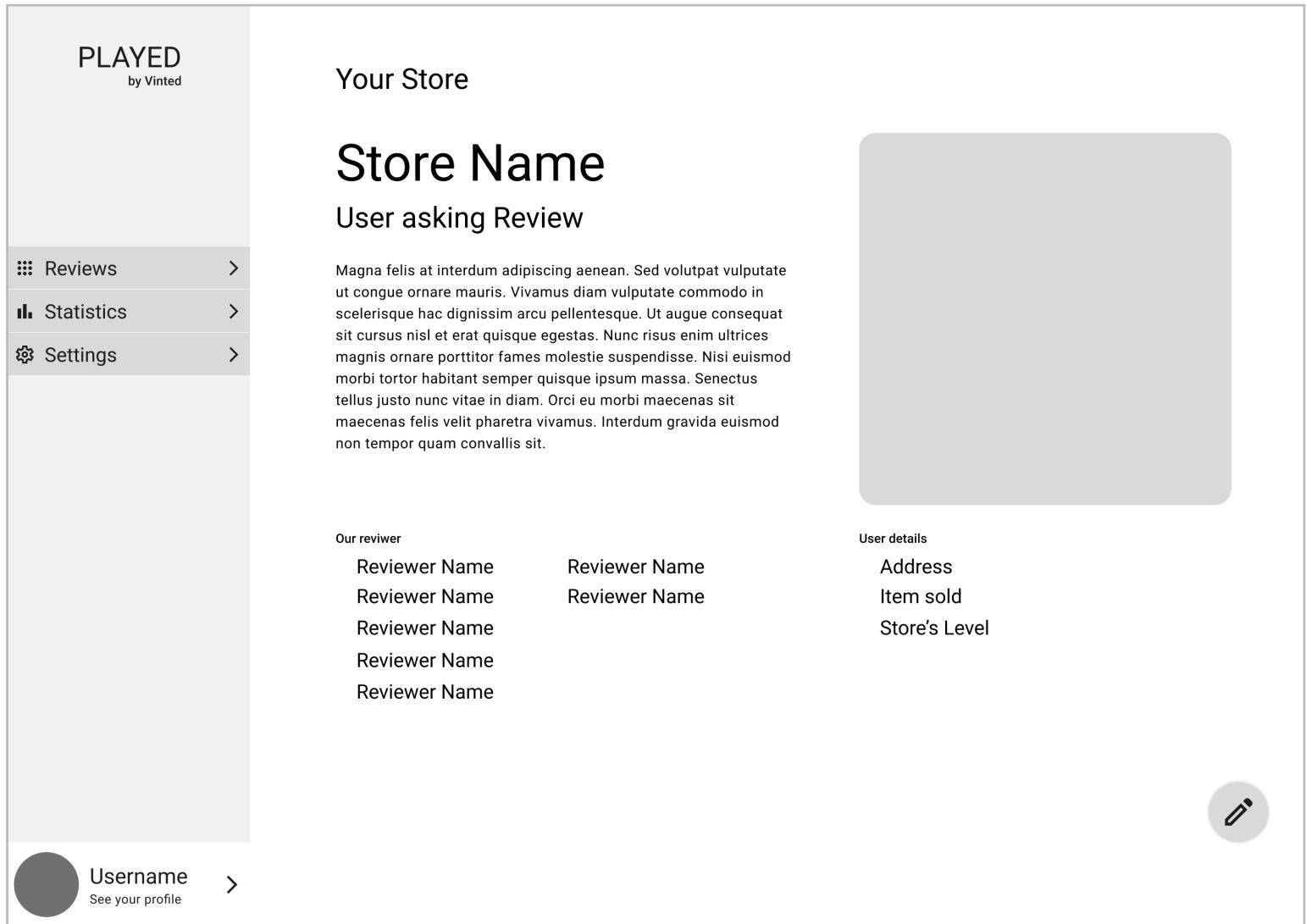
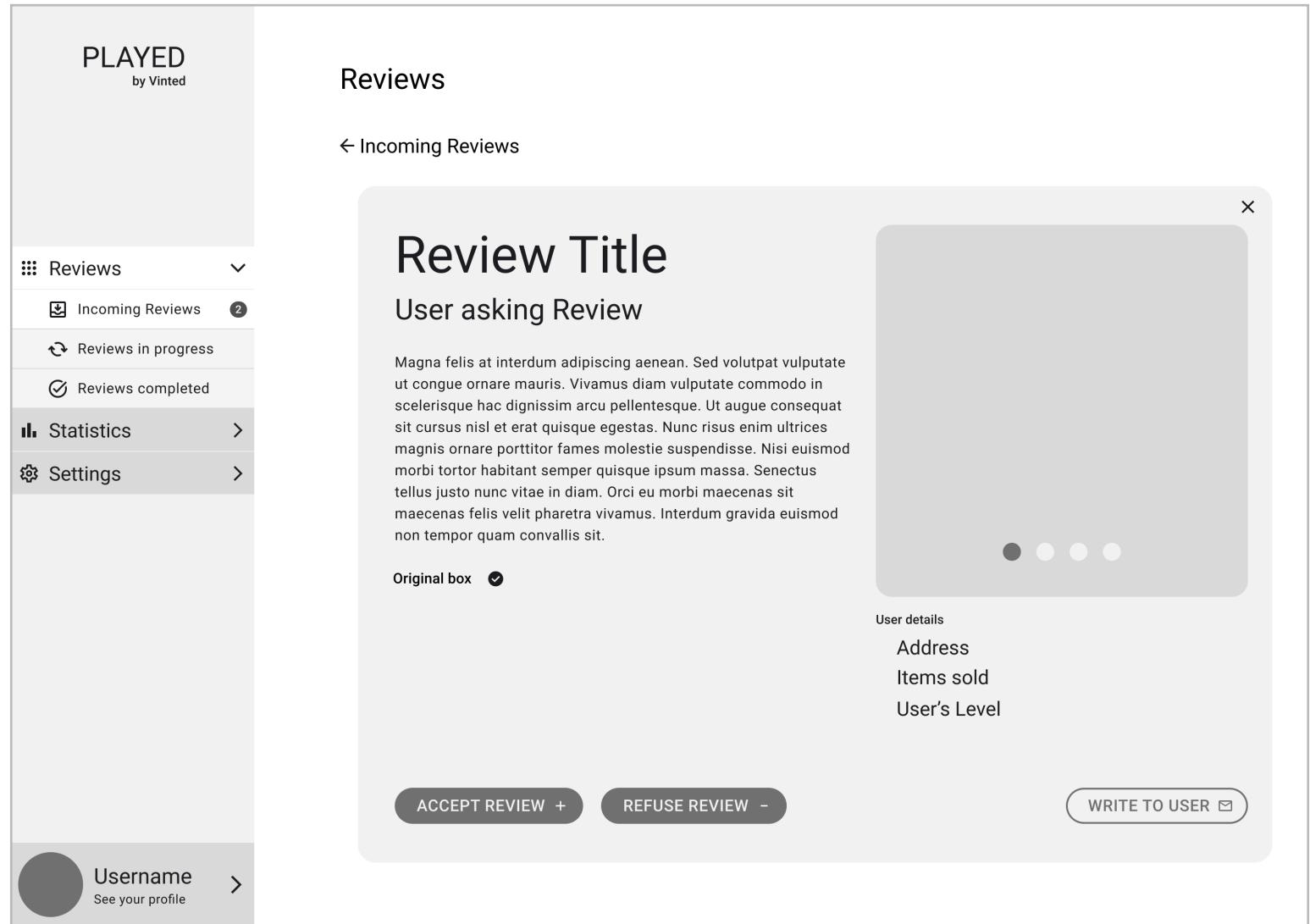
