

Everyone is different. This is certainly true when it comes to nutrition and health. Foods that seem to have no effect on one person may be a way to illness or disease for another. Good advice may be perceived completely differently. Personalisation could be a solution. It puts the consumer in control of a healthier lifestyle.

For the personalised nutrition business to be sustainable, questions need to be answered and challenges addressed. These questions and challenges were highlighted in stakeholder interviews conducted



by Foodvalley NL and indicated the need for a joint, ecosystem-aligned definition of personalised nutrition, sharing of insights into profitable business models, a move towards joint ecosystem innovation, as well as greater clarity on data use and protection, the IT infrastructure, the required science and the legal framework. In response to these expressed needs, Foodvalley NL has joined forces with experts and stakeholders to produce this position paper. To date, some position papers on personalised nutrition have been published.<sup>1,2,3</sup> This global position paper is the first to focus on the business and innovation aspects of personalised nutrition and was written by a broad consortium of academic and industry experts. This position paper is intended for a wide range of stakeholders including industry partners, academics, healthcare (insurance), investors, regulators, consumers and (non-) governmental agencies.

Together, all stakeholders will make a positive difference in the way we offer and buy (information about) food. Let's shape the future of food together!

Judith van der Horst – Graat, PhD Food & Health lead, Foodvalley NL Website Food & Health

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## EXECUTIVE SUMMARY AND FUTURE RECOMMENDATIONS

### **Executive summary**

This position paper identifies international consensus on the novel subject of personalised nutrition. It is refreshing and encouraging to see that the broad community of personalised nutrition stakeholders, from academics to start-ups and corporates, has come together to summarise their common ground. One shortcoming we have to acknowledge is the lack of input from stakeholders based in low- and middle-income countries. For the sake of inclusivity and global impact, we hope to expand our network and include that input in a future iteration.

Personalised nutrition is a young and growing field, founded in biological science and now matured into a more holistic concept of ensuring that consumers can be in the driver's seat when it comes to their nutritional choices. In that respect, personalised nutrition is embedded in the whole food system, with all of its challenges related to health and sustainability.

To lay the foundations of growth for the whole personalised nutrition field, a descriptive and quite comprehensive definition of personalised nutrition is proposed in this paper.

'Personalised nutrition could be a service or a product. It uses individual-specific information, is founded in evidence-based science and has the goal to give consumers control and promote a positive, sustainable dietary behavioural change. This may then result in measurable benefits for personal goals like health improvement and health maintenance, or disease specific benefits.'

Scientifically, the substantiation of a personalised nutrition solution is largely already possible. The combination of learnings from nutritional and behavioural sciences ensures advice that puts the user firmly in control and is measurably effective. However, this level of evidence is certainly not yet the market standard.

Specific IT and data infrastructure need to be built for these safe, effective, simple and profitable solutions. A Datahub setup is suggested as a viable solution.

Personalised nutrition is subject to extensive regulations. In this paper, the EU situation is highlighted but also globally the relevant topics are data protection, product qualification and claims.

We conclude that business success is not yet widespread in personalised nutrition. Towards the future, we expect ecosystems of complementary partners to offer multifaceted solutions to consumers. These solutions are data-driven and based on mutual trust and transparency.

### **Future recommendations**

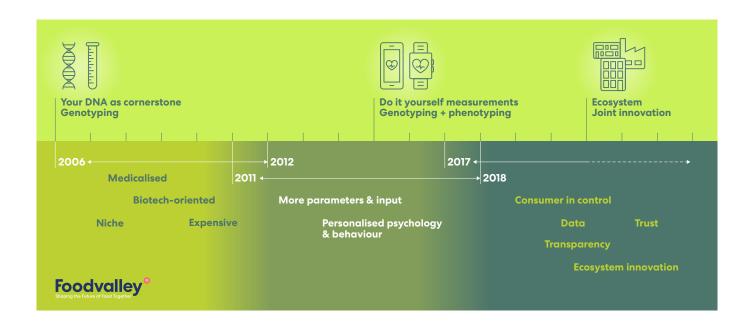
Looking towards the future, the authors and editors pointed at developments in the following areas:

- > Joint and multidisciplinary innovation for the growing market and ecosystems of personalised nutrition
- > Structured and demand-driven investment, both from public and private sources
- > Policy and legislation to support this growing field
- > Training the broad range of personalised nutrition professionals of the future

A future is envisaged in which personalised nutrition will, on the one hand, consist of niches where very specialised players interact one-on-one with their well-informed clients, as is the case in existing business models. On the other hand, larger consortia will build dynamic digital platforms where the mass market consumers can find the information and motivation that fits their momentary personal goals. We believe the bulk of personalised nutrition growth will be in this segment.

