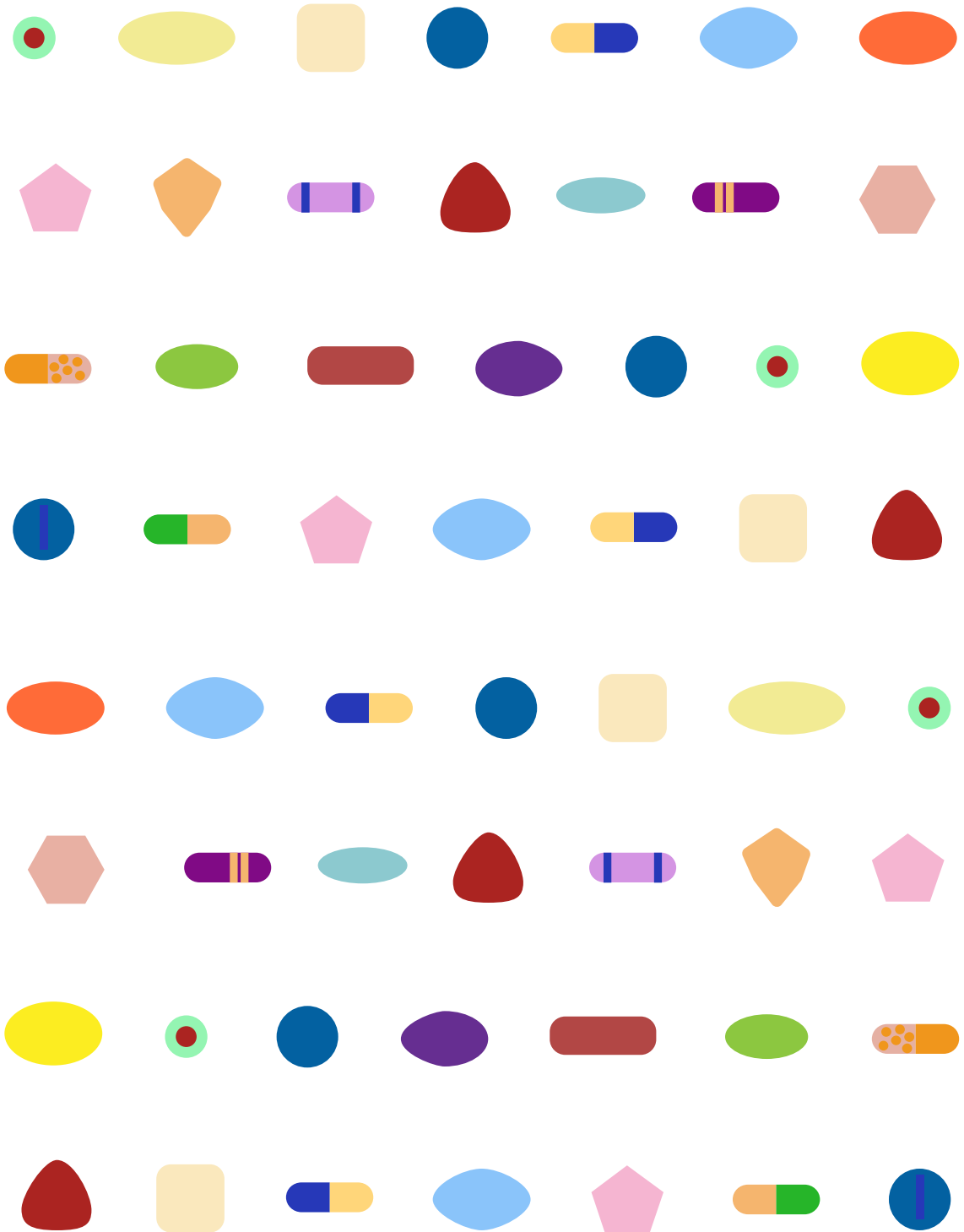


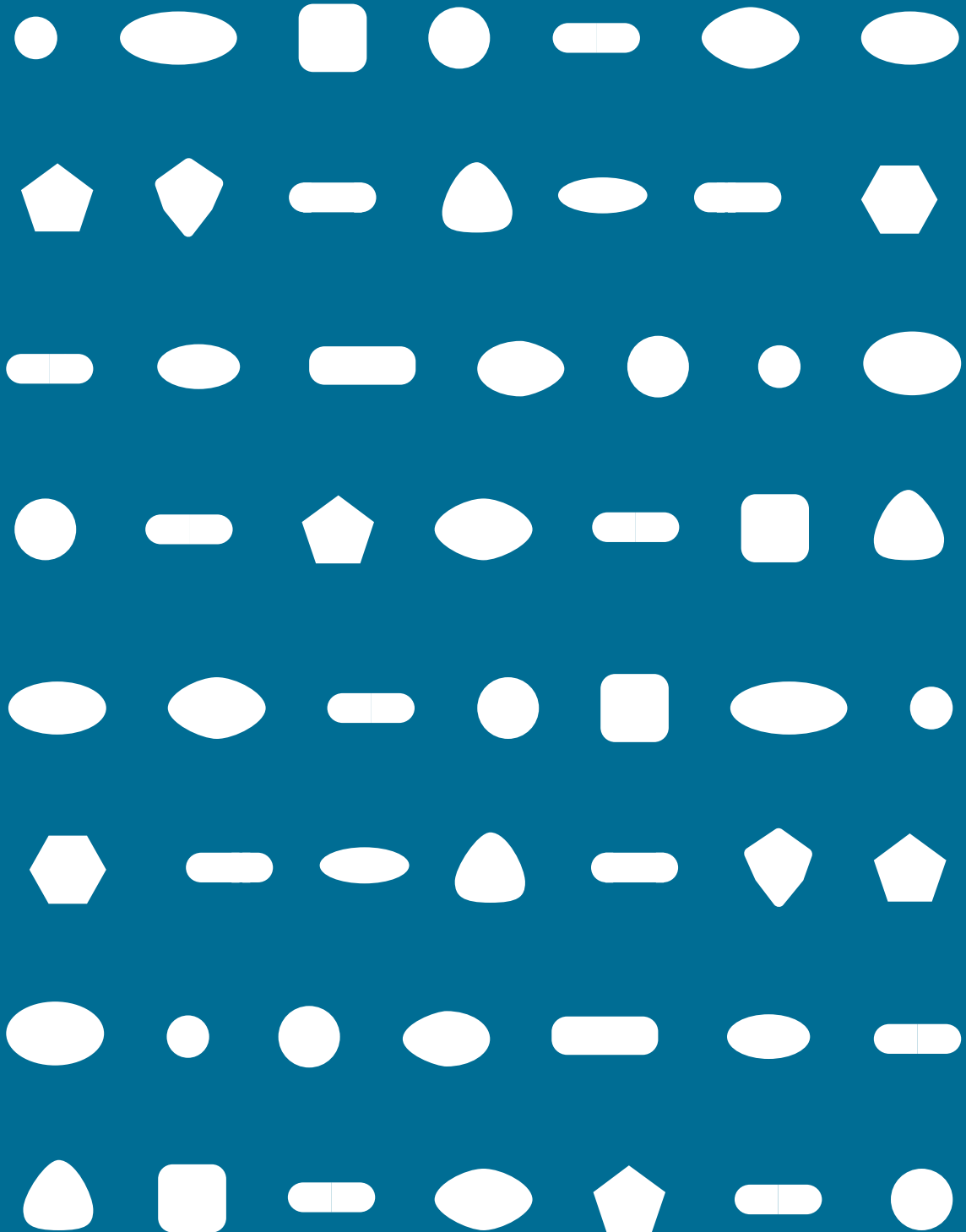


Unboxing the future of healthcare

Scenarios and trends of consumption



Unboxing the future of healthcare



Instructions for Use

The *Unboxing the future of healthcare* report has no ambition to predict the future. It rather wants to present itself as a time machine that will show us one of the many possible futures for *healthcare*.

It will not take us into any future, but within our preferable future, the one we want to achieve, without falling into improbable utopias.

In the represented future not everything will be solved, some problems we will carry with us and others will appear. However, if we start working on the focuses highlighted by the research right away, this future will soon become a reality and the problems will seem less serious. In other words, the future is not already written but is in the hands of those who have the possibility and the courage to create it.

From the very first pages you will be able to guess that this is not a classic research report made up only of numbers, graphs and synthetic comments. In fact, after this introduction, you will find yourself dealing with a comic set in our future. Why a comic? Because it completes and enhances all the data collected and systematized by Strategy Innovation and Palladio, allowing you to immerse yourself in the new reality and open a dialogue with those who want to share our future.

From the comics everyone will be free to find their own way and to experience feelings of comfort, rejection, or enthusiasm. Those readers who will share this proposal are invited to reach this future with us as soon as possible. The story told is not the work of a creative and visionary writer, but is the translation of the data and information collected and “put into motion” by Strategy Innovation and Palladio. Nothing you will read is pure fantasy but it is actually about actions, objects or people that already exist or are under development, the exceptions “covered by large numbers”.

After you have read the comic, and while reading the rest of the report, abandon linear thinking and imagine alternative paths that have less obvious directions. Going deeper into a trend or a case study, do not close yourself in the first ideas that will come to you, but combine with those that will arise from the comparison with colleagues, friends, customers and with the people with whom you will share the most interesting pages.

While reading this report ask yourself as many questions as possible but never ask yourself if what you read will become reality, rather ask yourself what place you want to occupy in this future.

Editorial



Gabriele Molari

Head of Marketing and Customer Innovation
Palladio Group

Since its foundation, Palladio Group has always been able to readily seize the opportunities offered by the market, with a vision focused on the customer: in this way, thanks to the daily work of all the people, we have established a close relationship with many of them, which, after 70 years of history, still allows us to deeply understand their needs today, but also to imagine their ambitions for the future.

But the future, by definition, is difficult to predict, especially in these turbulent times.

For this reason, rather than betting on scenarios proposed by others and then crossing our fingers, we prefer to have a proactive approach and involve our customers, suppliers and partners and all the other subjects that gravitate around our value chain, in the creation and modeling of future scenarios desirable for all. Only through this collaboration do we feel able to read the changes taking place in the world of Healthcare, and seize new opportunities for innovation in a sector that is going through a phase of great change, linked to issues such as digitalization, sustainability, personalization of the patient's experience, domestication of care, etc. Over the years, at Palladio we have built up a know-how that today is perfectly capable of capturing some of these elements, and using them as lenses to re-read the very concept of *packaging* in different forms from those we are used to, even broadening our business perspectives, but always from a systemic perspective.

Therefore, in this report we wanted to take the first step in this direction, imagining some possible futures, starting from objective data from the observation of reality, from case studies or from more or less weak signals of change, but above all thanks to the participation of people who work in the most strategic sectors of our company.

Together we have imagined the pharmacies of the future no longer limited to the dispensing of drugs, but as the first hybrid, modern and comfortable means of the personal care system, at 360 degrees.

We have positioned the patient at the focal point of the treatment system, which will be increasingly personalized and therefore more effective and from a passive subject (patient), we have made him proactive, informed and involved in the dialogue with doctors, pharmacists, pharmaceutical companies.

We have thought of new intelligent packages, which allow the pharmacist to quickly check if a drug is counterfeit, or to explain to the patient how to take a drug through Augmented Reality or in the Metaverse, which eliminate administration errors in hospitals and allow the patient to adhere precisely to the prescribed treatment, without forgetting or doubting, perhaps even having fun.

Who wouldn't want to live in this context? And are we sure that it is such a distant future?

This publication is just the first step for us, an invitation for a dialogue to anyone who wants to get involved with us, and continue to build these stories together, which are ready to be questioned, completely rethought, enriched or simply made real.