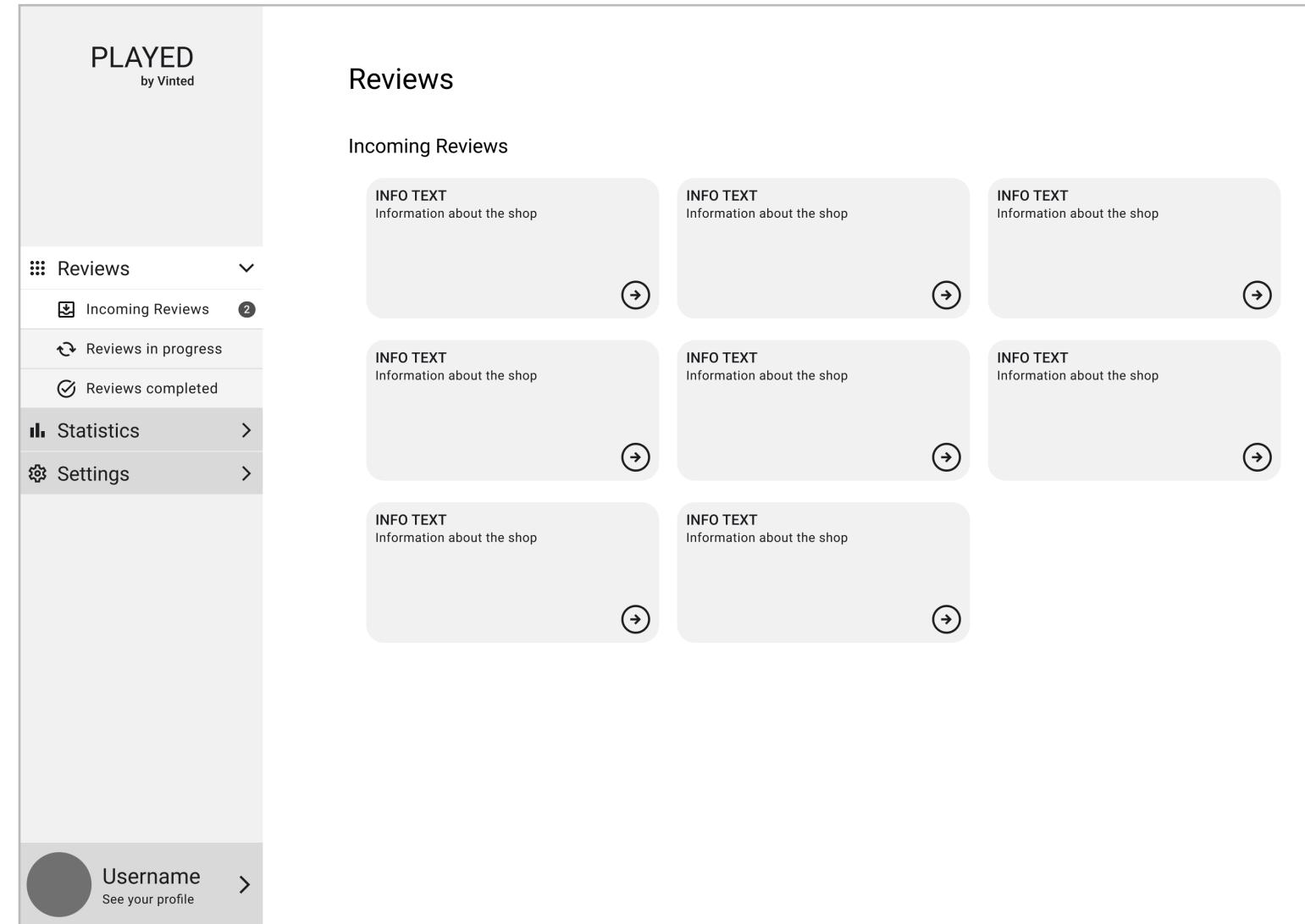
## Expert Dashboard