Irrespective of which scenario plays out for future routes, joint innovation and a uniform vision for personalised nutrition service providers and related services for the future for the industry will be required. With this position paper, Foodvalley NL and all the authors, editors and supporters contribute to that.

### INTRODUCTION TO PERSONALISED NUTRITION



The personalised nutrition industry is a rapidly and exponentially growing market projected to reach \$16.6 billion by 2025. 4.5.6 Current trends - including the need for better health in the wake of Covid19 and the search for a sustainably food system - create opportunities for a strong personalised nutrition industry. These opportunities also present challenges in this immature and evolving market.

It could be argued that personalised nutrition as an industry started in 2006 with the launch of UK based direct-to consumer nutrigenetic company Sciona. The industry continued to grow slowly and quietly until in 2012, when more genetic and blood marker testing companies entered the space. By 2015, the industry had mushroomed into several segments that included smart eating as well as devices, trackers, DNA and blood biomarker tests, and personalised nutrition supplements and meals. Following the publication of several landmark papers<sup>7</sup> and general public interest, the microbiome segment also grew to become an exceedingly popular segment. By 2018, the industry expanded to include 200 companies providing a mixture of products and services. By 2020, despite the challenge of a pandemic, the industry is poised for growth and currently comprises around 350 companies offering a range of solutions.8

In terms of evolution, one could distinguish three phases with personalised nutrition starting with a focus on DNA analysis. This phase evolved into a second phase with a systems approach and more holistic advice enabled by advances in technology and Artificial Intelligence. Currently, this phase is evolving into a third phase with recommendations being underpinned by behaviour change techniques to ensure clients can develop lasting healthier eating habits. Instead of only requesting consumers to submit (health and lifestyle) data to receive personalised advice and feedback, modern personalised nutrition approaches require interaction and reciprocity between parties. Important to future success is the feedback from the consumer on the effectiveness and utility of the advice. This continuous consumer feedback is an integral part of data needed to continuously improve the underlying algorithms to continuously provide tailormade advice. Ecosystems of companies need to work together to add true value for the individual consumer by providing advice, tools and products necessary to facilitate behaviour changes that support the user's health, wellness and even sustainability goals.

## ECOSYSTEM-ALIGNED DEFINITION OF PERSONALISED NUTRITION

In the scientific literature and around the web, several definitions for and views on 'personalised nutrition' can be found. L2.9.10.11 Having clarity about what personalised nutrition is and what it is not, is a prerequisite to be able to discuss the topic and set important steps towards a mature market.

The authors agree that personalised nutrition is or should be more than just the best evidence-based nutritional advice. To impact health, behavioural change is necessary. Thus, the definition should at least contain two pillars: the physiological and the psychosocial.

One of the more recent definitions can be found in Adams 2020<sup>1</sup> and states that 'Personalised nutrition uses individual-specific information, founded in evidence-based science, to promote dietary behaviour change that may result in measurable health benefits.'

The authors of this position paper agree that this definition is suitable for the description of personalised nutrition but did feel the definition could benefit from some fine tuning and further clarification for marketplace and/or healthcare application. We therefore propose the following definition of personalised nutrition:

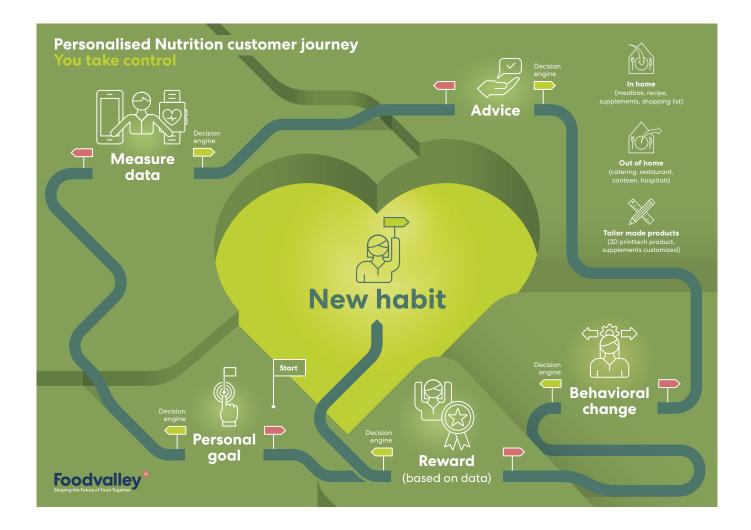
'Personalised nutrition could be a service or a product. It uses individual-specific information, is founded in evidence-based science and has the goal to give consumers control and promote a positive, sustainable dietary behavioural change. This may then result in measurable benefits for personal goals like health improvement and maintenance, or disease specific benefits.'

