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D6.3 Project Vision & Roadmap 2

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Abstract

This deliverable is the second update of- the Project Vision and Roadmap that take into account results generated within the project, other relevant scientific, technological or market developments, and the long term strategies of the EU and project partners.

Keywords

Vision; Roadmap; Iteration 3; strategy

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FIGURE 1 – I INNOVATION MANAGEMENT MODEL ADAPTED FROM D6.2. THE FIGURE SHOWS ALSO THE TIMELINE OF THE PROJECT (MONTHS 12, 18 AND 30) WITH THE RELATED DELIVERABLES REGARDING THE PROJECT VISION AND ROADMAP 9

Executive Summary

The purpose of the deliverable is to update the project vision according to evidence emerged during the project. The model adopted is the same adopted for Project Vision & Roadmap 1 (D6.2) and it considers both exogenous and endogenous forces. The formers take into account the evolution of the market, for instance new competitors and product launches, technology and scientific findings. The endogenous forces include achievements and found issues, but also evolution of the strategy and structure of the company.

The partners carried out several parallel activities to continuously monitor changes and trends of the wearable technology market, evaluated new products (see benchmarking in 5.1), scouted technologies that could affect the project and investigated new relevant scientific findings. Since there isn't a specific normative framework for wearable technologies, we performed an analysis of the regulatory scenarios for the ISEE product considering being compliant with the Medical Device (EU) Regulation 2017/745 for the European market. Finally, Iteration 3– 'Final product' was deeply analyzed in order to more clearly identify both potential threats and weakness, as well as strengths and opportunities for the developed product, see D3.6 – Issue List 3 and D4.4 – Product Validation Report.

With the exception of North by Focal, the other major smart glasses launched in 2018, for example the 2nd release of Spectacles by Snapchat and the Bose Frames, prefer the online distribution channel. This is in line with the finding of our investigations with specialists, indeed many opticians were concerned by changing the 'standard' customer journey on the shop to present, convey the value and, then, sell this product category. In term of value proposition, the 'activity tracker' of Vue eyewear is the only smart eyewear that gets closer to ISEE, but the type of functionalities provided are significantly different.

Finally, we analyzed the evolution on the 'wearable' product strategy in the company after the merging Luxottica and Essilor in EssilorLuxottica occurred in Oct 2018.

1. Introduction

As reported in deliverable D6.2- Project Vision & Roadmap 1, we believe that the development of an eyewear smart product is a potential breakthrough approach in this emerging sector of wearable devices. Indeed, the growth of the population that has access to the eyeglass products, the placement of the product itself in a strategic area of the body, the head, and its natural connection to one of the most important human senses, the sight, could make an eyewear frame a 'privileged', not-invasive wearable device.

The ISEE project aims at enriching the traditional eyewear-experience with technology-enabled innovative wellbeing functionality. Fashion, uniqueness and performance are the key principles that have driven the product development. Thanks to a specifically developed dedicated smartphone App, the customer experience has been designed and tested to define the behavior of the device with (tethered) or without (non-tethered) a Bluetooth connection with the user's mobile. The data are managed and stored in the App and in a custom Cloud environment fulfilling privacy and security issue related to storage and handling of personal data, in accordance with EU regulations.

In addition, multiple use cases developed during the project were assessed in order to match the level of technical readiness of specific features with the relative user interest, so that the marketing campaign could be tuned accordingly. On one hand, during user testing, the 'potential' customers showed interest for specific 'smart' functions aimed at improving the personal wellbeing; on the other hand, opticians expressed skepticism on modifying the 'traditional' customer journey in the shop to sell this 'smart' product.

In order to adapt our strategy to the dynamic and rapidly changing wearable landscape we adopted a model of innovation management (figure 1- adapted from D6.2) monitoring both exogenous and endogenous changes. In particular, we have been focusing on monitoring both the target market, analyzing the emerging technological trends, scientific findings and modifications to the normative framework, as well as the evolution of the company business strategy. These have both been considered, along with evidences emerged from project development, to refocus and optimize the product vision and strategy.