Stronger together



Gabriele Molari

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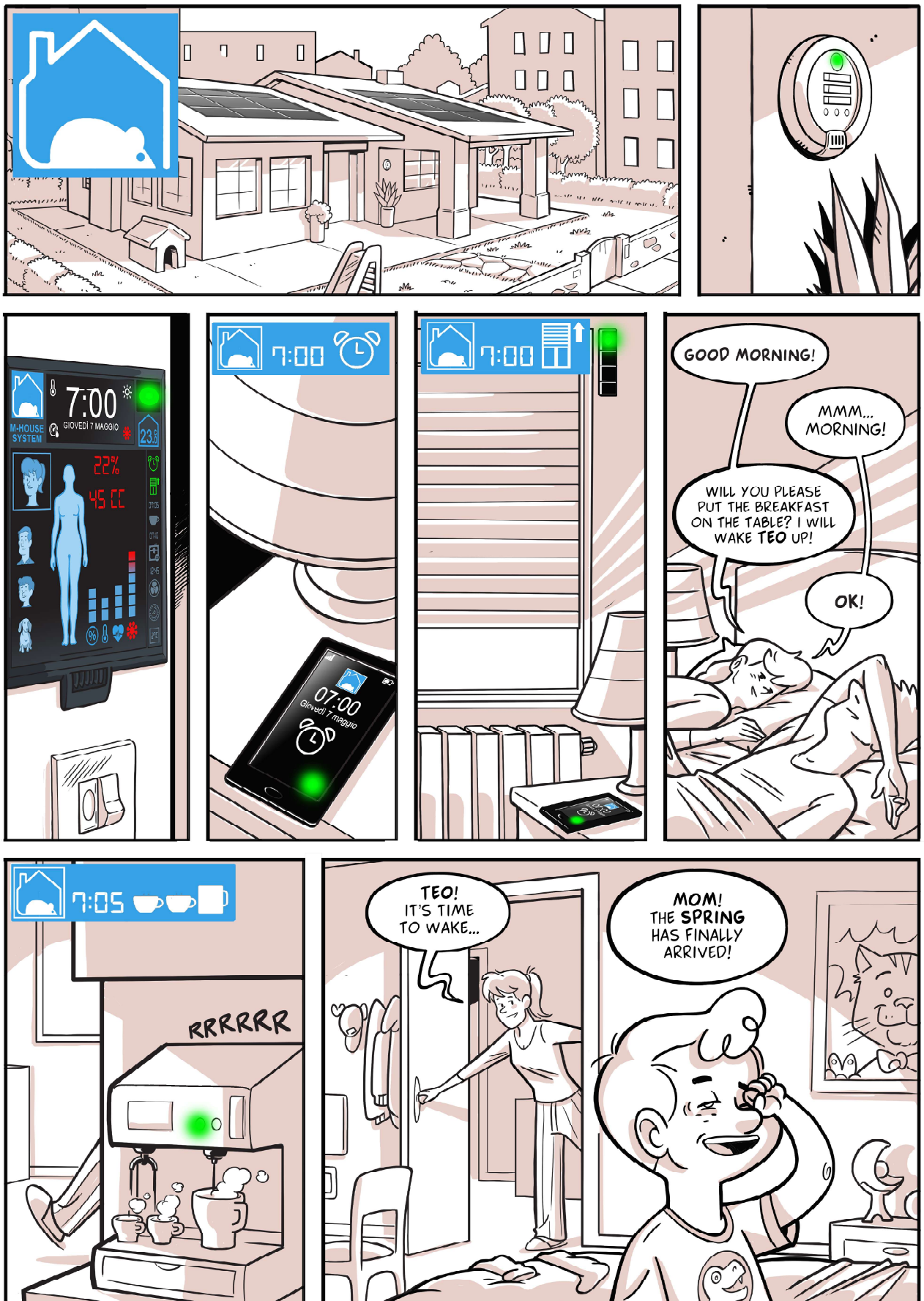
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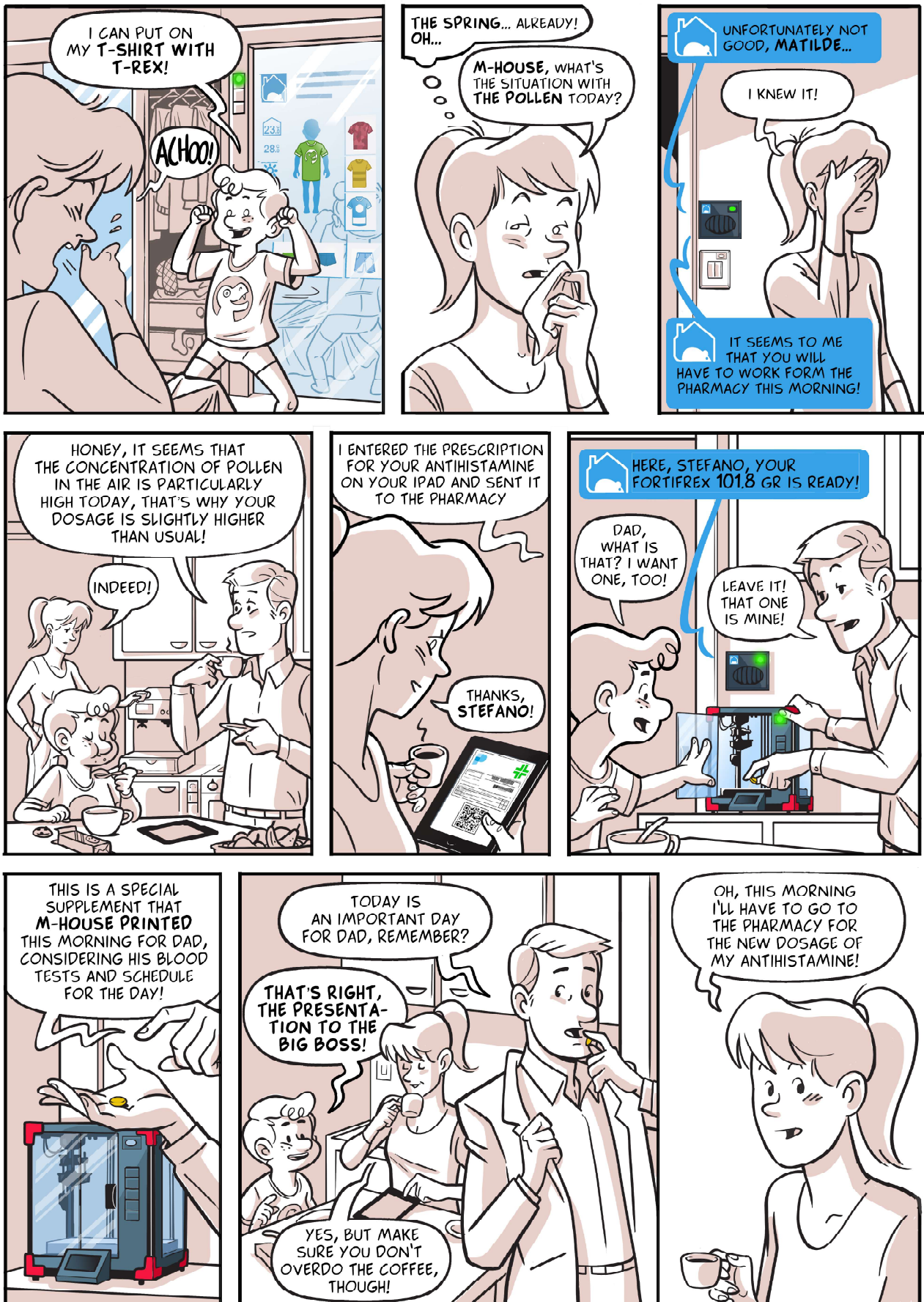
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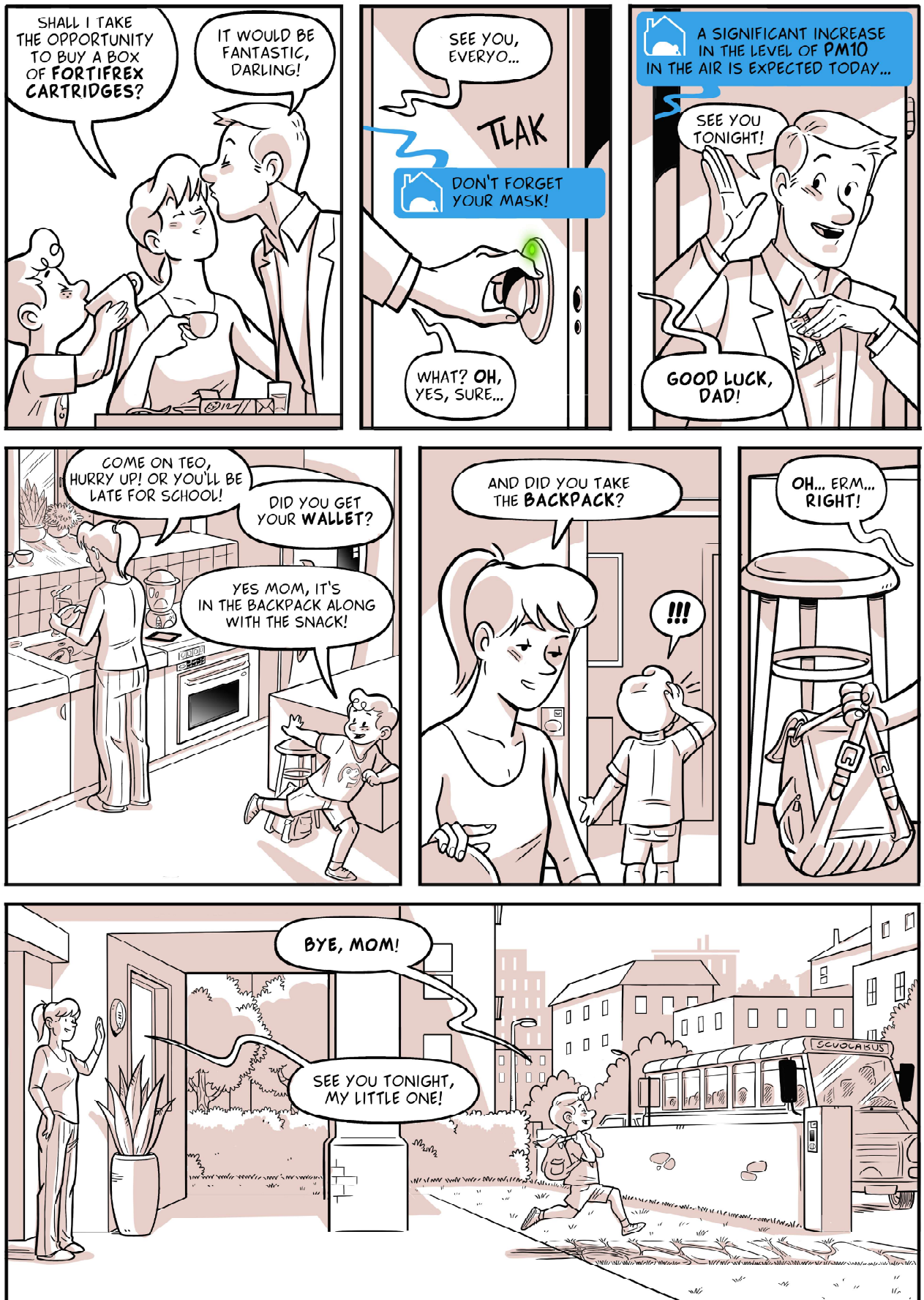
SCENE 1

The caring home assistant of M-house

It is 7.00 in the morning; the alarm rings on Stefano's smartphone, activating the shutters of the house, which slowly begin to open, letting in the first light of the morning. A pleasant aroma of coffee begins to spread from the kitchen and while Stefano runs to prepare breakfast for everyone, Matilde goes to Teo's room to make sure he is awake. When she enters the bedroom, he finds little Teo already standing in front of the wardrobe, intent on choosing the clothes to wear on the display which, like every morning, suggests the best match based on the temperature and weather conditions: "Mom - Teo says with a sleepy but happy voice - spring has finally arrived! Matilde looks at her son with a shy smile, but her first thought immediately goes to the terrible allergy that regularly, every year, visits her when the first spring pollens appear. "M-House - Matilde asks aloud, forcing herself to keep smiling - how is the pollen situation today?" "Unfortunately not well, Matilde - M-House's voice resounds from the walls, I really think that this morning you will have to work from the pharmacy!" When she arrives in the kitchen together with the usual latte and her favorite biscuits, she receives a 'priority' notification on her Ipad. "Honey, I entered the prescription for your antihistamine on your Ipad and sent it to the pharmacy: apparently, the concentration of pollen in the air is particularly high today, that's why your dosage is slightly higher than usual", Stefano warns her. "What is this, dad? I want it too! "Teo asks pointing to a red pill, similar to a gummy candy, on his father's plate. "No - Stefano shouts, just in time to stop the hand of the child who was already bringing the pill to his mouth. "This is a special supplement that M-House printed this morning for Dad, considering his blood tests and schedule for the day. Today is an important day for dad, remember?" "Yes, the presentation to the big boss," answers Teo. "Exactly; so dad will need the energy of Fortifrex to face this day!" "Yes, make sure you don't overdo the coffee, though," Matilde warns him, pointing with a reproachful look at his double espresso. "Oh, this morning I'll have to go to the pharmacy for my antihistamine: shall I take the opportunity to buy a box of Fortifrex cartridges?" "It would be fantastic, darling," Stefano replies with a kiss, quickly getting up to leave after finishing his breakfast. "Don't forget your mask: a significant increase in the level of PM10 in the air is expected today..." the electronic voice resounds in the distance. "Come on Teo, hurry up! - Matilde urges softly - Or you'll be late for school. Did you get your wallet?" "Yes, mom, it's in the backpack along with the snack - Teo reassures her by snorting, grabbing his backpack from under the chair and running towards the door to the sound of the horn of the school bus. "See you tonight my little one, have a nice day!"







SCENE 2

The new super power of the SmartMan

Rrrriinnnggg! After two hours of math, Teo can finally breathe a sigh of relief at the sound of the recess bell. But before rushing into the courtyard with his companions, another familiar sound captures him: “Great powers need great care,” says Smartman’s solemn voice, followed by the theme song of his favorite animated film. When he went to the pharmacy with his grandmother and they told him that he had to take the antibiotic every day for 10 days, and right at recess time, Teo started whimpering, shaking his head firmly: he didn’t want to take medicine like that, in front of all his companions; they would surely make fun of him. Besides, superheroes don’t take medicine. “Are you really sure about that?” one of the men in the pharmacy asked him, coming out of the warehouse and holding a colored box in his hand with drawings that looked like ... oh yes, they were really intergalactic trails! “Let me tell you - the pharmacist continued - the medicine you should take is inside a little box that looks like it belongs to a certain Smartman ... if I’m not mistaken, this is his voice, isn’t it?”, he asked, turning on what was actually the voice of his favorite superhero. “Even superheroes sometimes need extra help to ensure the strength and energy they need to continue saving the world,” the pharmacist explained. In the end he convinced him, and after all he couldn’t wait to show his friends that new toy, connected to a bracelet to wear under the shirt, just like the uniform that Smartman always wears under his clothes so as not to be recognized... This way, thanks to his Smartwallet - as he had immediately renamed it - he had not forgotten even once to take the medicine, managing to heal from that bad sore throat much faster than many of his other friends who had been home from school for weeks. Now, walking towards the water dispenser with his wallet, he was even a bit sad that this was the last blue candy in the package, but luckily there were still quite a few of the red ones.