We have designed a desktop-oriented dashboard specifically for experts to manage user review requests. This section of the application is intended for use in a working environment and is better suited to desktop devices rather than mobile devices. The opening screen presents a summary of all reviews, divided into three categories that reflect the status of each review: "Incoming reviews" for new requests that have not yet been accepted or declined, "Reviews in progress" for accepted but not yet completed reviews, and "Reviews completed" for finished reviews.

Experts can analyse incoming requests and decide whether to proceed with an evaluation or refuse it. The evaluation process can be guided by different reasons, such as an overload of requests, items that do not conform to the platform's policies, or other reasons. It is also important to communicate the status of the request and provide the option to open a direct communication channel between the sender and the receiver. In the first case, automated messages will notify the user when a request is accepted, rejected, in progress, or complete. In the second case, the expert can ask for or provide additional information or motivation as necessary. These messages will be stored in the "Messages" section of the end-user mobile application.

The dashboard interface is titled "PLAYED by Vinted". On the left, a sidebar menu includes "Reviews" (selected), "Incoming Reviews" (with a count of 2), "Reviews in progress", "Reviews completed", "Statistics", and "Settings". At the bottom of the sidebar is a "Username" placeholder with a "See your profile" link. The main content area is titled "Reviews" and contains three sections: "Incoming Reviews", "Reviews in progress", and "Reviews completed", each displaying three cards for different products.

Section	Product Name	Information about the product	Action
Incoming Reviews	Product Name	Information about the product	→
	Product Name	Information about the product	→
	Product Name	Information about the product	→
Reviews in progress	Product Name	Information about the product	→
	Product Name	Information about the product	→
	Product Name	Information about the product	→
Reviews completed	Product Name	Information about the product	→
	Product Name	Information about the product	→
	Product Name	Information about the product	→