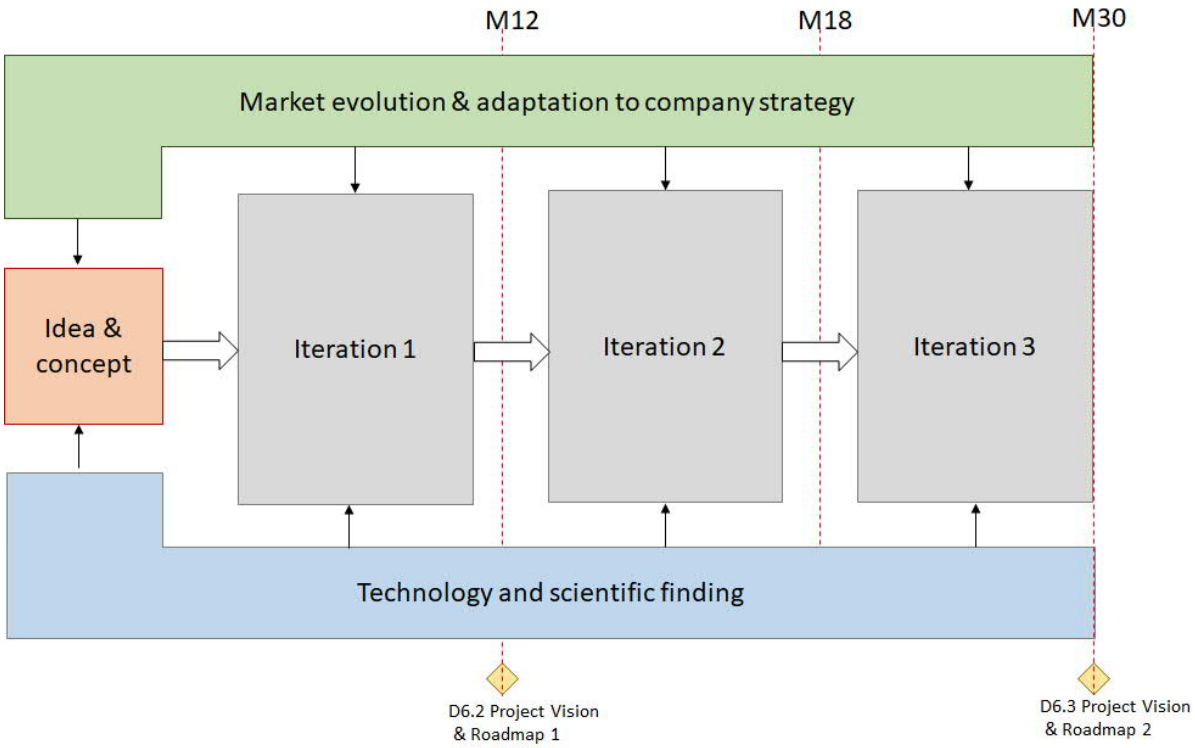

Figure 1 Innovation Management Model adapted from D6.2. The figure shows also the timeline of the project (months 12, 18 and 30) with the related deliverables regarding the Project Vision and Roadmap.

2. Innovation management process

2.1 Exogenous forces

At the start of the project, the interest for wearable technologies coincided frequently with the interest for fitness trackers and smartwatches. As firstly described in Wearable Technology 2016-2026 IDTechEx report, and confirmed in the Wearable Technology 2017-2027 IDTechEx report, the hype of attention for wearable technology has begun to fade towards the end of 2015.
The current tendency of wearable products is becoming commodities. This can be a huge risk for a manufacturing company, as it can greatly depreciate the value of the innovation that the company has developed during product development. Therefore, we should mitigate the risk of providing a product with a customer experience that is perceived as unremarkable, focusing on producing an outstanding experience.
The latter should be achieved not only through the development of premium customer services, which in turn rely on the quality of the on-board software and system, but also leveraging on the internal expertise to provide a product aesthetic that is on par with what is commonly expected from a fashion product, an achievement not commonly found on the wearable devices currently available on the market.

The long-term expectations for the growth of smart eyewear market are mainly related to the development of augmented reality (AR) and virtual really (VR) applications which, however, cannot be expected to provide aesthetically interesting products due to the obvious impact of the available electro-mechanical technologies that are needed to provide such kind of experiences.