We discussed whether the definition needed more emphasis on the ethical aspect of personalised nutrition but feel that with 'giving control' and 'evidence-based', we cover this point sufficiently. Following paragraphs will look into the scientific and legal framework of personalised nutrition in more detail.

"WHEN FOODVALLEY ASKED IF I COULD TAKE THE LEAD IN WRITING A GLOBAL POSITION PAPER ON PERSONALISED NUTRITION I JUMPED TO THE OPPORTUNITY. BOTH FROM MY ROLE IN HAPP AND MY PERSONAL MOTIVATION, I FEEL VERY STRONGLY ABOUT BRINGING TOGETHER STAKEHOLDERS, GROW THE ECOSYSTEM OF PERSONALISED NUTRITION AND ENABLE SUCCESSFUL CONSUMER SOLUTIONS."

Nard Clabbers Happ

# THE PERSONALISED NUTRITION CUSTOMER JOURNEY



Modern personalised nutrition approaches require interaction and reciprocity between parties. Important to future success is the feedback from the consumer on the effectiveness and utility of the advice. This continuous consumer feedback is an integral part of data needed to continuously improve

The underlying algorithms to continuously provide tailormade advice. It will put the consumer in control on its nutritional advice.

"THE FOODVALLEY PERSONALIZED NUTRITION
POSITION PAPER IS A SHARED ROADMAP
FOR STAKEHOLDERS TO DELIVER INNOVATIVE
PRODUCTS AND SERVICES THAT DELIVER ON THE
PROMISE OF PERSONALIZED NUTRITION. NLUMN'S
MISSION IS TO MAKE PERSONALIZED NUTRITION
ACCESSIBLE TO HELP EVERY INDIVIDUAL MAKE
BETTER CHOICES AND LIVE A HEALTHIER LIFE."

Joshua Anthony Nlumn

## FINDING BUSINESS SUCCESS IN PERSONALISED NUTRITION

Despite so much potential, profitable personalised nutrition examples are few and far between. There are as many opportunities as pitfalls in this space, necessitating a cautious approach. This section will provide a high-level overview of successful and unsuccessful business cases, factors needed to succeed, and future outlook to overcome barriers for sustained growth.

### Which successful and unsuccessful business models are and were in use

Although business-to-consumer (B2C) emerges as the dominant business model, companies also employ business-to-business or even business-to-business-to-consumer models in some cases. The solutions offered by companies in the personalised nutrition value chain can range from personalised dietary recommendation services to personalised products like meal kits or supplements (including vitamins, probiotics, etc.) based on different levels of specificity. Other incumbent models also help customers with 'at-home' or 'on-the-go' healthy eating.

Business models that cater to 'high-interest' consumers, especially targeting supplements, are successful but still niche. These business models seem to resonate with strategies given the ease of scalability. It also underscores that cost, convenience and deliverance of clear consumer benefits are current drivers in the personalised supplement space.

B2C products and services that are combined in a clear, easy-to-understand way and targeted at a specific consumer base seem to have witnessed a reasonable degree of success on the personalised dietary recommendation front.

Lessons learned from failed personalised nutrition companies show us that innovation (technological solution) and financial support are not the most crucial factors in creating a profitable business model within personalised nutrition. For instance, Arivale accrued \$53 million in venture funding but only a reported 5,000 to 15,000 customers in the same time frame. Citing its high price points and customer acquisition costs, Arivale

ceased operations in 2019. Arivale's failure highlights the need for affordable personalised nutrition solutions that do not struggle with extremely high customer acquisition and retention costs.

