



Digital Nutraceutical; combining scientifically-validated natural ingredients with digital technology

Digital technologies have enabled a new era of customer centricity thanks to the data revolution. We have already seen how new ways to gather and analyze data, have led to a deeper understanding of consumer needs and wishes. Combined with new development methods have result in improved and more adapted solutions and even new business models in many industries. At Monteloeder we believe it's time for the Nutraceutical and Functional Foods sectors to take the step towards the future of our industry. With this purpose we created our new concept: Digital Nutraceuticals, combining a scientifically proven health ingredient with a unique digital platform.

DIGITALIZATION: PROVIDING A SECOND LIFE TO YOUR SUPPLEMENTS

In the increasingly competitive market of nutraceuticals, it is very difficult to stand out above the rest. Consumers are overwhelmed with the amount of options, making it difficult to choose a given product. Therefore, it is necessary for the industry to develop a new strategy, placing the consumer in the spotlight. This is where digitalization comes in. Under the classic method, a company comes out with a new product, spends resources in publicity and marketing strategies, but once the consumer purchases the product, there is no further communication, leaving future purchases solely in the hands of the consumer. If the product was not of their liking, or did not meet their expectations, then the consumers did not repurchase. However, a digital nutraceutical allows the companies to remain near the consumers while taking a product, and can interact with them, giving them insights on its effects on their body, as well as provide them with advice towards a healthy lifestyle. In this fashion, consumer appreciation improves, and the possibilities for future purchases are increased. Not to mention this kind of approach can also be used to get consumer insight, get to know them better in order to personalize and adapt your solutions.

We have digitalized several of our branded ingredients. For example, our branded ingredient, Metabolaid, is a combination of plant-based extracts whose purified active ingredients have been clinically shown to help consumers lose weight, as an appetite suppressor. Also, it has an effect at the metabolic level, decreasing triglyceride accumulation in the fat tissue, as well as increasing lipid degradation ("fat burner" effect).



At the same time, we have developed a mobile application that helps the consumers take Metabolaid, while

also measuring their weight loss, appetite and daily habits, such as physical activity or sleep, among others. Metabolaïd's effect on the body has been proven in both pre-clinical and clinical studies, and the results of these studies are presented in a user-friendly manner in the mobile app. The more connected is the consumer, that is, the more wearable devices he/she uses, the more information that can be provided to the consumer, for a more personalized experience.



Thanks to digitalization, personalized nutrition is possible, since it allows you to measure the consumer's habits, activity, consumption, etc, and in return, give them information on how to reach their goal. This is not possible with just the nutraceutical, since there is no interaction between the company and the consumers, and a generic app does not give any information regarding a specific product. Therefore, it is necessary to combine these two apparently different worlds, tech and supplementation, in order to have a more complete health solution; one that can be measured, modifiable and personalized. The one size fits all approach is no longer valid. Each consumer has different personal characteristics, context and habits and a complete and personalized solution needs to take those factors into consideration.

The mobile application can register and adapt (if needed) product consumption, improving consumer adherence. It is a good tool to track (either directly or indirectly), demonstrate and communicate the product's effects. Using notifications and educational messages when needed the app it is designed to target and modify consumer habits.

These three aspects conform the digital nutraceutical concept. By detecting and tracking the effects of the product, the consumer is granted with added value than with the supplement alone. For example, in the case

of the Metabolaid app, if the desired weight loss is not achieved, the app can detect and send messages to the consumer as to the possible reasons (low physical activity, lack of sleep, unrealistic expectations, etc).



Also, additional products can be recommended to the consumer to help them (products to provide more energy, to sleep better, etc). This is the true value of digitalization.

In fact, we do not consider this approach as the development of a new product or service, but rather a global health solution. In this solution, we include a branded ingredient that we have formulated and proven in the clinic to be highly efficient in improving consumer's health in a certain aspect (weight loss, cardiovascular health, skin care, etc). This is combined with a mobile application that allows the consumers to measure the effectiveness of the product, as well as provide guidelines towards a healthy lifestyle. Furthermore, unlike the classic approach of product development, the combination of branded ingredient with mobile app results in a new concept of a "living" product. In this sense, as technology advances, we can adapt, improve and complement the existing digital application with updates, making the solution more and more effective, improving consumer appreciation, and at a faster timeframe than under normal development phases.