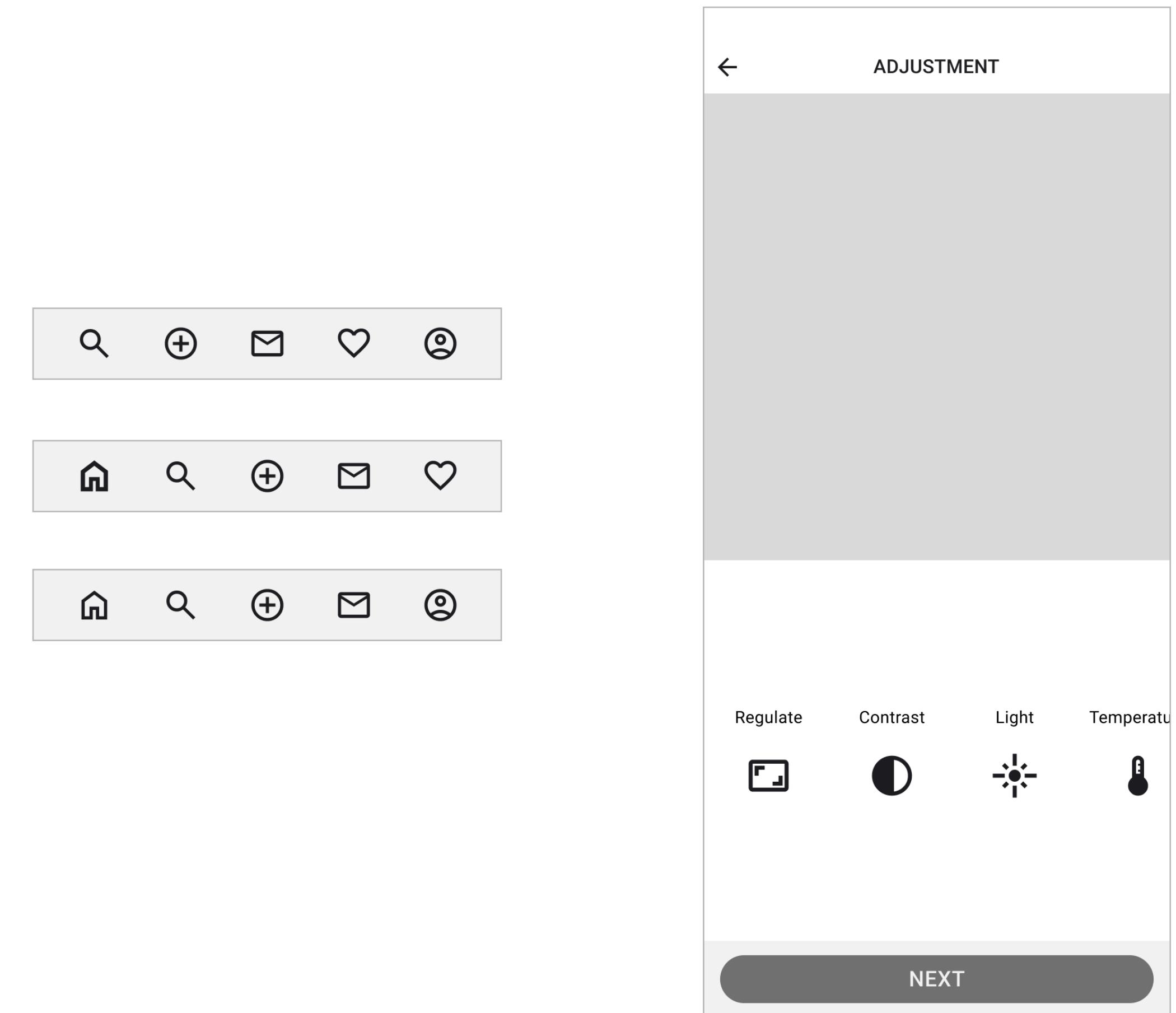
## 4.7 Before and After

### Navigation bar

The system's design evolved during testing. One improvement we made from the storyboard to the wireframe was reorganising the bottom navigation bar. Initially, we thought it would be interesting to include favourites in the navigation bar, but after testing, we found that users were unable to return to the home screen easily. The home screen acts as a safe space where users can receive suggestions related to the items they uploaded.

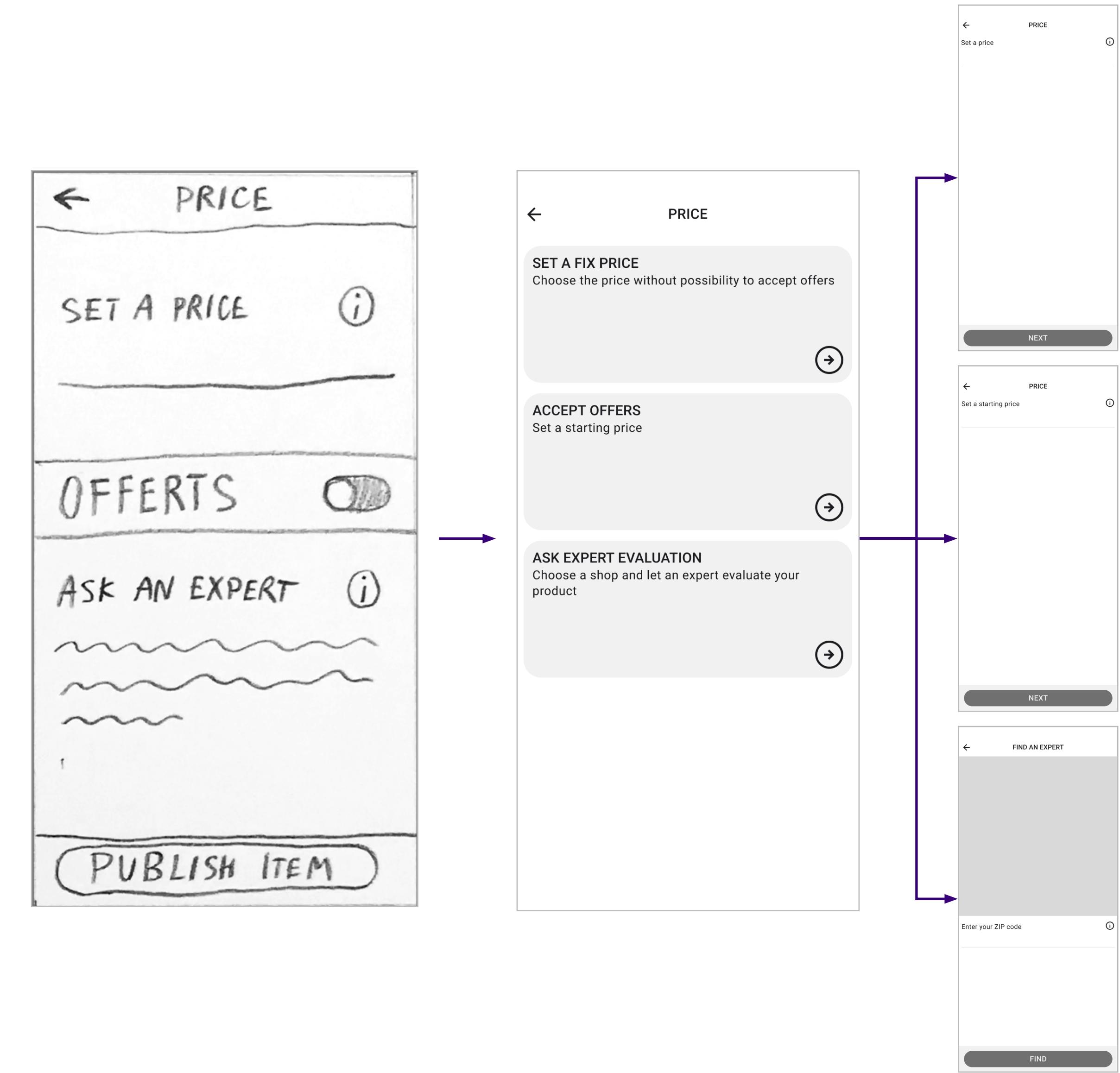
### Image modification

Initially, we thought that giving users the ability to edit and modify their images would be a plus, but we found out during our tests that this step could be used to alter the real aspect of the object, so we decided to simplify the already detailed selling procedure. This step was supposed to be shown as the second one to users after they selected photos or videos from their mobile gallery.