SCENE 3

The new dimension of the pharmacy between health and work

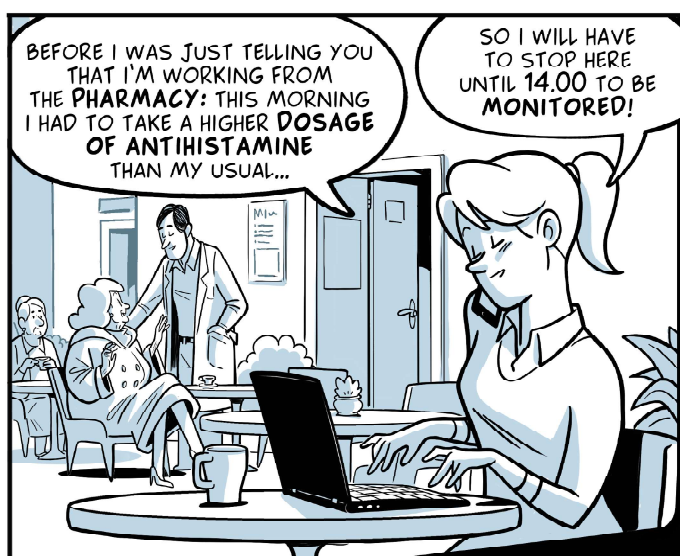
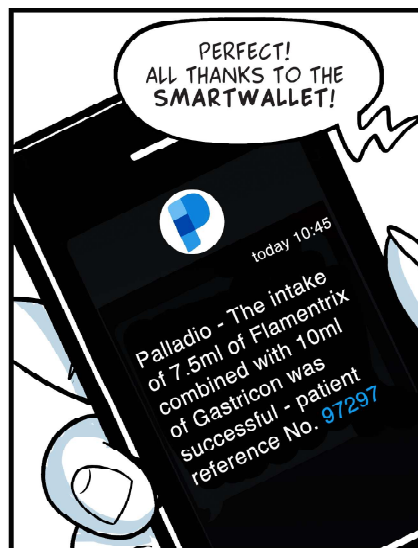
“I’m sorry, I’m waiting for an important message - Matilde explains to her colleague, interrupting the call - I’ll call you back in a couple of minutes.” After hanging up, the young woman opens the notification on the phone that tells her about her son Teo taking the antibiotic: the intake of 7.5ml of Flamentrix combined with 10ml of Gastricon was successful – patient reference No. 97297. “All thanks to the Smartwallet”, Matilde thinks to herself, sure that without what had become a kind of a toy for her son, she would certainly not have been able to convince him to take the medicine during school hours, and let alone remind him. “Here I am, sorry again, but my son Teo is on antibiotic therapy and I have to make sure that he takes his medicines at the same time every day. By the way, before I was just telling you that I was working from the pharmacy. This morning I’ve had to take a higher dosage of antihistamine than my usual, so I will have to stop here until 14.00 to be monitored. Would you like to join me for lunch? Ok, I’ll wait for you at 13.00 then, see you later, bye!”

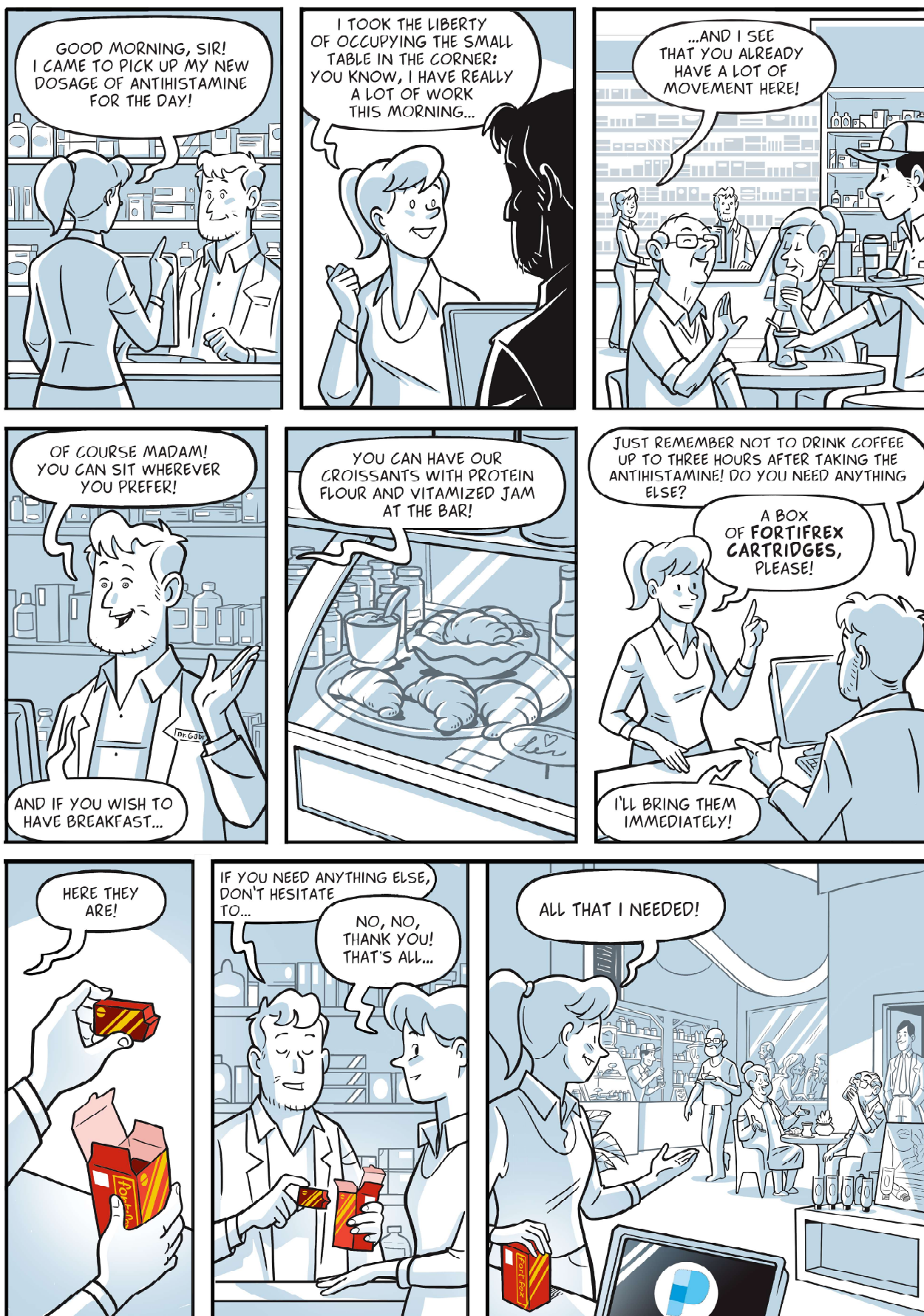
That morning, after she had dressed and got ready as usual, Matilde went straight to the pharmacy: she could work there directly, without having to take leave from work to take the new dosage of antihistamine. At that time in the morning the pharmacy was still half-empty: there were only the pharmacists and a small group of elderly people, who, judging by their appearance and verve, had certainly come for a routine check-up, then using this opportunity to have an energizing coffee-scented milkshake and chat with friends. After securing the most peaceful and secluded small table in the corner that allows her to work in peace, Matilde goes to the counter, with a recipe in her hand, to retrieve the antihistamine.

“Good morning. I came to pick up my new dosage of antihistamine for the day. I took the liberty of occupying the small table in the corner: you know, I have really a lot of work this morning, and I see that you already have a lot of movement here”, says Matilde to the pharmacist, giving an amused smile to the old men who in the meantime had started to laugh out loud. “Of course Madam, you can sit wherever you prefer! We’ve got today’s fresh brioche with protein flour and vitaminized jam that have just arrived at the bar, if you would like to have breakfast. Just remember not to drink coffee up to three hours after taking the antihistamine. Do you need anything else?”

“A box of Fortifrex cartridges, please.”

“Let me just run to the warehouse and I’ll be immediately with you,” replies the pharmacist, disappearing behind the counter.