A UNIQUE PROPOSITION

This is a completely novel approach, since normally IT companies develop mHealth apps as a service, while food supplement companies develop products, but as of yet there is no company that has a product combining the two. In Monteloeder, we have previously developed a similar approach with an oral skin care

product, Nutroxsun, and are developing one for Metabolaid. With the Metabolaid app, the consumer will have insight on how Metabolaid is helping them lose weight, while also provide guidelines towards a healthy lifestyle.



In this sense, Monteloeder is pioneer in the “digital nutraceutical” concept. We consider the digitalization process as part of the product development, even during the initial phases. Therefore, digitalization is incorporated as an addendum feature, and not a substitute of the normal product development process. This is important not only for the development of our own branded ingredients, but also for those developed for other companies that wish to also jump into the digital world. In fact, we consider several possible scenarios regarding the interaction with partner companies:

1) Launch a product integrating one of Monteloeder’s solutions (branded ingredient and related digital application): A partner integrating one of our branded ingredients in an existing or new product, can also benefit from using Monteloeder’s digital solution and platform. Adapt the application to their branding and include/modify existing functionalities if needed.

2) Digitalization of an already-developed product (incorporate digitalization in the developmental phase): In this scenario, Monteloeder would act as an advisor to the digitalization process, assessing the clinical studies that the partner company has regarding their product, and giving insight as to what would be the most efficient, measurable parameters to include in their mobile application

We collaborate by designing the Customer Journey for the Digitalization process, additional clinical studies and pilot testing might be needed. With the information regarding the product’s effects and the Customer Journey, we would then design the user cases and know-how as to how the application should be developed, focusing on product appreciation, consumer compliance, and personalization parameters.

3) Develop a product from scratch: This last scenario would be the most efficient and ideal. In this phase, we would co-develop a new product with a functional target, considering the possible formulas based not only on the claims, but also on the effects that the consumer may perceive. A final product should evolve with the consumer, with effects to be perceived in the short, medium and long- term. In this manner, the consumer perceives the product as a global solution to a certain health condition, and not just something

that targets one specific aspect.

THE NEW KID IN TOWN

Digitalizing health is one of the new hot topics in recent years. Many top-notch tech companies, such as Apple, Google, Under Armour and more, are realizing the importance of digitalization in health. At the same time, health-related companies and healthcare institutions are adopting digital technology as part of their services, allowing new healthcare concepts such as telemedicine, including at-home monitoring of patients, virtual appointments, patient portals, and more. This makes healthcare to be more accessible for consumers at home and can manage more efficiently their health. Furthermore, similar approaches can be extrapolated to nutrition and nutraceutical sectors, providing personalized solutions. Personalization increases effectiveness, which at the same time improves consumer compliance and approval, and ultimately a long-lasting effect on their health.



Many companies from around the world have shown growing interest in the digital nutraceutical concept and have contacted us to show them the possibilities. The relevance of this concept is apparent, as we have been finalists in the Future of Nutrition Awards in Food Ingredients Europe 2017, as well as finalists in the Editor's Awards for Innovation of Nutraingredients in Vitafoods Europe 2018. Right now, we are involved in the development of several digital applications for companies of the food, supplementation and beauty sectors.

THINK BIG, START SMALL

In the upcoming years we will see an increasing number of food and supplementation companies adopting personalized nutrition approaches. But before being able to offer holistic solutions, a lot of advances are yet to be done. The current state of the art has certain limitations, current technologies do not allow to do a precise and exhaustive tracking of an individual's status and nutritional needs in real time, at least not at an industrial scale and in a user-friendly manner. Yet huge investment is being done to set up all the technological needs as



well as new delivery systems to ensure personalized nutrition will become a reality.

The lack of an optimum technological frame might be seen as a handicap, but instead we conceive it as a great opportunity for nutraceuticals and functional foods companies. The current digital and wearable technologies are good enough to start tracking certain health and personal conditions sometimes directly or indirectly and with different precision degrees. Thus, it is a good starting point for companies that are selling products with an impact in a concrete measurable health condition.

Trying to improve health and wellbeing in a holistic way and demonstrate it to the consumers, is like starting the house from the ceiling. But if you start demonstrating improvements focusing on more narrow conditions, consumers will start seeing the value. The final goal is being able to accompany consumers in their journey to achieve an overall wellbeing through their nutrition and habits. Our proposal is to start with conditions that you can already track and demonstrate, create an app to interact with your consumers and start growing your solution organically towards a wellbeing portal.