## Setting price

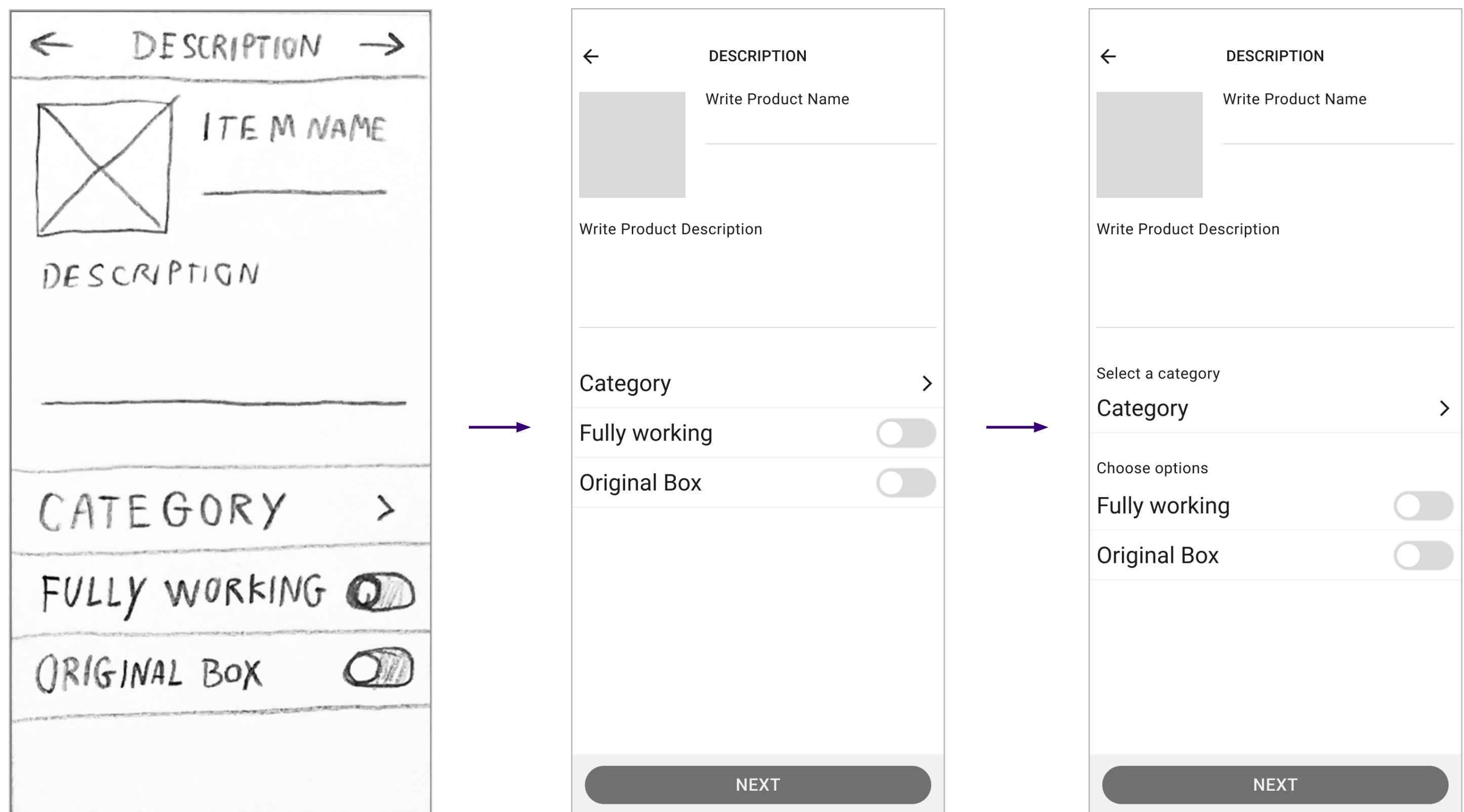
A key improvement we made to the system was to make the price-setting process clearer and smoother. Initially, we tried to organise all the possible choices on one screen, but in the first round of testing, we found that this organisation made it easy for users to get lost. The improved design takes into consideration that all three options are equally important and require different paths to be followed.



## Selling procedure navigation and minor corrections

In terms of the selling procedure, our initial design included a top navigation arrow. However, we soon discovered that not all users were clear about the need to complete required tasks before moving on to the next step. As a result, we decided to switch from the top navigation arrow to a large button in the bottom navigation bar. This button is disabled until the required tasks are successfully completed.

Furthermore, we found that some screens could benefit from improved readability through the use of textual signifiers. For instance, this could be applied to the item description and user profile. By implementing such signifiers, we aim to make the content clearer and more easily understandable for users.



# 5. Evaluation of the design

In this paragraph we provide an evaluation of our design proposal. The evaluation is divided into two phases: the **inspection**, in which we operate an heuristic analysis (using the guidelines listed in 2.1.1) and the **user testing**, in which we allow some users to provide their opinion about our idea, relying on the discount usability testing method.