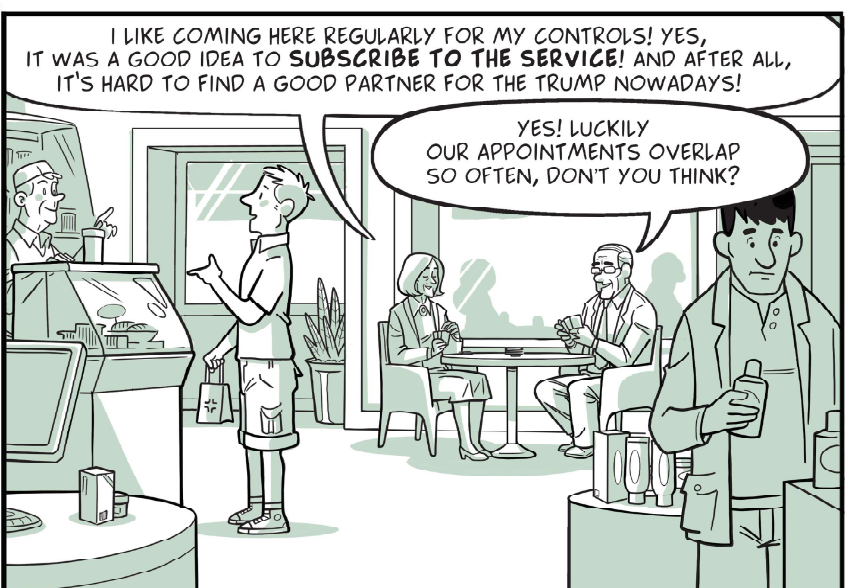


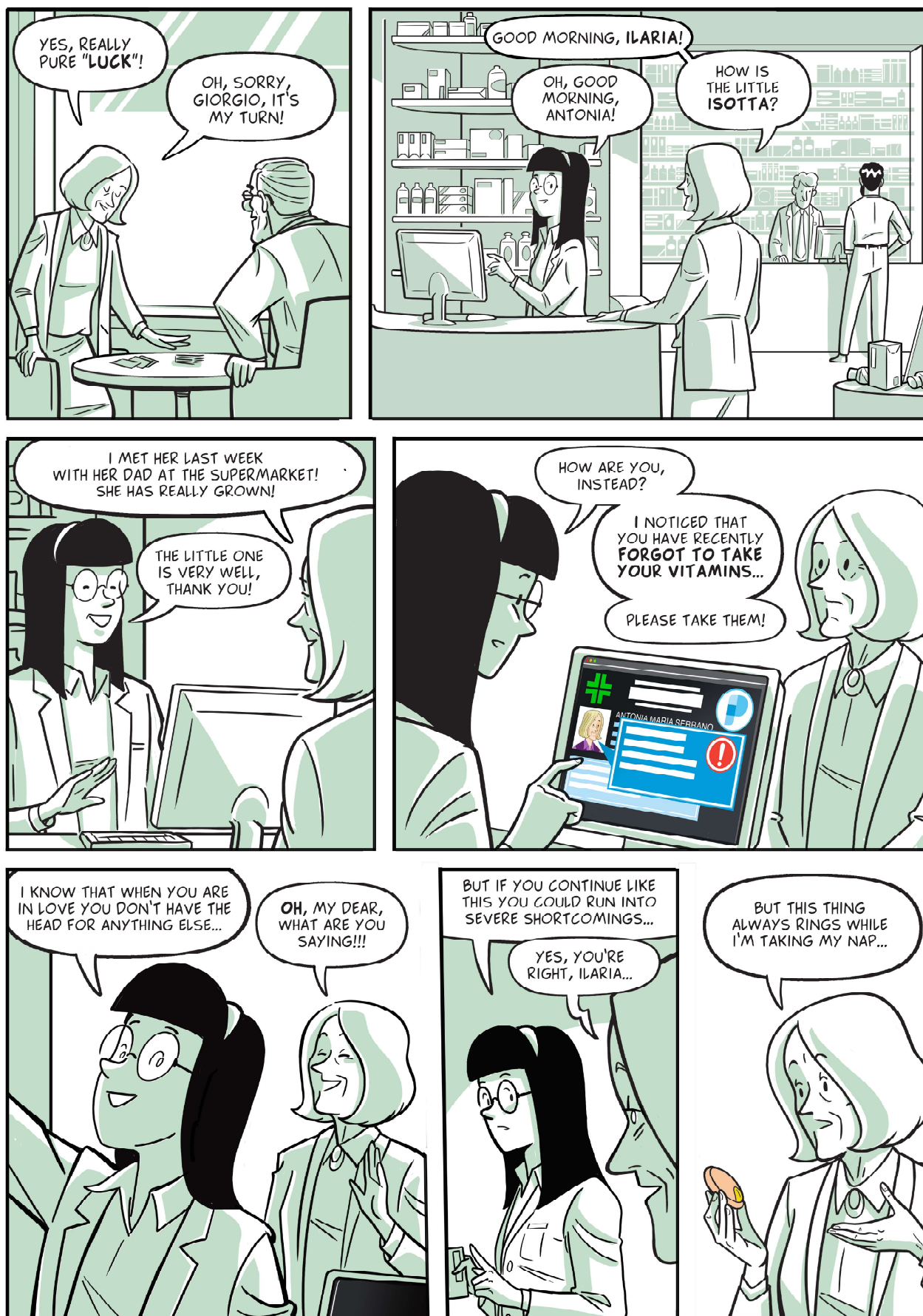
SCENE 4

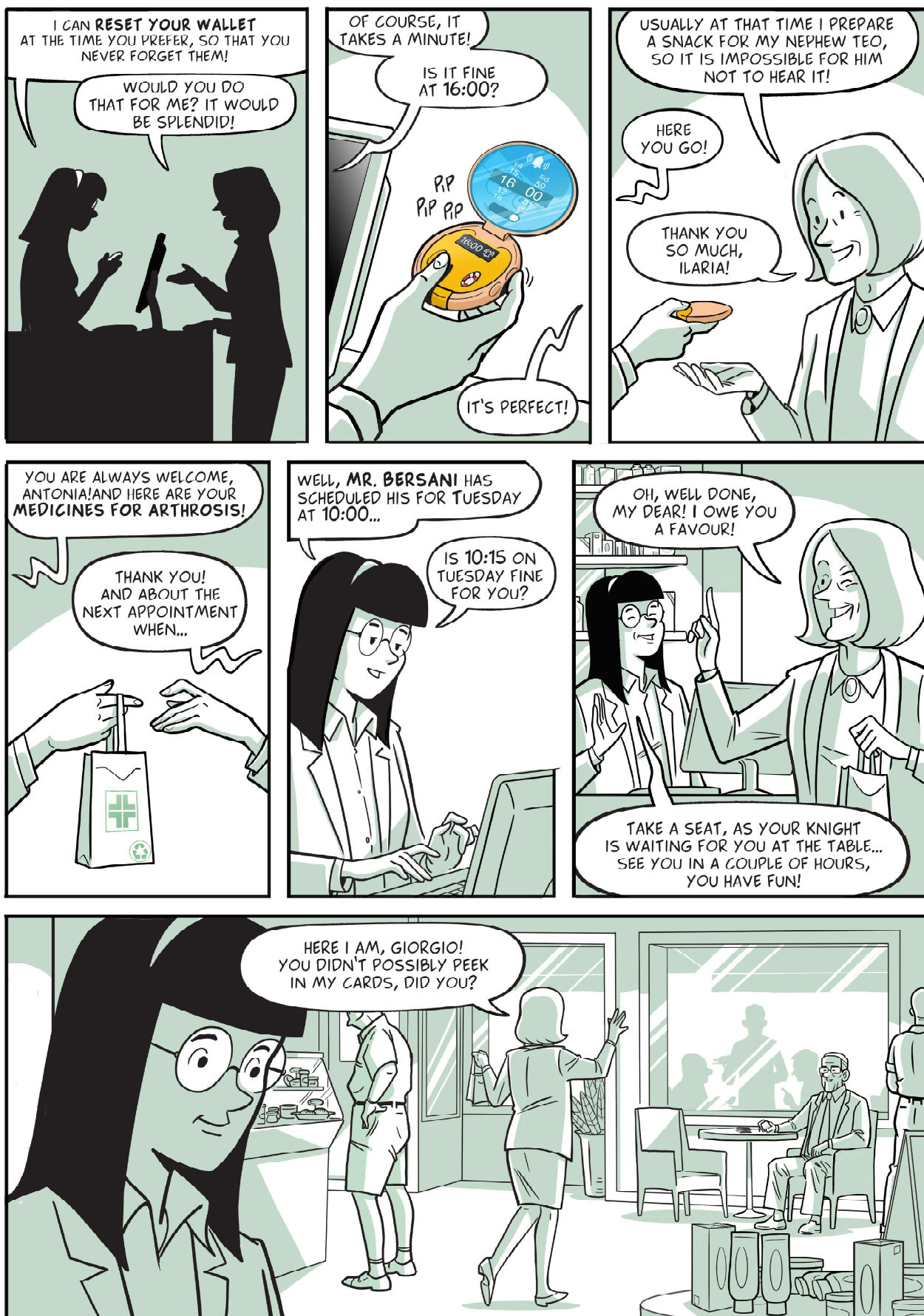
Antonia and her new life in the pharmacy

After the operation, her son Stefano became increasingly apprehensive and worried about her health, to the point that he almost didn't trust to leave her alone, so Antonia finally decided to subscribe to the pharmacy in the neighborhood, in order to take advantage of unlimited assistance and periodic checks scheduled and customized according to her needs. In fact, lately she started to take several drugs, so these appointments in the pharmacy became more and more frequent; moreover, she categorically refused to buy a 3D printer, which was not convenient at all for a single person and which, in any case - she kept telling her son - she would not know how to use. And after all, those visits to the pharmacy did not displease her at all; indeed, she even began to like it. After the death of her husband, Antonia often felt alone and since she had stopped working after so many years spent in the office she had a lot of free time, which she would like to spend with a company. In this sense, starting to go to the pharmacy turned out to be her real turning point, offering her the opportunity to find old friendships and build new ones.

That morning, as always, she finds Giorgio waiting for her, to keep her company during the monitoring interval after taking her arthrosis medication. At their specific request, in fact, the pharmacist had been kind enough to fix their appointments at the same time, so that for some months now they spent every Tuesday morning together, playing chess or sipping hot tea on the comfortable sofas of the pharmacy. "Good morning Ms, how is little Isotta? I met her last week at the supermarket with your husband: she has really grown up!" "Good morning Mrs. Stocco! The little one is very well, thank you. How are you? I noticed that you have recently forgot to take your vitamins...Please take them! I know that when you are in love you don't have the head for anything else - replies the pharmacist, winking benevolently in Giorgio's direction - but if you continue like this you could run into severe shortage..." "You're right - Antonia sighs - but that thing always rings while I'm taking my nap..." "Don't worry Antonia, I can reset your wallet at the time you prefer, so that you never forget them. Is it fine at 16.00?" "Perfect! Usually at that time I prepare a snack for my grandson Teo, so it is impossible for him not to hear it. Thank you so much!" "You are always welcome, Mrs. Stocco. Please give me your wallet to fill in your medicines for arthrosis; take a seat, as your knight is waiting for you at the table... See you in a couple of hours, you have fun!







Chapter 01

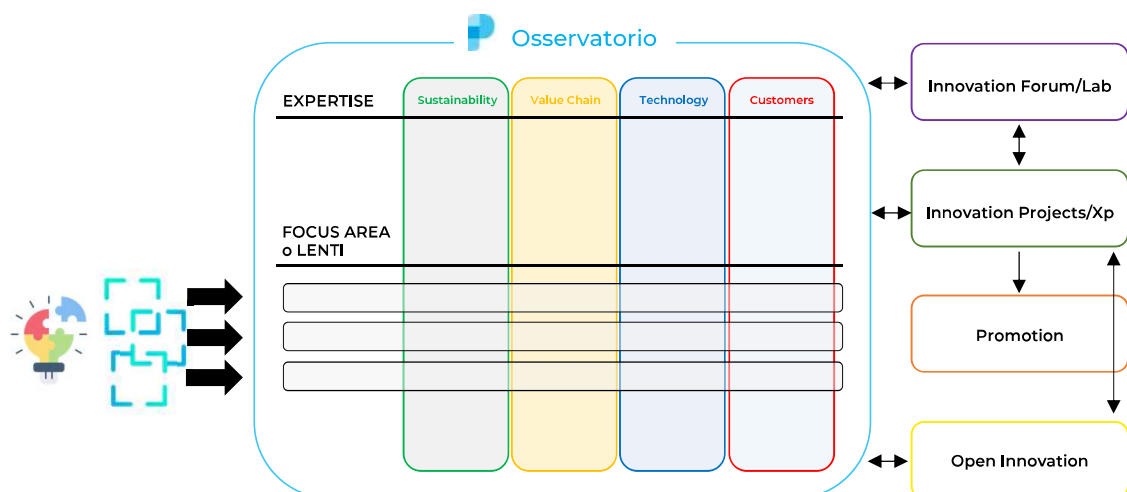
Introduction

Considering the nature of the intervention to which we are called to respond - the future of packaging with the specific intent to direct the research plans with a view of innovation of Palladio Group - the dossier that is introduced here aims to clarify the main results of the analyzes carried out.

After a brief introduction on the main functions of packaging, the report will review the topics explored in the intelligence phase with the presentation of a scouting of case studies, belonging to the packaging & pharma sector or adjacent sectors, which have intercepted and interpreted the identified trends in an original way.

The nature of the identified trends is specifically socio-cultural, attentive to changes in society, to the emerging needs of consumers and professionals.

In conclusion, the role of research in the process of identity, cultural and strategic change undertaken by the Palladio Group is explicit.



Above: Palladio Group innovation observatory structure

Wrapping vs. Packaging

By **wrapping** we mean the product, made up of materials of any nature, used to contain certain goods, from raw materials to finished products, to protect them, to allow their handling and their delivery from the producer to the consumer or to the user, and to ensure their presentation.

The focus is on functional and logistic aspects.



Above, source: European Directive 2004/12 / EC on packaging and packaging waste, implemented by Italian law in the Consolidated Environmental Law (TUA, Legislative Decree 152/2006) in art. 218, paragraph 1.

Packaging: “Where, on the contrary, it is a question of the convincing and persuasive dialectic, of concealing and showing, when the rhetorical art of modifying the behavior of the recipients is involved, [...] where in these syntactic registers of graphics, in short, in general, in all places and ways where the product meets the consumer’s imagination, then visual communications will play a main role, and the design object will be called packaging.” (Anceschi, 1992)

L'attenzione è posta sugli aspetti funzionali, logistici e comunicativi.



Above, source: European Directive 2004/12 / EC on packaging and packaging waste, implemented by Italian law in the Consolidated Environmental Law (TUA, Legislative Decree 152/2006) in art. 218, paragraph 1.

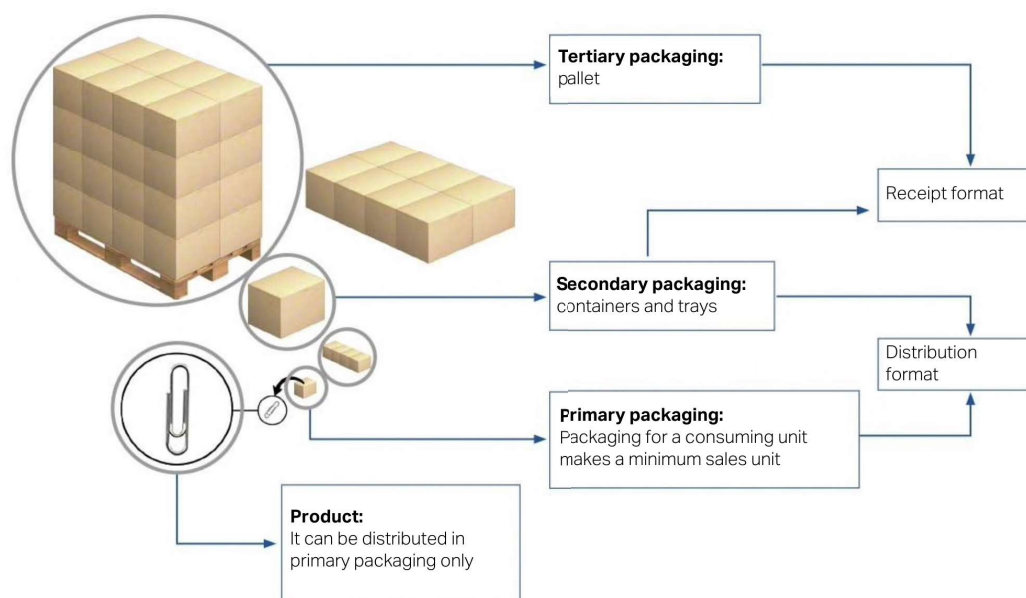
Primary, secondary and tertiary packaging

From a technical point of view, it is possible to distinguish and identify three different types of packaging: primary, secondary and tertiary.

The **primary packaging** constitutes the sales unit itself intended for the end user. It may contain or coincide with the immediate packaging, or the one that is directly in contact with the product to preserve its hygiene; it can also be selective, i.e. able to let some external agents pass, blocking other harmful ones

Secondary packaging is the one that groups a certain number of sales units, representing an important element in the concept of packaging, especially when used to display products in stores. One of its peculiarities is that it can be removed from the product without modifying its characteristics.

The tertiary packaging, on the other hand, is mainly used for transport. It includes both the pallets used for handling large quantities of goods, and the packages and bags used by the end customer to bring the purchases home.



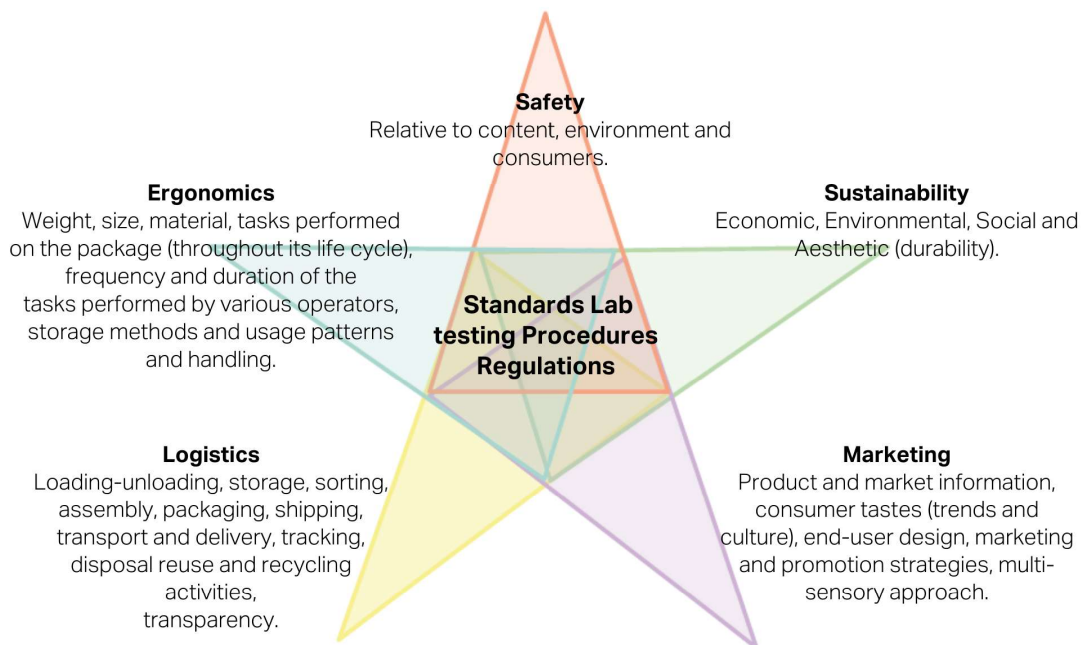
Above: classification of the types of packaging

Main Functions

The main function of packaging is to **contain, care and protect** the products during transport and their distribution.

However, the evolution of consumers and their needs has brought with it the need to satisfy other requirements, which go beyond mere logistical aspect to focus more on **marketing and communication**, without excluding the importance of **usability and environmental and ethical issues** that are increasingly important to consumers.

In addition to the functional aspects already mentioned (logistics), the importance of those elements that make the packaging resealable, tamper-proof and easier to use (**safety and ergonomics**) is also emphasized. Finally, the aesthetic components also consider the shape, size, materials, colours, the presence of any written parts or images and graphics in general.