Habit was another well-known personalised nutrition company and Campbell Soup Company invested more than 32 million dollars into Habit in 2016. However, less than two years later, Habit put its expansion plans on hold and in 2019 Campbell's sold Habit. This example highlights that while many food and beverages companies may be interested in investing in personalised nutrition, they may struggle with the different business models required for personalised nutrition companies to show returns on investment. In general, the gap between perceived and experienced value underscores the need to clearly align a product to user needs, the lack of which will only lead to user disappointment and attrition.

### Factors that are crucial in profitable business models

Successful business models are likely to embody science- and evidence-based products and services that offer a good balance between perceived effort and experience gains. This approach entails having a clear target group and value proposition to organise the right distribution channels with a scalable and sustainable cost model. Profitable personalised nutrition business models should provide an affordable route to the market for consumers and a profitable path to market for investors. As personalised nutrition solutions continue to evolve, reducing the cost burden on consumers while delivering increased perceived benefit value, especially for solutions with increased personalisation, is desirable. As the evidence base grows, companies will find additional ways to reduce the cost to consumers through reimbursable programmes via employers, government health programmes or insurers, opening up newer avenues to promote adoption.

Secondly, convenience will continue to be another essential factor for a profitable business model. The effort consumers are making should be in balance with the added value that is generated by the personalised nutrition offering. Solutions with a good value proposition

## FINDING BUSINESS SUCCESS IN PERSONALISED NUTRITION

that provide actionable insights, rapid attainment of measurable health benefits and blend with consumer lifestyle tend to retain consumer engagement, striking a balance between effort and gains. The gap between personalisation and convenience is narrowing, and this will eventually play a crucial role in shaping the future of personalised nutrition.

One simple way to narrow the gap between personalisation and convenience is offering a product or service that target groups can use on a routine basis, resulting in increased engagement and retention. A short feedback loop of goal-related parameters and the smart use of behavioural change techniques may also add to this. As the user becomes more engaged, services can then be expanded. This is a key way to balance user resources (inputs) with programme and service deliverables (outputs) and learnings can be used to refine the personalisation offering. Companies providing personalised nutrition products do need to weigh the supply chain constraints and scalability to local needs and local product availability.

### What does the future hold and what barriers should be removed to scale up innovations in personalised nutrition?

Industry investment and collaboration is essential to take personalised nutrition to the next level. Promoting joint innovation and fostering partnerships is crucial to debottleneck value chain challenges and drive growth in personalised nutrition. Industry players from various value chain points, from tech companies, diagnostic companies, food producers to retailers and other organisations or professions like health insurance, health care and dieticians should be involved to foster a connected ecosystem. The concept of 'food as medicine' will grow in momentum, provided local governments play a supportive role to create the space for developing such solutions.

Personalised nutrition solutions will evolve to become a multifaceted model, allowing users to self-select what goods and/or services are most relevant to their needs. This, in turn, will enhance user retention for subscription programmes and compliance with prescribed dietary regimens. Reduced costs of testing (e.g. DNA sequencing) and consumer tests to create the right value proposition will drive down out-of-pocket costs for users. Expect players to monetise data on the back end, for instance with newfound information on nutrition-health relationships, adding revenue streams to reduce consumer-facing price points further.

"HOW, AS A SCALE UP, CAN WE RESPOND IN SMARTER WAYS IN ORDER TO TARGET SPECIFIC LIFESTYLES VIA PERSONALIZATION OF FOOD—USING TECHNOLOGY AND DATA, AND USING FRESH AND UNPROCESSED PRODUCTS AS STARTING POINT. THERE IS A HUGE POTENTIAL FOR FOOD FOR HEALTH, AND PERSONALIZATION IS ONE IMPORTANT ASPECT BECAUSE THE MEDICAL SYSTEM IS BUILD ON INDIVIDUAL SOLUTIONS AND TREATMENTS WHEREAS THE FOOD SYSTEM IS BUILD ON HOUSEHOLDS AND SOCIAL CONSUMPTION."