## 5.1 Inspection

We choose to reuse the same guidelines that we applied to evaluate the already existing systems for self-analysing each part of our proposal.

### Home

The Home is characterised by a finite-scroll page that highlights the recent liked items, the feed of the user, some shortcuts for specific brands and the possibility to search through already reviewed items. We found the home page compliant with Nielsen's first principle because the user is immediately informed about what is going on in his/her account. It also keeps a familiar and natural order of appearance (2<sup>nd</sup> principle) and the navigation bar is consistent with industry conventions (4<sup>th</sup> and 6<sup>th</sup> principles). All the other principles seem to be applied too.

### Search

The Search section is minimalist but accurate (Nielsen's 9<sup>th</sup> principle), it allows the user to identify immediately what he needs (UK's 9<sup>th</sup> guideline). It also allows the user to always go back to the previous search or to the home (through the fixed navigation bar).

### Sell

The Sell page is designed following Nielsen's 4<sup>th</sup>, 5<sup>th</sup> and 7<sup>th</sup> principles, because the user is obliged to follow every step in order to sell an item, so it prevents errors, it is clear and easy to understand and facilitates the whole process.

### Message

The Message page is splitted in two major sections: the first lists all the conversation between the user and any buyer or seller; the second one is dedicated to the notifications that the application might send to the user. It is minimalist and well-organised and it seems to respect all the principles.

### Profile

The Profile page is characterised by a minimalist design (Nielsen's 1<sup>st</sup> principle), well organised, with an extensive documentation about the application (10<sup>th</sup> principle). It also applies the 7<sup>th</sup> UK's Government Principle, because it is designed for people who like gaming and so it provides a little "built-in game".

### Expert Dashboard

For what concerns the Expert Dashboard, the simplicity of the web application is compliant with the first and eighth Nielsen's principles. The clear divisions between the different types of reviews (incoming, in progress, completed) allows the user to organise his/her works and to always know which items he/she is looking at (7<sup>th</sup> principle). The presence of a statistics section meets the 3<sup>rd</sup> UK's Government guideline.

## 5.2 User testing

We now perform again some tests on real users to check if the inspection phase finds a counterpart in real users too, or if there are undiscovered problems that need to be fixed. With the help of real users we aim at having concrete feedback and an useful insight on the functioning of our application, being also aware of the challenges connected to real users (different behaviours, different attitudes, different knowledge, etc.).

### 5.2.1 Testing process

Before starting with the real test, we perform some pilot tests, one for each team member, with the help of a working prototype of the PLAYED application. This is an instrument for us to understand if everything works as planned, if we forgot to implement something and if the connection between the various wireframes is working or not.

Again, we have decided to perform a Discount Usability Testing evaluating the same action of the tests in 2.2:

1. **Sell an item.**
2. **Search for an item to buy.**
3. **Buyer-seller relationship.**
4. **Purchase a product.**

We perform again a Thinking Aloud method, asking the participants to talk about what they are doing and thinking while performing the actions.

We evaluate the same metrics: **success** in the completion of the task, whether with or without help from the assistant; **time** for evaluating the best approach between the two services; **efficiency** in the execution of the task and the possible mistakes of the user; **satisfaction** of the user after the completion of a task. We evaluate the performance by applying also the System Usability Scale, with a 5 Levels Likert Scale.

### 5.2.2 Analysis of subjective and objective data - results

We have performed Usability Testing on the same 4 users of 2.2: **Francesco, Antonio, Michela** and **Mario**.

The context of the test is again a private living room. First of all, the assistant describes the PLAYED service, upon which the test is performed and the tasks that the participants are required to perform. She also encourages the participants to ask questions, if they have any, but they will not receive any answer, as they already know. They perform the actions both on the wireframes of the PLAYED application, and on the working prototype of the service.

sus	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.					
2. I found the system unnecessarily complex.					
3. I thought the system was easy to use.					
4. I think that I would need the support of a technical person to be able to use this system.					
5. I found the various functions in this system were well integrated.					
6. I thought there was too much inconsistency in this system.					
7. I would imagine that most people would learn to use this system very quickly.					
8. I found the system very cumbersome to use.					
9. I felt very confident using the system.					
10. I needed to learn a lot of things before I could get going with this system					

[https://www.researchgate.net/publication/228593520\\_SUS\\_A\\_quick\\_and\\_dirty\\_usability\\_scale](https://www.researchgate.net/publication/228593520_SUS_A_quick_and_dirty_usability_scale) paper ufficiale delle guidelines su SUS

## Test Results for Francesco

Task	Success	Time	Efficiency	Satisfaction
PLAYED 1.	Success without help	3 minutes	high	very high, happy about the customisation of the offer
PLAYED 2.	Success without help	1 minute	high	high, various filtering possibilities
PLAYED 3.	Success without help	2 minutes	high	very high, useful the messaging section and the level of the user (reliability)
PLAYED 4.	Success without help	5 minutes	high	high, happy about the possibility to buy some items reviewed by an expert

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.				x	
2. I found the system unnecessarily complex.	x				
3. I thought the system was easy to use.				x	
4. I think that I would need the support of a technical person to be able to use this system.	x				
5. I found the various functions in this system were well integrated.			x		
6. I thought there was too much inconsistency in this system.				x	
7. I would imagine that most people would learn to use this system very quickly.			x		
8. I found the system very cumbersome to use.	x				
9. I felt very confident using the system.				x	
10. I needed to learn a lot of things before I could get going with this system	x				