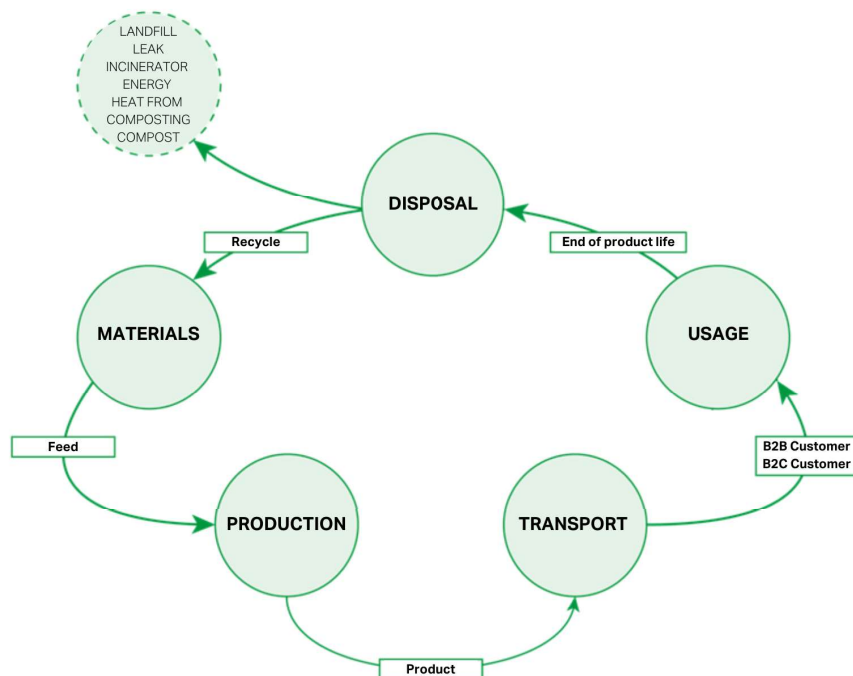
Source: A. Azzi, D. Battini, A. Persona e F. Sgarbossa, Packaging Design: General Framework and Research Agenda, in «PACKAGING TECHNOLOGY AND SCIENCE», N. 25, 2012: 435-456

Life cycle of the packaging

Figure 1 shows the **different stages of the packaging life cycle**: materials, production, transportation, use and disposal.

For simplicity, in this figure, the transport phase is represented only once, although it is intended as a collection of all transport contributions present in each of the five phases of the identified packaging life cycle.

Specifically, by transport contributions present in each of the five phases of the packaging life cycle we mean: the transport of raw materials to generate materials / semi-finished products, the transport of materials / semi-finished products to production, the transport of products to the distribution / sales chain, the transport of the products sold from the point of sale to the customer, and the transport of the product at the end of its life to the disposal centers.



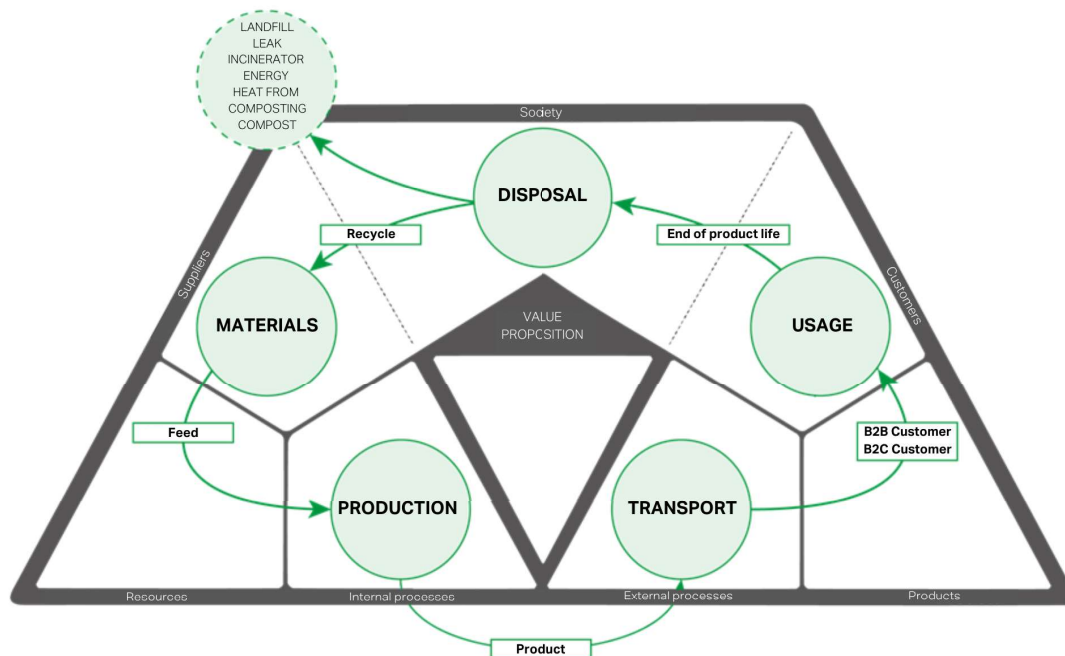
Above: Figura 1. Different phases of packaging life cycle

As can be seen in Figure 2, the coincidence between the phases of the life cycle of a product and the **circularity included in the Canvas Business Model** is evident.

The Canvas is a graphic tool useful for visually representing a business model. In fact it shows synthetically the overall operation of the company and defines the structure of revenues and costs. Within the Business Model, the suppliers, the distinctive resources employed by the company and the activities that lead to the transformation of these resources into products and services (internal processes) and their distribution and sale on the market (external processes) can be identified. Furthermore, products, customers and strategic

relationships with other clients e relazioni strategiche con altri *stakeholder* (società). Oltre agli aspetti funzionali già citati (logistica), si cita anche l'importanza di quegli elementi che rendono il packaging richiudibile, a prova di manomissione e più facile da usare (sicurezza e ergonomia).

Le componenti estetiche infine, considerano anche la forma, la dimensione, i materiali, i colori, la presenza di eventuali parti scritte o immagini e la grafica in generale. Al centro del modello si trova, infine, la proposta di valore, ovvero l'elemento distintivo che l'azienda offre ai propri clienti e che le permette quindi di distinguersi dai *competitor*. In sostanza, si tratta quindi della rappresentazione di



Above: Figure 2. Different phases of the packaging life cycle coincides with the building blocks of Canvas Business Model

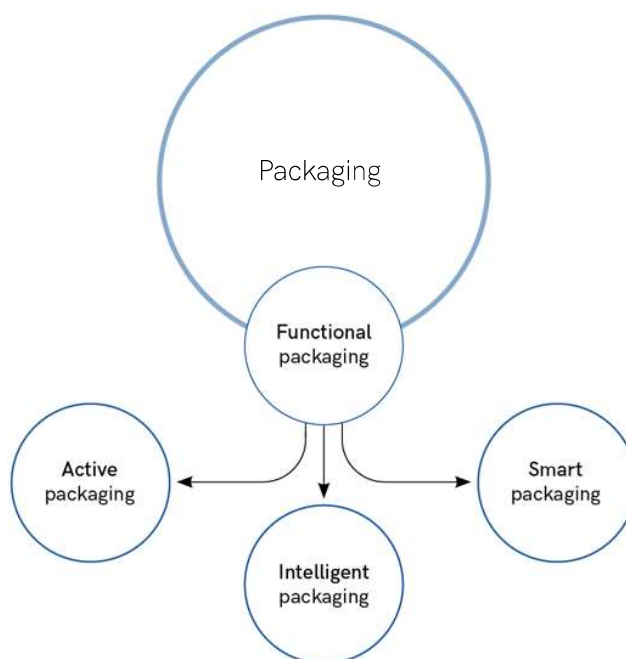
Functional Packaging

The aim of **functional packaging** is to adapt the performance of the package to the particular needs of a specific product: the packaging and the content are not considered as two separate entities, but as elements that can interact to improve the acceptability of the packaged product.

Among functional packaging, “active”, “intelligent” and “smart” packaging stand out. Here are their main features:

- active packaging: they are designed to release / absorb substances that slow down the deterioration of the packaged content;
- intelligent packaging: they are able to convey additional information on the identity of the product and to monitor some characteristics in relation to the external or internal conditions of the package through variable indicators automatically;
- smart packaging: they guarantee conditions of use, transformation and consumption of innovative products, so as to favour the consumer. They are able, for example, to develop heat to warm the content or, vice versa, to keep it cool.

Specifically, as far as **active packaging** is concerned, with this expression we mean all those packaging solutions that stably interact with the internal atmosphere of a container, varying the qualitative and quantitative composition of the headspace (packaging headspace), through the release of antimicrobials, antioxidants or other useful substances, or the absorption of other particles in order to preserve the product contained and its properties for a longer time.



Source: The words of packaging – Reasoned glossary for the packaging system (2009).

Active packaging always has as its objective the removal of an unwanted or undesirable element (for example, considering the food sector, the C₂H₄ in fruit or the O₂ present inside the packaging) and the addition of certain substances that increase the shelf life of the product (for example, the introduction of CO₂ to inhibit microbial growth).

By law, active materials cannot modify products in such a way as to be able to deceive consumers, for example by masking their deterioration.

For **intelligent packaging**, on the other hand, a packaging system is indicated that predisposes the use of internal and external indicators to the packaging itself capable of representing the history of the packaged product, its supply chain from producer to consumer, showing exactly its level of conservation, quality and maturation.

They are divided into:

- time-temperature indicators;
- freshness indicators;
- gas indicators;
- thermochromic inks;
- RFID chip.

Intelligent packaging is a complex apparatus equipped with technological devices capable of performing functions such as detection, warning, registration, traceability and communication. This has the purpose of facilitating the decisions of the users who use the product, contributing to the extension of its duration, improving its safety and, finally, warning about the arising of any problems. By regulation, smart

materials must not provide information in a way that misleads or deceives consumers.

By **smart packaging** we mean all those solutions that provide new, better and simpler conditions for the use of the packaged product than traditional packaging.

They are divided into:

- self-heating packaging;
- self-refrigerating packaging;
- packaging to go;
- instrument packaging.

They have the aim of improving the so-called convenience of the final consumer. They do not have any form of communication regarding the intrinsic qualities of the product nor do they have as their purpose the emission or absorption of substances, but more simply, give the opportunity to use the product more adequately, thanks to the structure and consistency of the packaging itself.

Sources: G. L. Robertson, Op. cit., p. 300. ID, P. T. Takhistov, J. Miltz, Op. cit. Art. 4 par. 4 Reg. (CE) n. 1935/2004.

Sources: G. L. Robertson, Op. cit., p. 300. ID, P. T. Takhistov, J. Miltz, Op. cit. Art. 4 par. 4 Reg. (CE) n. 1935/2004.

Source: L. Piergiovanni, S. Limbo, Food packaging – Materials, technologies and solutions; Reg. (CE) n.

The emotional element

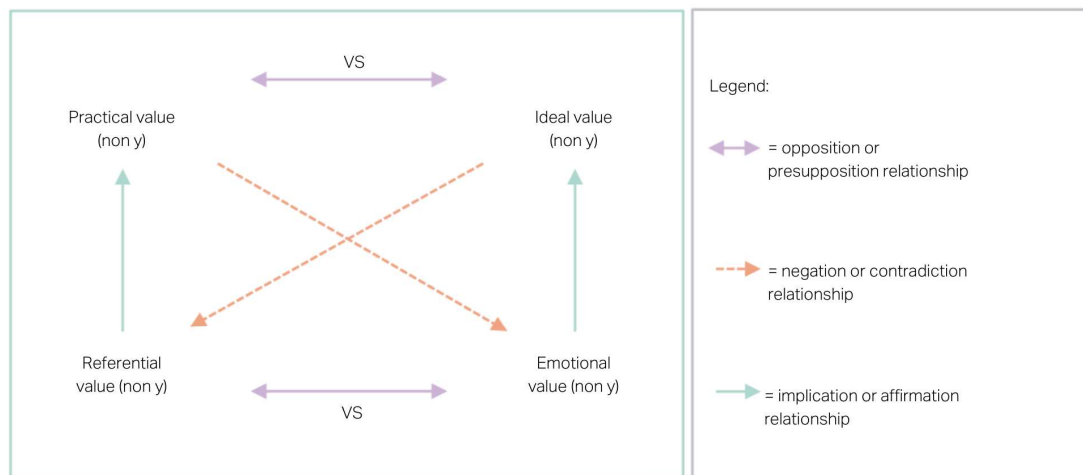
Emotional packaging is conceived, designed and created to give added value to the experience of buying and using a product. These are packaging that can create an emotional and sensorial bond with consumers, amaze them and very often conquer them. To do this, emotional marketers use a variety of means: colours, images, sounds and, sometimes, even olfactory and tactile elements. Anything that can stimulate the senses and generate emotion contributes to making the commercial strategy more effective. Furthermore, there is a common element at the base: storytelling.

In the most competitive areas such as, for example, the Beauty or Food sector, it is necessary to exploit all possible communication channels to reach the consumer. Packaging is also one of these channels.

From a research on packaging in the consumption process (Pastore, 2004) we report a diagram (Figure 3) useful for understanding the semantic field of packaging and the structuring of the value it conveys.

The figure in question carries out an analysis of the particular 'semantic field' of packaging, describing its 'basic axiology', that is identifying the four value vectors involved in creating the overall value perceived by the consumer.

These are mutually defined on the basis of the links between them of opposition, negation and implication, that is, the practical value, the ideal value, the referential value and the emotional value.