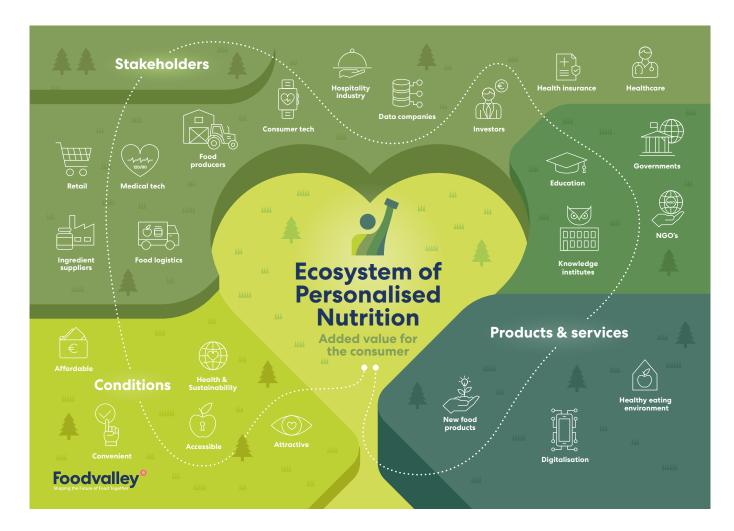
Jack Stroeken Ekomenu

# THE ECOSYSTEM OF PERSONALISED NUTRITION

Personalised nutrition can be seen as broad ecosystem with a broad reach that goes from seed developers to food retailers and from tech and data companies to the hospitality industry, always with the consumer in the driver's seat and connected through and driven by data. A prerequisite to this ecosystem is a foundation of trust and transparency. Apart from businesses, the personalised ecosystem also includes governmental and non-governmental bodies, knowledge institutes, educational institutes.

A flourishing personalised nutrition ecosystem that links all contributing parties is needed to empower consumers to change their behaviour towards more healthy and preferably also more sustainable dietary practices. A linked system will bring products and services that are attractive, simple to use, affordable, convenient, and available together so that the consumer can make fully informed choices. Only by having solid connections and collaborations, can targeted products and services be provided that will truly empower and change consumer behaviour on a meaningful scale. Some niche one-on-one solutions will surely always still be relevant and profitable.

Towards the future, it is logical that more and more data-driven connections and joint innovations are needed to enable the growth of the personalised nutrition market.



## DATA AND IT INFRASTRUCTURE FOR PERSONALISED NUTRITION

Personal information is required for the development of targeted nutritional advice, products, and services. The input can include medical data (diagnoses, medication, allergies, intolerances), genetic/microbiome/physiological data, behavioural data (diet, physical activity, sleep) as well as someone's routines, fitness and weight goals, personal, social, and cultural preferences, purchase habits and other environmental data. Such data are extremely sensitive and require special security and handling protocols. Personalised nutrition data can be static (e.g. having an allergy), change over time (e.g. body weight), or measured at a continuous rate (e.g. physical activity, glucose level) and can differ in quality. The type and sensitivity of personalised nutrition data entail some particular requirements for the underlying IT infrastructure so that clients can be reassured their data are protected in the immediate term and for posterity.

Data and IT infrastructure requirements

Working with personal data, real time components, (AI) algorithms and the 'internet of things' requires a robust IT infrastructure. Continuous innovation in personalised nutrition demands a platform that is flexible, but at the same time governable, secure, scalable and cost effective. A so-called Datahub setup can be the start for long-term success.

### A Datahub typically consists of five main components:

- Management and control: all security settings, certificated (conform applicable regulations), all authorisations, logging, backup policies, retentions etc. for the Datahub
- 2 Data-ingestion: data in all kinds of formats, speed (batch or streaming) and volumes can land on the platform
- 3 Data storage: data can be stored in tables, databases, or files-data can be archived when not used
- 4 Processing: algorithms can be deployed to be trained, put into production. Data can be combined, transformed etc.
- 5 Serving Layer: (transformed) data can be made available to applications like apps, visualisation, download

Trust and transparency should be the foundation of the whole personalised nutrition platform, not only to comply with regulations but also to remove consumer doubt about data sharing. Best practice includes clear communication about risks and benefits and how to opt out as well as opt in. It is also about the approach and evidence (nutrition guidelines) used in the platform, which data are stored and what is done with collected data.

To conclude, the end user of the personalised nutrition platform should be kept in mind when designing the data platform. Data and platform requirements are determined by the use case, considering the option to grow and extend the use case. The consumer should be free to choose what fits their needs, able to rely upon data safety and be afforded the right to opt out at any moment.