## SUS for PLAYED

Total score

$$4 + 4 + 4 + 4 + 4 + 4 + 3 + 4 + 4 + 4 = 39$$

SUS score

97.5

## Test Results for Antonio

Task	Success	Time	Efficiency	Satisfaction
PLAYED 1.	Success without help	5 minutes	high	high, happy about the easy process
PLAYED 2.	Success without help	2 minutes	high	high, a lot of filters are available
PLAYED 3.	Success without help	3 minutes	high	high
PLAYED 4.	Success without help	5 minutes	high	high

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.				X	
2. I found the system unnecessarily complex.	X				
3. I thought the system was easy to use.				X	
4. I think that I would need the support of a technical person to be able to use this system.	X				
5. I found the various functions in this system were well integrated.					X
6. I thought there was too much inconsistency in this system.	X				
7. I would imagine that most people would learn to use this system very quickly.					X
8. I found the system very cumbersome to use.	X				
9. I felt very confident using the system.				X	
10. I needed to learn a lot of things before I could get going with this system	X				

### SUS for PLAYED

Total score

$$3 + 4 + 3 + 4 + 4 + 4 + 4 + 4 + 4 + 3 + 4 = 37$$

SUS score

92.5

## Test Results for Michela

Task	Success	Time	Efficiency	Satisfaction
PLAYED 1.	Success without help	4 minutes	high	high, very specific categories
PLAYED 2.	Success without help	1 minute	high	high, specific filter also based on the location
PLAYED 3.	Success without help	1 minute	high	high, levels of the seller give guarantees
PLAYED 4.	Success without help	5 minutes	high	high

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.			X		
2. I found the system unnecessarily complex.	X				
3. I thought the system was easy to use.			X		
4. I think that I would need the support of a technical person to be able to use this system.	X				
5. I found the various functions in this system were well integrated.				X	
6. I thought there was too much inconsistency in this system.	X				
7. I would imagine that most people would learn to use this system very quickly.			X		
8. I found the system very cumbersome to use.	X				
9. I felt very confident using the system.				X	
10. I needed to learn a lot of things before I could get going with this system	X				

## SUS for PLAYED

Total score

$$2 + 4 + 3 + 4 + 4 + 4 + 3 + 4 + 4 + 4 = 36$$

SUS score

90

## Test Results for Mario

Task	Success	Time	Efficiency	Satisfaction
PLAYED 1.	Success without help	5 minutes	high	high
PLAYED 2.	Success without help	2 minutes	high	high, a lot of filters
PLAYED 3.	Success without help	2 minutes	high	high
PLAYED 4.	Success without help	10 minutes	high	high

SUS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I think that I would like to use this system frequently.					x
2. I found the system unnecessarily complex.	x				
3. I thought the system was easy to use.					x
4. I think that I would need the support of a technical person to be able to use this system.	x				
5. I found the various functions in this system were well integrated.					x
6. I thought there was too much inconsistency in this system.	x				
7. I would imagine that most people would learn to use this system very quickly.					x
8. I found the system very cumbersome to use.	x				
9. I felt very confident using the system.					x
10. I needed to learn a lot of things before I could get going with this system	x				

## SUS for PLAYED

Total score

$$4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 40$$

SUS score

100

By analysing the results, the mean of the Total scores for the PLAYED application is 38, and the mean of the SUS scores is 95, very near to 100, which identifies almost perfect usability of the system. Compared to the means of the services analysed in 2.2, namely Vinted (SUS scores mean of 73.7) and Catawiki (SUS scores mean of 37.5) we can see that PLAYED obtained better overall results. On one hand, all the test participants found PLAYED very usable and efficient, with a clearer set of commands and very efficient in terms of customization, too.