Above: Figure 3. The semantic field of packaging

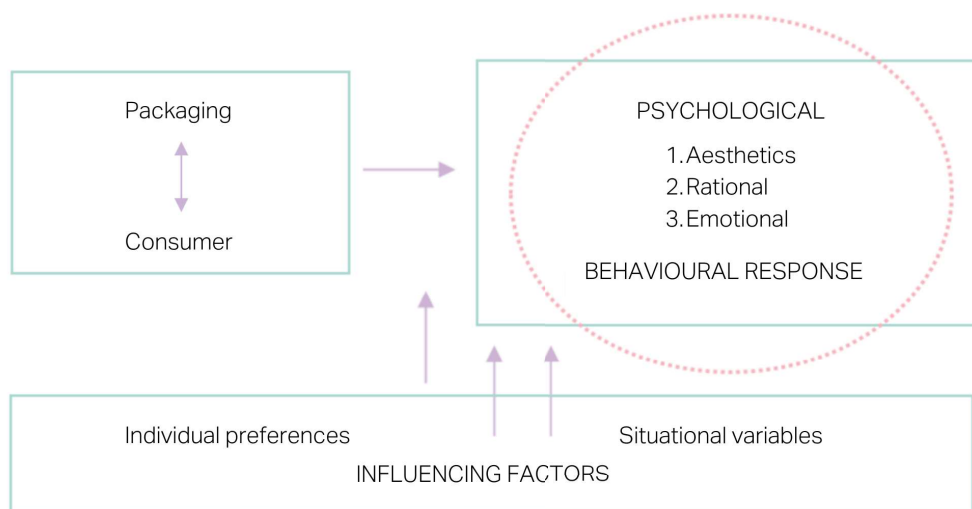
The **practical value** concerns the aspect of the functionality of the package captured in the phase of use of the product, which depends above all on its tangible characteristics in relation to the shape, material, volumes and organization of the different parts.

The practical value is effectively expressed in the attributes of portability, reclosability, shelf life, bulk, but also in the completeness of the information on how to use the product.

The **ideal value is the opposite of the practical value**; in fact, it includes tensions towards high values or moods, mental constructions of a desired image of the self, associations with ideal lifestyles, which in different ways can be connected to the interaction between consumer and packaging. It strongly depends on the marketing communication context built around the product, the brand image, socio-cultural influences and, last but not least, the characteristics of the consumer.

The **referential value is the negation of the ideal value and the opposite of the emotional value**. It concerns the exercise of a critical evaluation in the practice of consumption such as the cost / benefit analysis and the quality / price ratio or the detailed examination of the different attributes of the product (for example, by carefully reading the detailed information on ingredients or nutritional values).

Finally, **emotional value is the negation of practical value**. The emotional enhancement of packaging can refer to dimensions such as self-gratification (hedonism), playfulness, stimulation of curiosity, excitement or relaxation. This vector is developed with appropriate iconic and linguistic choices inherent to the semiotic surface of the packaging.



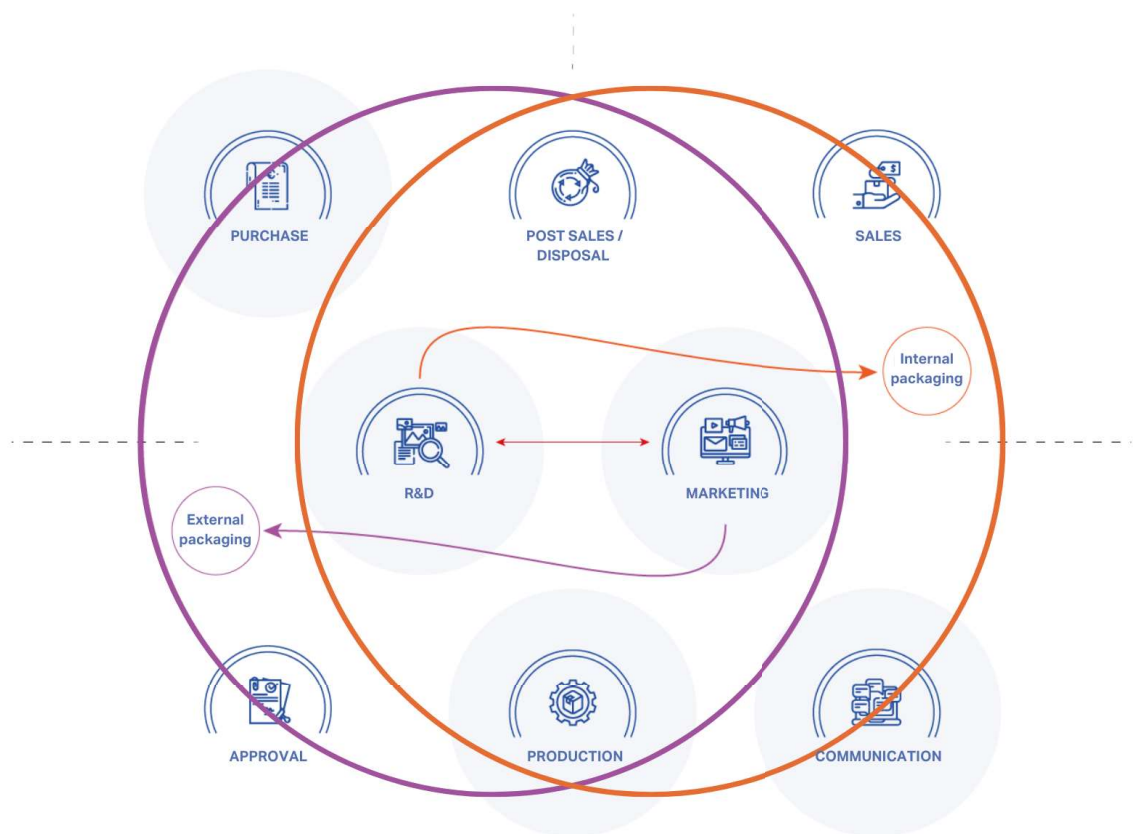
Above: Figure 4. Stimulus-response model applied to the packaging-consumer interaction

Functional Packaging and Emotional Packaging

From the graphic scheme represented in Figure 5, it is possible to observe which are potentially all the business units involved in the packaging development process.

- Functional Packaging
- Emotional Packaging

What is often noticed in business realities is a low grade coordination between the two central areas (R&D and Marketing). As will be observed later, however, the packaging that wins the most important prizes at the international level works on both areas in a transversal way, thus managing to work in a coordinated way both on functional and emotional aspects.



Above: Figure 5. Company departments involved in packaging design

Principles of Ecodesign






Traditionally, packaging design has had a subordinate role to product design and production systems; only in recent years has its strategic role been recognized both in theory and in practice.

In fact, it was found that packaging design has an important impact on the costs and performance of the entire supply chain as well as on the appeal of the product from the point of view of the final consumer.

This made it necessary to develop innovative design ideas, coherent with the current context in which we live.

New needs for sustainability and experience emerge that involve not only the content but also, and above all, the container.

In recent years, various organizations in the sector have set up particularly innovative annual packaging awards.

| Prize | Website | Description |
|---|--|--|
|  ADI ASSOCIAZIONE PER IL DISEGNO INDUSTRIALE | adi-design.org | Organized by ADI, it is an award designed to enhance the most innovative products of the Italian packaging sector. The award aims to gratify not only the materiality of the packaging, but also its intangible aspects: the production process, industrial and aesthetic, on the leitmotif of innovation and research. |
|  pentawards | pentawards.com | Founded in 2007, Pentawards is an annual packaging design competition and online hub for packaging designers. Participants include designers, freelancers, design agencies, communication and advertising agencies, brands, packaging manufacturers and students. |
|  BEST PACKAGING | istitutoimballaggio.org | The Packaging Oscar - this has been its name since 2017 - it is a contest created by the Italian Packaging Institute and has been held every year since 1957. The aim is therefore to track down and reward solutions - packaging, packaging machines and systems - capable of transmitting the concept of safety and ethical values connected to the world of packaging in the most effective way. |
|  reddot design award | red-dot.org | Prestigious international award, it is undoubtedly the most important design award given worldwide to date. It is organized by a German organization, the Design Zentrum Nordrhein Westfalen. Various categories are awarded, including packaging. |
|  iF DESIGN AWARD 2021 | ifworlddesignguide.com | The iF Product Design Award was introduced in 1954 and is awarded annually by the iF International Forum Design. Each year, it attracts more than 2,000 products from around 37 nations, which are judged by internationally renowned experts to identify the seal of exceptional quality. The best of all are awarded with an iF gold award, known as the "Design Oscar". This award is also divided into categories including packaging. |

Above: Table 1. Some of the most prestigious packaging design awards

Some of the organizations mentioned above observe the “manifest” of the Ethical Charter of packaging to award the category prizes.

These values were drawn up by the Ethical Packaging Paper Foundation, together with Dative Editions and the Design Department of the Politecnico di Milano, with the aim of accompanying packaging towards a more conscious future.

Quoting their website, the 10 principles of the Ethical Packaging Charter for good design are listed below:

“We designers, producers, transformers, experts in the sector, consumers, users, intend to think, design, produce, demand and use packaging that is:

1. Responsible;
2. Balanced;
3. Safe;
4. Accessible;
5. Transparent;
6. Informative;
7. Contemporary;
8. Far-sighted;
9. Educational;
10. Sustainable.”

| Principles of ecodesign | |
|-------------------------|--|
| 1 | Provide production with the use of renewable and clean energy |
| 2 | Use of materials from responsible sources (renewable raw materials) |
| 3 | Production waste must be minimized and not impacting the nature |
| 4 | Provide easy recycling and reuse of production waste |
| 5 | Design the container to be able to protect the contents |
| 6 | Design the container so that logistics have the least environmental impact |
| 7 | Design the container with materials consistent with the scope of the product |
| 8 | Reduction in the number of materials and components |
| 9 | Facilitate disassembly and disposal |
| 10 | Use recycled materials as a priority |
| 11 | Design the container so that it can be reused after purchase |
| 12 | Modularity |
| 13 | Ergonomics |
| 14 | Functionality and creativity |

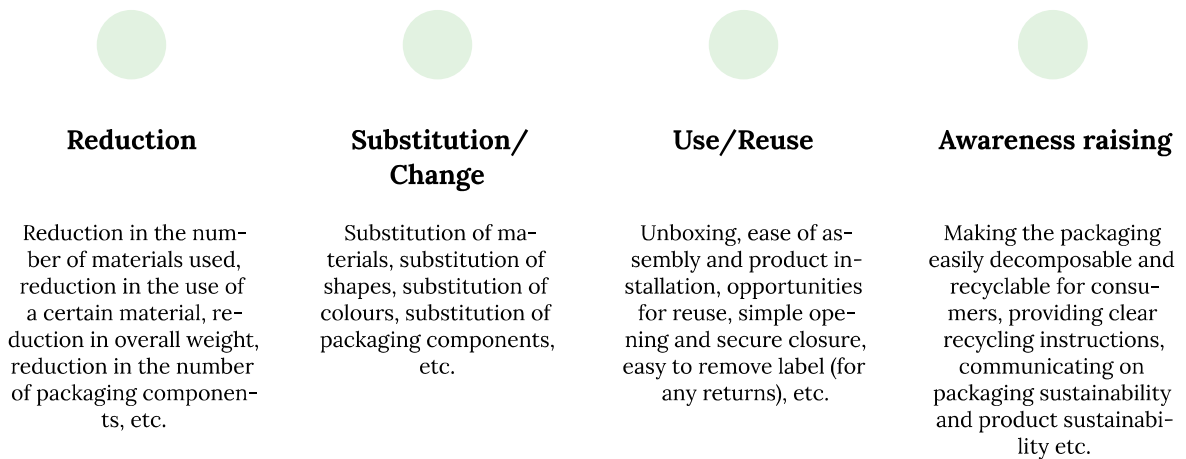
Above: Table 2. Ecodesign principles for sustainable packaging.

Below: Figure 6. Clustered Ecodesign Principles (Environmental Responsibility)

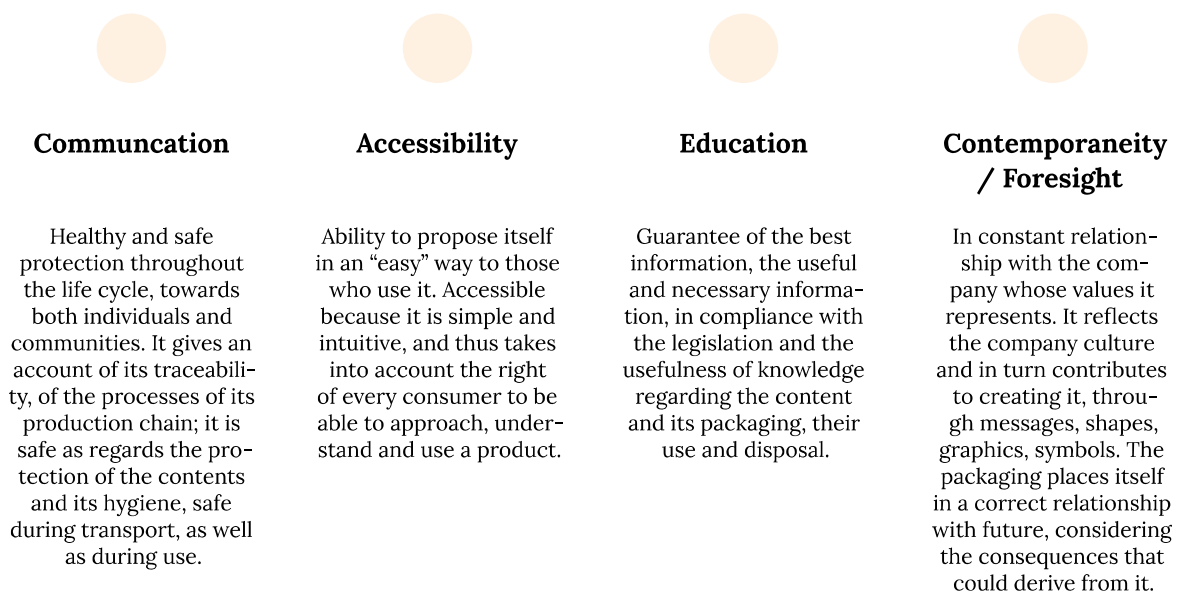
Below: Figure 7. Clustered Ecodesign Principles (Social Responsibility)

Therefore, to accompany the packaging towards a conscious future **it is necessary to think both in terms of social and environmental responsibility.**

Principles of ecodesign (environmental responsibility)



Principles of ecodesign (social responsibility)



Stakeholders and needs: Conceptual framework

In conclusion, when it comes to packaging it is important to consider the needs and expectations of all the *stakeholder* involved, from the customers and brands up to the organizations that deal with waste disposal.