"IT'S ALL ABOUT UNLOCKING PERSONALIZED NUTRITION TOGETHER: HOW TO BEST CREATE A SUCCESSFUL PERSONALIZED NUTRITION ECOSYSTEM OF SOLUTIONS THAT IS ACCESSIBLE TO EVERYONE, TO ENABLE THEM TO FIND WHAT IS RIGHT FOR THEM IN A SUSTAINABLE AND AFFORDABLE WAY?"

Liesbeth Zandstra, Unilever

### SCIENCE OF PERSONALISED NUTRITION

People differ greatly in their response to food. Personalised nutrition solutions could take into account inter- and intra-individual differences in response to food. Given these individual differences, in practice, how do we scientifically substantiate the effectiveness of a personalised nutrition approach?

For personalised nutrition solutions, two levels of substantiation can be considered:

- 1 Personalised nutrition approaches that make use of substantiated food-health relations and incorporate those in decision algorithms or models
- 2 Substantiation for the effectiveness of the personalised nutrition solution in its totality in improving dietary behaviour and inducing health benefits

For the first level of substantiation, physiological inter-individual differences are used as a starting point in a personalised nutrition algorithm and linked to existing evidence-based food-health relations. For instance, for individuals with elevated triglyceride levels, the EFSA health claim on the beneficial effect of omega-3 fatty acids in lowering triglyceride levels could be incorporated into a personalised recommendation.

As well as taking account of existing food-health relations, personalised nutrition approaches can also make use of data-driven strategies in discovering new diet-health relations and personal dietary responses. Underlying models should be based on large, representative, inclusive datasets which preferably also contain information on long-term outcomes and are based on physiological and/or psychosocial principles. Public health guidelines, either global or national, should form the basis of personalised nutrition solutions.

For all personalised nutrition approaches, dedicated trials are required in order to assess the effectiveness of the personalised nutrition approach as a whole in achieving behaviour change and health benefits. This brings us to the second level of substantiation. The level of evidence required may vary depending on the novelty and complexity of the approach, as well as differences

in legislation between countries. Novel data-driven approaches may require more extensive validation as compared to approaches focusing on dietary preferences. Traditionally, food-health relations are investigated using randomised controlled trials and population averages. In personalised nutrition, study designs focusing on individual responses, such as n-of-1 case studies, modelling or segmented analyses may be more suitable. In n-of-1 studies, an individual's response to various dietary interventions can be investigated over time.

In personalised nutrition studies, not only health effects should be considered, but also the clinical relevance and added value thereof in relation to the burden of frequent or invasive measurements for customers. Lastly, for scalability of personalised nutrition approaches, it is important to consider which populations were studied and the potentially ethical implications thereof.

To conclude, transparency on the personalised nutrition algorithms used, the rationale behind resulting recommendations, the level of scientific evidence and associated ethical issues are key to the establishment of a sound a scientific foundation for personalised nutrition.

"THE POSITION PAPER MIGHT HELP TO SET THE SCENE FOR FURTHER MATURATION OF THE PERSONALISED NUTRITION MARKET, WHICH IS OF DIRECT INTEREST TO VERDIFY AS ONE OF THE FRONTRUNNERS IN THIS DOMAIN. THE PAPER PROVIDES A FRAMEWORK FOR EXPLAINING TO BUSINESS PARTNERS HOW AND WHY WE OPERATE TO HELP ORGANISATIONS AND CONSUMERS BENEFIT FROM PN."

Jochem Bossenbroek Verdify

# THE REGULATORY FRAMEWORK OF PERSONALISED NUTRITION

From a legal perspective, the personalisation of nutrition raises many interesting questions regarding the applicability of existing law to this phenomenon, including the question which legal framework is applicable depending on the type of claims made and the functioning and effect of the product. Below, we briefly summarise the three main legal challenges which we identify and examine from an EU law perspective:

- 1 processing personal data
- 2 product qualification
- 3 nutrition and health claims

Our contribution has been phrased based on the EU regulatory framework; however, comparable legal questions also arise in other regions and countries globally.

### 1 Processing of personal data

The essence of personalised nutrition is that it targets individuals, including their phenotypic and/or genotype information, their specific lifestyle and/or their dietary requirements. In order to do so, any supplier of personalised nutrition will have to process personal data, more in particular data concerning health.