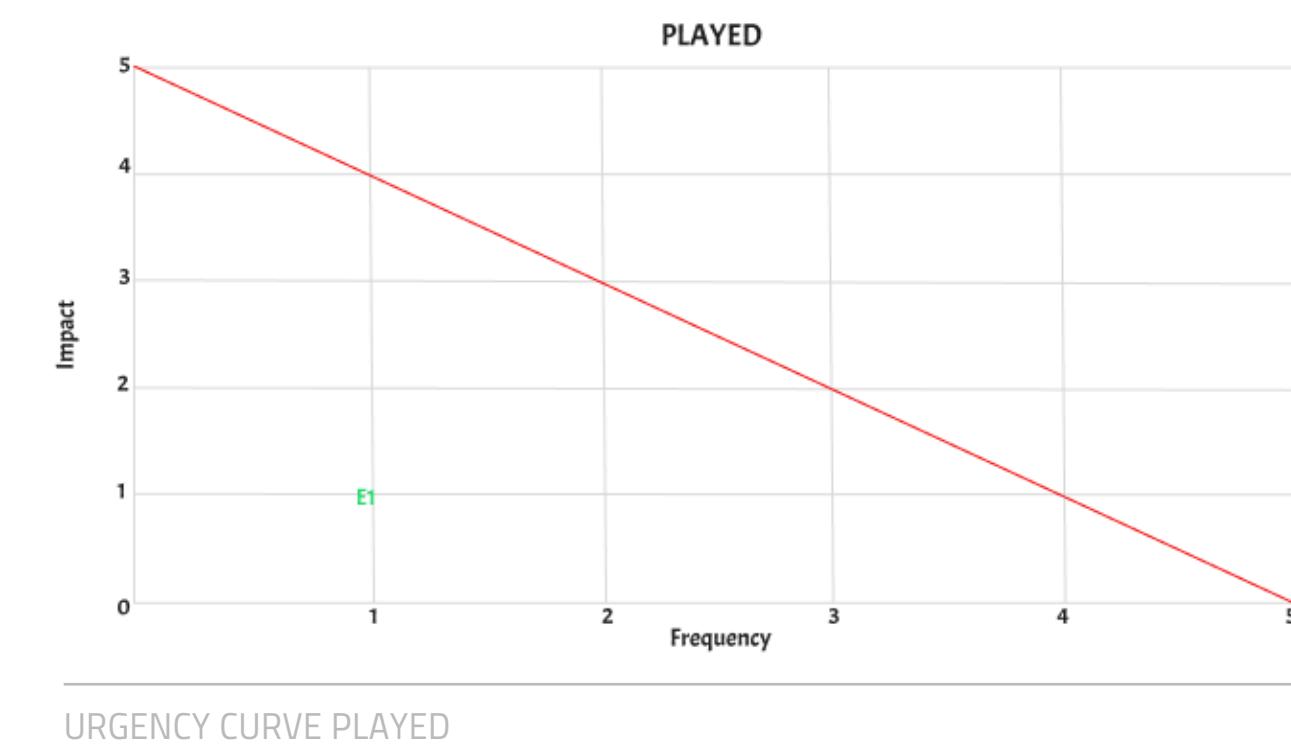
For what concerns the errors made by the participants, the few ones made were caused by distraction, so they will not count for our analysis. The only error that will count is a misunderstanding error (E1). Even though the application made clear that the "Make an offer" possibility while purchasing an item was not synonymous with auction, one of the participants didn't understand it and was looking for the "end" under the starting price in the item page. But after a double check it was clear to the participant what the offer actually meant.

### 5.2.3 Urgency Curve

The urgency curve has been created on the basis of the Usability Testing results of the previous section. In particular, a frequency/impact chart has been populated with the only error made by the participants. An urgency threshold has been drawn, above which all the errors have to be fixed as soon as possible.

### 5.2.4 Conclusions

We can conclude that the PLAYED service has obtained better results, both for Satisfaction and Efficiency of the system, with regards to the services analysed in 2.2. We can affirm that the design has taken into consideration all the suggestions proposed in the previous analysis by the participants. In particular, the easy of use underlined for the Vinted application, which was on the other hand absent in the Catawiki service, has been maintained in the PLAYED service, too: the + sign identifying the selling procedure; the possibility to message directly with the seller; the possibility to make an offer for the item to buy. In general all the functionalities were made visible and easy to access. On the other hand, we took into consideration also the cons highlighted in 2.2: in the Vinted service, the lack of customisation for both the selling and searching of items has been solved by offering a wide range of filters (which was one of the pros identified for the Catawiki application in 2.2); the predefined conditions in the selling phase that consider only clothes have thus been changed into specific conditions for video-games and consoles, taking inspiration from the Catawiki service; the absence of guarantee for what concerns the seller has been solved by introducing a Gamification process inside the PLAYED application. A series of challenges are proposed to the users, within the "Profile" section, and by completing them the personal Level of the user, such as in a video-game, raises or decreases with respect to specific rules. Thus, the higher the level, the better the reliability of the user. For what concerns one of the pros underlined for the Catawiki application, we have also introduced in PLAYED an optional service that enables the seller to evaluate their items by sending them to some experts (with the collaboration of local video-gaming stores).



## 6. Conclusions and recommendations

PLAYED has been designed to overcome the lack of a specific e-commerce devoted to retrogaming, with an easy and familiar interface, and offers a wide range of possibility of customization of the research and the selling procedure and allows users to build a trustful relationship between the seller and the buyer. With all the features added to the service, all of this is possible.

Through an initial demographic analysis we have identified our possible targets, composed in particular by buyers, e.g. individuals born between the end of the 80s and the beginning of the 90s, nostalgic about their childhood games, and sellers, e.g. individuals who possess consoles and video-games since their childhood but who are not passionate about retrogaming or do not need the specific item anymore.

We then proceeded by preparing a questionnaire to better understand, by analysing the answers, if our predicted target segments were conformant to reality and what could be improved in the design of our service.

Basing on the various suggestions proposed by the survey's participants, we have improved our service and developed in details the structure and the components of the PLAYED application, adding also an useful resource, the expert dashboard, offering thus a service which is not yet available on the market and which well integrates with one of the main features offered by PLAYED, namely the optional evaluation of the item made by an expert.

For what concerns the actual interface of the application, we stucked to the Vinted design, both for the affiliation of PLAYED to the well-known service and for giving a sort of familiarity to the user, also having considered the feedback of the users who took part in the usability testing phase, who found the Vinted design very easy to use and intuitive.

Another service important for the meaning of our application is the Gamification experience introduced in the user profile. This consists in a series of actions that could be performed in order to obtain points to accumulate to level up. If some sort of "bad" behaviour is detected, the level goes down. This has two major aims: the first is to create a sort of game inside the PLAYED app, for incentivize the user to use the service and to have fun while using it; the second is to connect the service to the reason why it has been created, which is to sell and buy retrogaming items.

**GAME OVER!**