Below: Table 3. Reworked by Simms C, Trott
P. Packaging development: A conceptual framework for identifying new product opportunities. Marketing Theory. 2010;10(4):397-415.

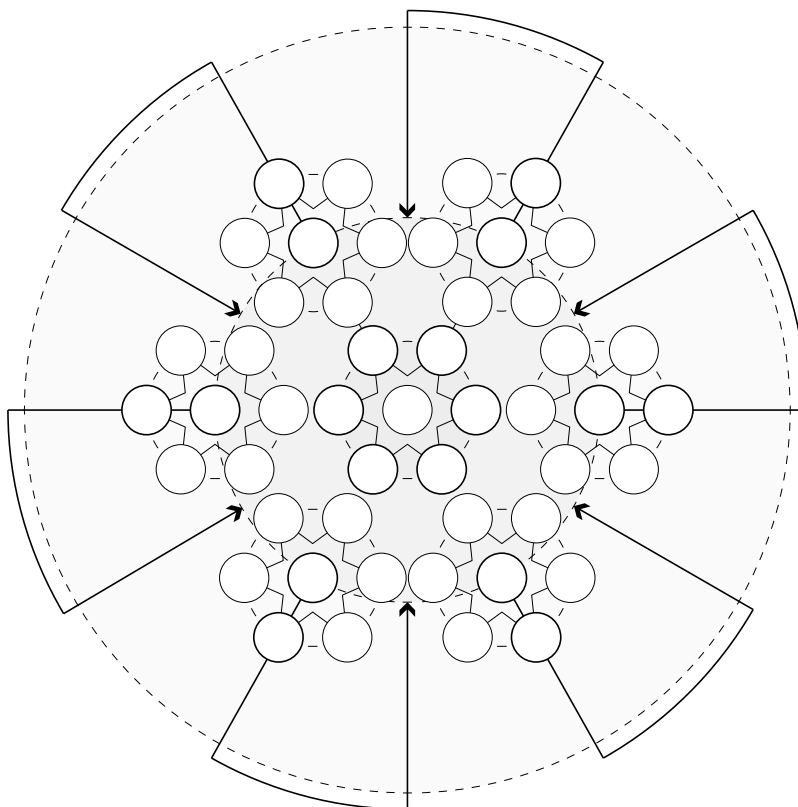
○ Functional Packaging
○ Emotional Packaging

| | |
|-----------------------|--|
| Brand owner | <ul style="list-style-type: none"> • Minimization of costs and use of materials; • Perception as green by the public; • Promote the product to the consumer and ensure the visual appeal; • Identification of the product by the consumer; • Effectively protect the product; • Effectively contain the product; • ... |
| Consumer | <ul style="list-style-type: none"> • User-friendly, operability, reclosability, transport and delivery structures; • Appropriate dimensions and quantity; • Informations/instructions about the product; • Hygiene and safety in use; • Minimum environmental impact of use; • Attract attention and identify the product; • Visual appealing; • Product positioning and help in choosing. |
| Recycle | <ul style="list-style-type: none"> • Materials with low impact and recyclable; • Minimal packaging (weight and volume); • Possibility of easy separation of other recyclable and non-recyclable materials; • Identification of the product and of the recycling method/elaboration; • Possible riuso of the packaging; • ... |
| Intermediaries | <ul style="list-style-type: none"> • Minimization of the dimensioni and the peso; • Easy to handle; • Maximum protection in the handling and minimization of breakages in storage; • Easy identification of the product (ref. tertiary); • ... |
| Retailer | <ul style="list-style-type: none"> • Easy handling and time to shelf; • Method and effectiveness of products exposure; • Ability to vendita del prodotto con il minor supporto di personale; • Receipt of the product in optimal conditions; • Need of home delivery; • ... |

Chapter 02

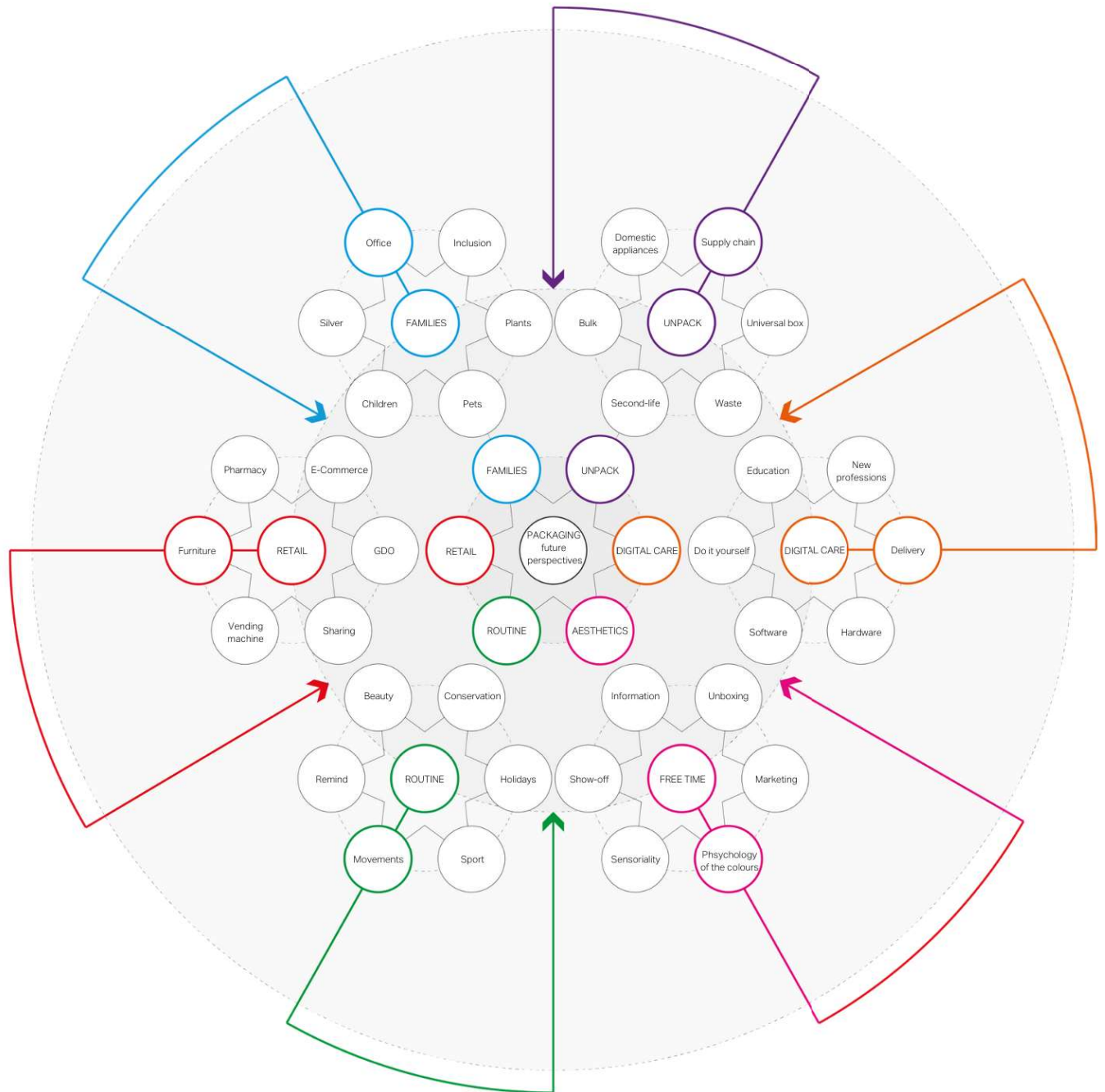
Intelligence

To structure the desk research, a tool designed by Strategy Innovation was used called the ARCHIPELAGO. It is a framework through which the Intelligence process concerning a particular starting point is outlined and visualized. This is thus broken down into 6 topics, each of them in other 6 sub-topics and related case studies. What is often noticed in business situations is a low degree of coordination between the two central areas (R&D and Marketing). As will be observed later, however, the packaging that wins the most important international awards work on both areas in a transversal way, thus managing to work in a coordinated way both on functional and emotional aspects.



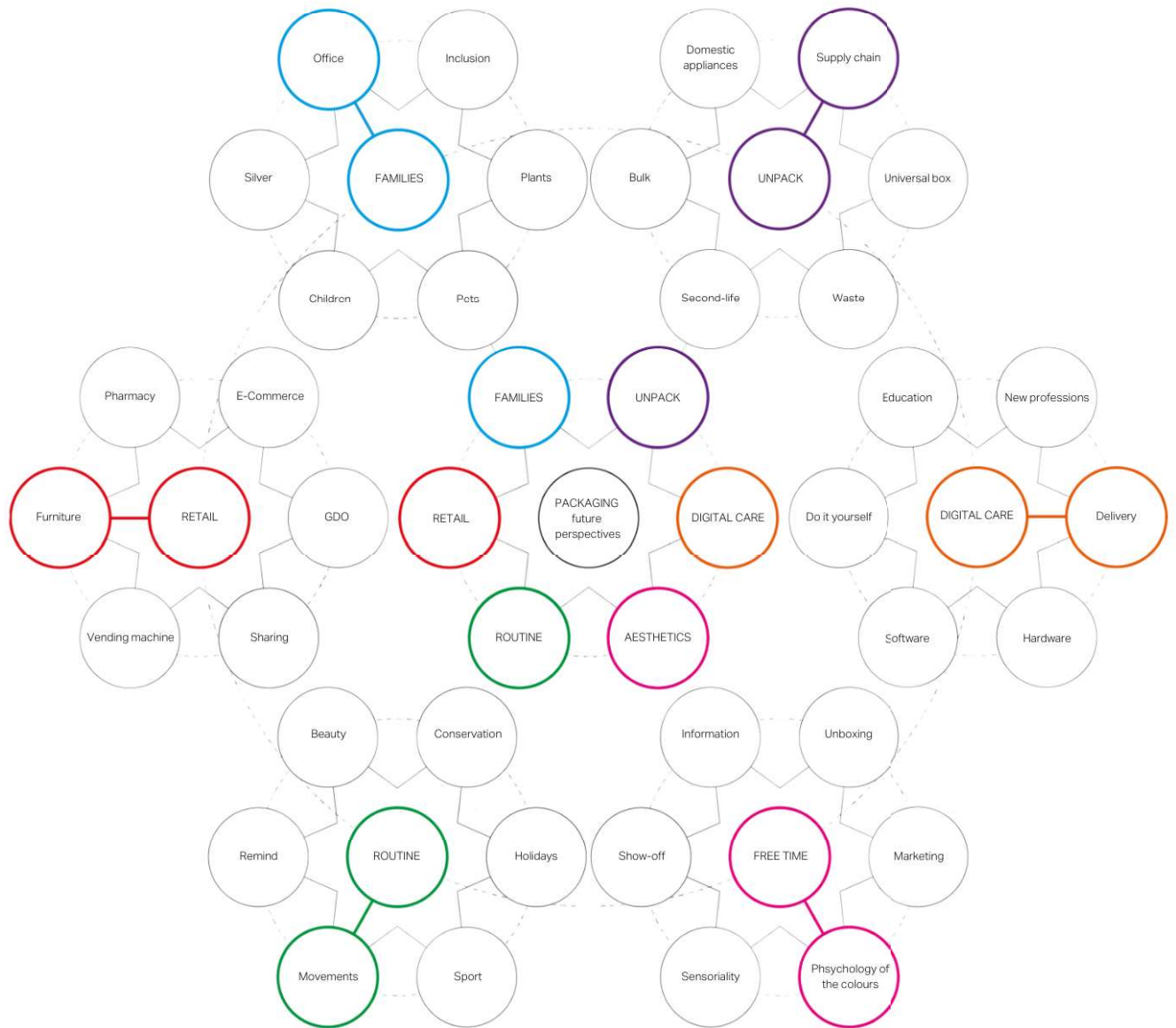
6 topics
36 sub-topics
50 case studies

Output:
6 lenses



Above: Archipelago with the emerged topics

Focus on the topics



Above: topics emerged from the Archipelago

An overview of the macro context

It is more and more necessary to focus attention on all the factors that are constantly changing and over which it is difficult to establish certain control. These are mainly demographic, economic, socio-cultural, environmental, technological and political-legal factors. All these factors can represent threats and / or opportunities, and it is for this reason that they must be monitored and interpreted in the best possible way, also evaluating the reciprocal and possible influence of phenomena and elements. Therefore, below is a brief overview of the main factors that act on the macro context to be considered.

The first relevant factor is undoubtedly the **role played by the recent pandemic**. In particular, the Covid-19 pandemic has made clear the inadequacy of our national health system (NHS) in the face of an emergency of such magnitude. This means that the NHS, as it is structured, has not always been able to guarantee community medicine and valid primary care (also due to the past policies of rationalization of regional health that have led to the closure of hospitals in countryside or mountain).