And in fact, the major players that launched 'smart' eyewear products in 2018 targeted no-VR and no-AR applications, but instead focused on delivering more or less "simple" experiences but in a fashionable package: Bose launched sunglasses (ALTO & RONDO) able to deliver audio signal with an open-ear architecture [1]; Snapchat released their second version of Spectacles camera-sunglasses stressing the aesthetic improvements over their previous products [2]; Vue, after a successful crowdfunding campaign in 2016, is collecting orders for a new product release featuring two 'styles' (both prescription and sunglasses) and additional functions such as audio streaming (with bone conduction technology), activity tracking and the delivery of smartphone notifications[3].

The current trend for communication and distribution strategies related to 'smart' eyewear is to exploit the online channels to guide the customer in the marketing funnel from awareness to purchase. An exception is North by Focals [4], a custom-build AR eyewear that can be purchased only in dedicated stores, today available only in Toronto and Brooklyn. From our understanding, considering the specific vision technology they decided to implement in their products, this choice was driven by the need to perform a 3D scanning of the user head in order to be able to provide even the most basic functionality.

In the no-AR & no-VR landscape, therefore, the main value proposition of smart eyewear is to deliver functionalities already provided by other devices, like audio streaming, picture snapping and activity tracking, while keeping the eyewear identity. Consequently, the focus is globally shifting from function to both function and form, with the later taking ever more predominance.

On wellbeing functionalities in particular, the market seems still in search for an iconic product and, among the above-mentioned products, only Vue Smart Eyewear is able to provide activity tracking functionalities and possibly able to replace wearables like Fitbit [5].

Finally, the normative framework remained essentially unchanged from the previous version of the document (D6.2). In fact, in absence of a specific certification standard for wearable devices, the most reasonable approach is to inherit requirements from their 'not-smart' counterparts. Specifically, the eyewear providing eyesight correction is considered a Medical Device and is addressed by the Medical Device Regulation (MDR) in Europe.

2.2 Endogenous forces

As already stated, the risk of depreciating the value of the technical innovation embedded into the product led us to focus on providing a premium costumer experience, considering the peculiar characteristics of the device (positioning, usage, etc.) and leveraging on the specific expertise of different project partners in order to provide a value proposition that is currently unmatched. Indeed, ISEE differentiation is not limited to aesthetics but extends to its functionalities, which were developed by the FCSR research partner. Exploiting the privilege placement of the eyewear on the head and close to the eyes, we developed implemented no-medical functionalities to promote vision and postural wellbeing. These functionalities were then evaluated in terms of level of readiness and user interest through field tests with 'potential' customers, and this allowed us to define the short- and long- term plan for the release of the product (Product Validation Report- D4.4) without affecting the differentiation strategy.

Regarding other possible stakeholders, on one hand we found interest from research groups on exploiting the product capabilities in academic research studies. On the other hand, although

opticians recognized the benefits that the product could bring to their customers, they were skeptical on modifying the traditional customer journey map within the shop. Therefore, as also adopted by other major players (section 2.1), we concluded that the proper distribution channel for ISEE is online, at least for an initial introduction on the market.

3 Conclusion and next step

ISEE is part of the Luxottica R&D project portfolio in the area of development called 'quantified-self'. The product platform developed in the project would enable several releases of this new product category.

Currently, the last iteration of the product achieved a technology readiness level (TRL) of 9, and the functionalities selected through the field tests represent what could be a first product release. Thanks to the studies of the normative framework, the benchmarking analyses, the market insights and the monitoring of the competitive landscape, we were able to identify a proper strategy for product positioning, market testing and to define the communication and distribution plans.

In the long term, new product releases should consider the results of the market tests together with the development of other ISEE functionalities currently evaluated as 'interesting but not ready' (see D4.4).The natural evolution of manufacturing technologies will also allow for more compact and easily implementable form factors.

From the 1st October 2018, Luxottica merged with Essilor International S.A, a French-based international ophthalmic optics company, becoming EssilorLuxottica. Since Essilor also has a Smart Eyewear team working in the 'quantified-self' field, we started the process of project portfolio rationalization and consolidation. Essilor was also planning a different market positioning of their first quantified-self product.
In consideration of this, and taking into account that the market itself has now different, higher expectation from the new Company, a process has started for a review of the technologies developed by both original companies in order to provide a consistent offer to the market, which could imply some modifications of developed products before actual commercialization.

4 References

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