For any supplier of personalised nutrition products and/ or solutions, it is of essence to only process personal data based on a valid legal basis, such as consent (art. 6 EU Regulation 2016/679, or 'GDPR'). Processing health data is in principle prohibited, unless specific conditions have been met (art. 9 GDPR).

Suppliers of personalised nutrition products and/or solutions should be able to demonstrate with respect to the personal data of each individual they are processing that the conditions of articles 6 and 9 GDPR (such as consent) have been met, for example by documentation of written consent forms.

### 2 Product qualification

As personalised nutrition is defined in this position paper, 'measurable benefits' may imply a certain health intervention at an individual level. The way in which these health benefits are communicated plays an important role in the qualification of the product being offered. For example, such a product could qualify as a medicinal product (rather than as a food product) not only by way of function, but also by way of presentation.

Personalised nutrition products could also qualify as a(n) (in vitro) medical device. Medical devices are any device, software or other article intended by the manufacturer to be used for specific medical purposes, such as the diagnosis, prevention, monitoring or treatment of a disease (art. 2 EU Regulation 2017/745, or 'MDR'). The essential question for the MDR's applicability is therefore whether the article or software concerned has a medical purpose or is merely lifestyle or well-being related.

How a personalised nutrition product or service is qualified determines the applicable regulatory framework and has a significant impact on the legal requirements. Entrepreneurs should be open to a thorough product qualification analysis before market entry.

### 3 Nutrition & health claims

Even if personalised nutrition qualifies as a food product as opposed to medicinal product or medical device, this does not mean that just any health benefit can be claimed on such a product. In fact, there is a pretty strict legal framework that applies here, not only to mandatory food information, but also to voluntary food information. As to the latter, we refer to the framework on health & nutrition claims. Any statement that describes, suggests or implies that a food product either has certain beneficial nutritional characteristics (nutrition claim) or that its consumption will result in certain health benefits (health claims) is regulated within the EU (Regulation (EC) No 1924/2006). Only pre-authorised claims which are considered substantiated by scientific evidence, as assessed by the European Food Safety Authority (EFSA),

## THE REGULATORY FRAMEWORK OF PERSONALISED NUTRITION

can be used on foods. Health claims can exclusively be used to address health benefits of foods, and no suggestions or implications can be made that consuming a food may result in treating, curing or alleviating symptoms of a disease (Regulation (EC) No 1924/2006). Only when health benefits are supported by pre-authorised claims and the product meets the conditions of use for this claim, health benefits of personalised nutrition products can be put forward.

Currently, it is for instance uncertain whether referring to genetic predispositions in claims would be considered making a medicinal claim or a health claim.<sup>12,13</sup> Also, it is unknown whether health claims, currently mainly targeting the general population, could be directed to specific target groups who would benefit from these personalised or tailored products.<sup>13</sup>

Overall, personalised nutrition is subject to extensive regulation under existing EU legislation. From a birdseye view of legal frameworks applicable globally, data protection, product qualification and the regulation of voluntary food information comprise similar concepts although the detailed rules differ. Awareness of the different regulatory frameworks is critical before market entry.

"WITH THIS POSITION PAPER WE WANT TO CONTRIBUTE TO MORE AWARENESS OF HEALTHY EATING, AND THE IMPORTANCE FOR DATA DRIVEN AND EVIDENCE BASED HEALTHY CHOICES. BY PARTNERING IN FOODVALLEY NL'S GLOBAL POSITION PAPER, WE CAN EXPRESS CLEAR'S VISION ON PERSONALIZED NUTRITION. TOGETHER WITH THIS NETWORK WE CAN CREATE MORE IMPACT AND HELP MORE PEOPLE TOWARDS A HEALTHY LIFESTYLE."

Madelon Bracke Clear.

For further reading: 14,15,16,17,18,19

"WITHIN THE PRECISION HEALTH & NUTRITION PROGRAM OF ONEPLANET RESEARCH CENTER NEW SENSOR AND DIGITAL TECHNOLOGY FOR PERSONALIZED NUTRITION & HEALTH IS DEVELOPED. INVOLVEMENT IN THE DISCUSSION AND WRITING THE POSITION PAPER GIVES INSIGHTS IN CHALLENGES AND OPPORTUNITIES DIFFERENT PLAYERS HAVE IN THIS FIELD AND MAY LEAD TO NEW COLLABORATIONS."

Annelies Goris Imec – OnePlanet Research Center

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