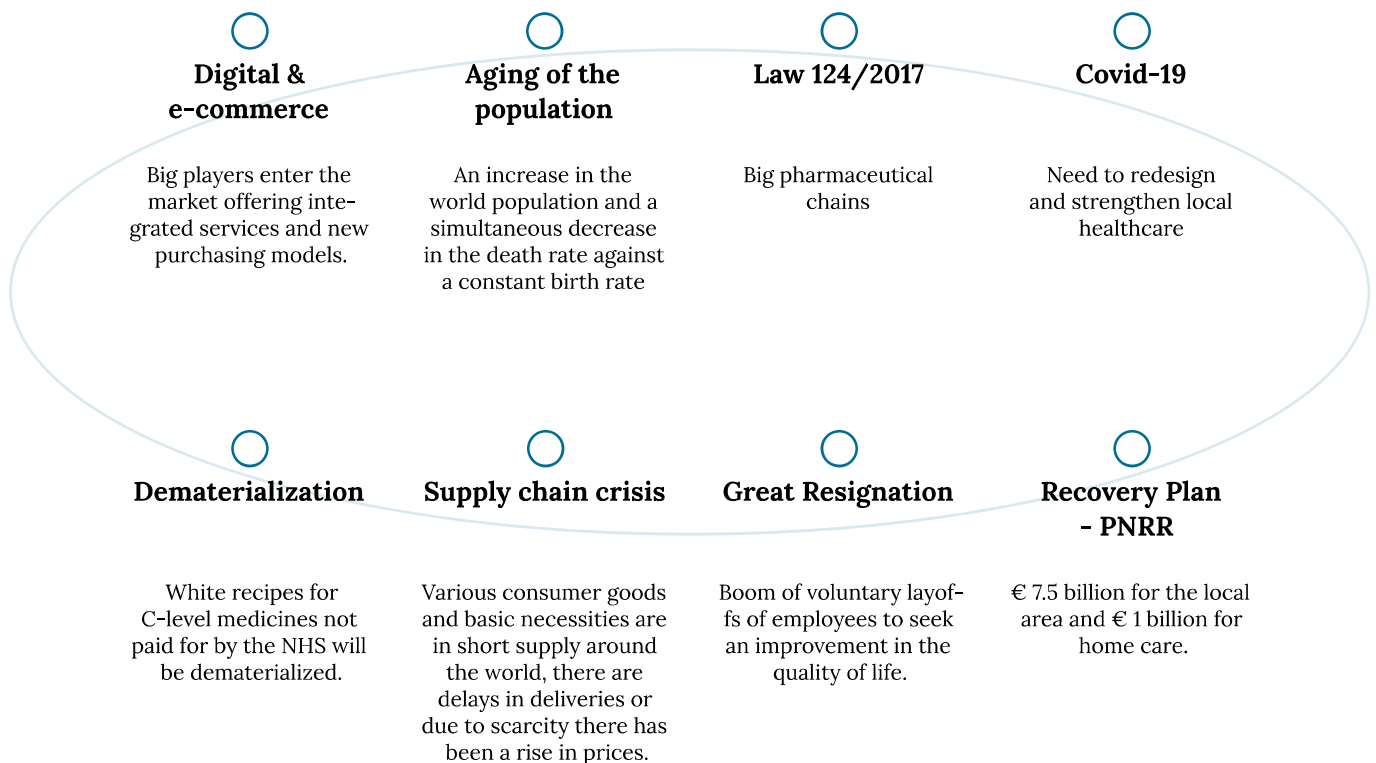
Moreover, if you add to this the large accumulated delay in the transition towards digital transformation models, the need to rethink the entire system of supervision of local communities becomes clear and that it meets the need to provide personalized services through a “digital health” that reaches patients within the home walls. The home will in fact be the first health facility.

Confirming the relevance of this first factor, what has been said was taken up by the **PNRR**, which took the opportunity to build a **comprehensive healthcare reform**. The document, in fact, provides that “By 2026, 1,350 new community homes, 400 community hospitals and 600 territorial operational centers will have to be developed throughout the national territory”. On the other hand, however,

telemedicine is strongly encouraged - treatments directly at the patients’ homes - to which 1 billion euros and digital health are destined, on which about 2.5 billion € are invested to create a homogeneous data infrastructure which collects all the clinical history of patients throughout the country.

Another phenomenon created and amplified by the multiple consequences of the pandemic and the lockdown periods was the rediscovery of the house as the focal point of our lives. In particular, this aspect has brought with it a rediscovery of remote work, the so-called smart working, a form of work, previously almost unknown in Italy.

Below: Figure 8. Overview of the macro context investigation



To date, having emerged from the health emergency, it seems that “smart” work has improved the lives of many, eliminating home-work travel times and improving family relationships. In some cases, this has led families to move out of city centers to smaller centers where the quality of life improves. The described scenario brought with it a particular trend called **Great Resignation**. This is an emerging attitude of some employees to voluntarily leave their jobs to seek an improvement in the quality of their life.

According to the Ministry of Labour, in the second quarter of 2021, almost half a million people resigned voluntarily, not to remain inactive, but to find a more appropriate solution (+ 85% compared to 2020). According to the statistics of the Bank of Italy, this number reaches 770,000 at the end of October 2021.

The macro context overview also leads us to touch on the topic of

the **crisis in the supply chain**, the complex and interconnected transport and supply system on which trade and the world economy are based and which is the central element of globalization.

One of the triggers was certainly the Coronavirus pandemic. In particular, with the first wave of infections, several producers and exporters of goods were hit hard and many factories forced to temporarily close or slow down production. In general, in the first period of the pandemic it was believed that a substantial part of the manufacturing industry would collapse. Consequently, the companies that deal with transport also significantly reduced their shipments, predicting a simultaneous collapse of world trade.

IL FENOMENO

Grandi dimissioni, McKinsey: nel 2022 il 40% dei dipendenti penserà a cambiare lavoro

di Serena Annichini* | 30 mar 2022



Above:

Article by Serena Annichini for [corriere.it](https://www.corriere.it) on 30/03/2022: “Great resignation, McKinsey: 40% of the employees will think about changing jobs in 2022”

Yet this prediction was not fully realized; in fact, only some sectors such as, for example, catering and tourism actually collapsed, but the demand for goods on the part of consumers did not decrease, it rather changed.

Indeed, the population forced to stay at home by the restrictions due to the pandemic began to rethink the place where it was forced to spend most of its time, readjusting it and providing it with every comfort. Many have bought computers, printers and monitors to work from home as well as furniture to organize home offices, TVs, consoles and video games to pass the time, appliances and accessories for cooking at home like in restaurants. In fact, it is no coincidence that **one of the first crises was that of microchips**.

Furthermore, if we consider the fact that the production of the most advanced microchips is concentrated almost exclusively in South Korea and Taiwan, then we can understand how logistics management has been made particularly complex.

In the months following the first wave of the pandemic, as world economies resumed activity, there was a further increase in demand for various types of goods, generated in part by reopening and in part by the fact that the economic availability of many had increased during the *lockdown* period, on the one hand due to the contraction in consumption and on the other due to the expansionary policies of governments, given in the form of bonuses, which had the intention of channeling spending towards some of the most affected sectors. To meet the growing demand, many factories have tried to increase production

but the world system of production, transport and trade has little flexibility and very little margin for error; therefore, the long supply chain has been interrupted or slowed down, and the system has become saturated. In any case, it is an intellectual duty to specify that the *supply chain* crisis has been greatly simplified in its explanation here and that, in reality, the triggers are also to be found **in other serious systemic crises**, which have origins independent of the system of global trade and which are causing other orders of problems, but which contribute to the slowdowns and inconveniences. In summary, these are the sharp increase in the cost of raw materials, the energy crisis, the labor market crisis and the environmental and climate crisis, which brings with it an increase in the probability of extreme weather events, such as floods or periods of great drought. Finally, the Russian invasion of Ukraine represents a new threat to the supplies and prices of raw materials and in 2022 will further complicate the semiconductor supply chain, of which Russia and Ukraine are key suppliers.

At this point, a fundamental **demographic phenomenon** is mentioned, namely the rate of population growth.

The world population is growing exponentially to date we are approximately 7.9 billion people (Worldmeters. It, 2022). This continuous population increase is a source of concern for several reasons: the first is related to the problem of insufficient resources on our planet and the second is linked to the fact that it is a

phenomenon that mainly concerns the poorest areas of the world. The other side of the coin instead concerns a general **aging of the population**. In fact, with the passing of the years and the improvement of the caring skills, the mortality rate has dropped a lot, unlike the birth rate, which has remained almost unchanged. This means that the number of years spent with disabling or chronic diseases is growing.

The last factors that we are going to list are mainly of a political-legal nature: on the one hand, the **dematerialization of medical prescriptions** and on the other, the evolution of the pharmacy as a place increasingly linked to “**commercial**” dynamics. As regards the first factor, with circular letter No. 4638 of 3 March 2022, the Ministry of Economy and Finance (Mef) and the Ministry of Health recalled the rules for the dematerialization of white prescriptions for class C medicines not paid for by the NHS, set more than a year ago. Both master and officinal preparations and narcotic medicines subject to special medical prescription based on a ministerial prescription are excluded from the dematerialized prescription, with the exception of the active ingredients used in pain therapy. The prohibition of remote supply is also relevant to the public of medicines prescription. Therefore, this last point makes us understand well how despite there is a policy of dematerialisation of recipes, in Italy we are moving towards protecting the physical location of the pharmacy for purchase. In any case, today the online world influences every business and it is for this reason that even pharmacies have had to

take on new challenges to keep up with digitalization. In fact, many online platforms have been created in order to offer the same service as the physical pharmacy directly to the final consumer. In addition, from 28 January 2022, with the entry into force of the EU Regulation 2019/6, even non-prescription veterinary medicines are included in the category of drugs that can be sold remotely in Europe, that is via e-commerce. The last factor, finally, refers to Law 124/2017 on competition

which 5 years ago already opened the Italian market of pharmacy properties to joint stock companies and “suspended” the quantitative limits on the number of pharmacies that can be held by a single person.

All this is leading to the crumbling of the concept of the small family-run pharmacy, with an increasingly decisive shift towards a few large players who own a large number of pharmacies.

Below:

Article of the editorial board of ANSA from 01/06/2022

ANSA.it » Economy » SMEs » **Istat: in 10 years almost 2.7 million employed over 50 more**

Istat: in 10 years almost 2.7 million employed over 50 more

Thanks to demographic trends and pension reforms

ANSA Editorial Staff

📍 ROME

01 June 2022
13:35

NEWS

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(ANSA) - ROME, 01 JUN - There are almost nine million workers over 50 in Italy with about 2.7 million more employed (2 million 688 thousand) compared to ten years ago: according to what emerges from the Istat tables, the employed made this turning point in April 2022 there were 8 million 937 thousand compared to 6 million 249 thousand in April 2012.

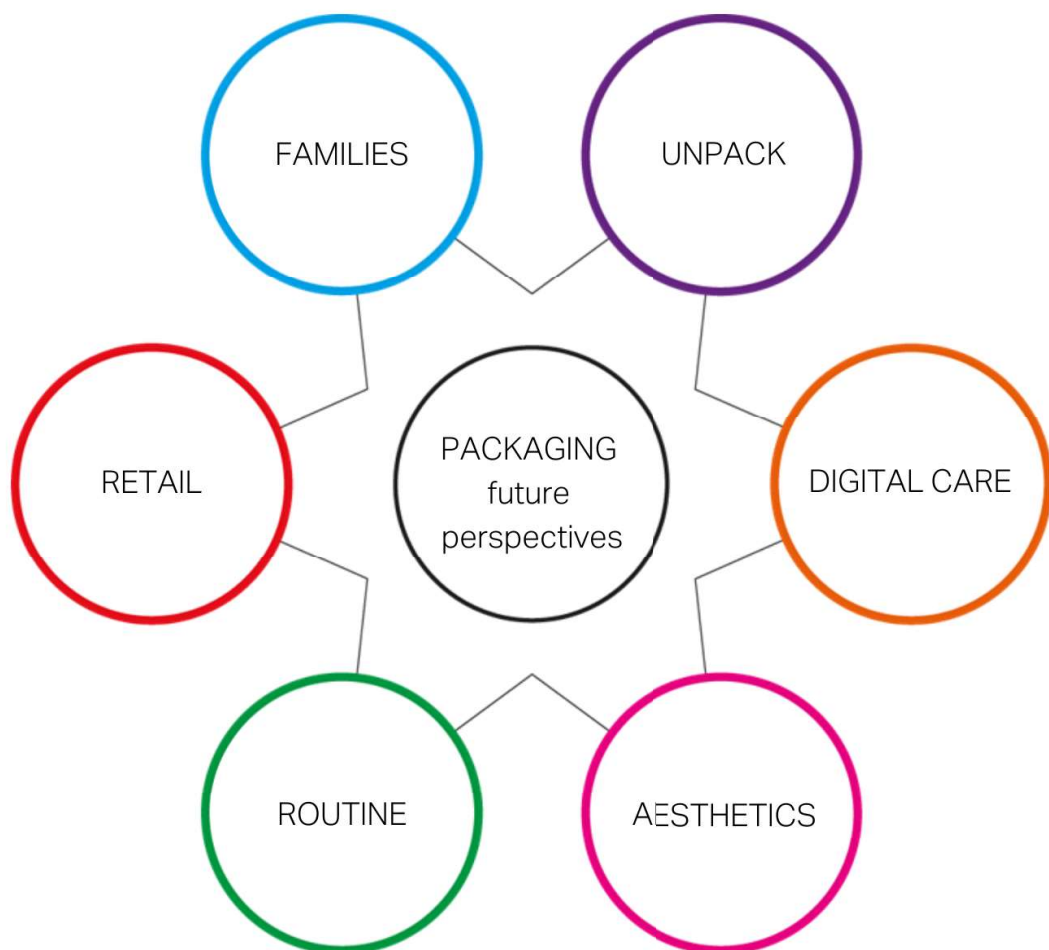
The data must be linked to the demographic trend with the aging of the population, but also to the reforms of the social security system with the tightening of the requirements for access to retirement.

The 6 starting topics

To analyze the topic of the 'packaging of the future' it was decided to investigate the following topics:

1. Digital care;
2. Families;
3. Aesthetics;
4. Retail;
5. Routine;
6. Unpack

Each of these was then divided into 6 further categories. The Archipelago therefore serves both as an index and as a mapping of the entire research desk.



Above: The centre of the Archipelago with the starting topics

Digital care

Digital care understood as “digital health” is the set of information and communication technologies that help manage, sometimes remotely, diseases and health risks, as well as promote health and well-being (Treccani 2021).

With the arrival of new technologies, digital care has also integrated mobile health, medical sensors and patient monitoring devices, and personal digital assistants (PDAs), up to Artificial Intelligence (AI), machine and deep learning, and the most recent Digital Therapies, such as therapeutic algorithms, smart insulin pumps and smart watches that identify episodes of atrial fibrillation. Therefore, the greater availability of technologies and the emergence of advanced solutions for blood, DNA and intestinal microbiome analysis, combined with easy-to-use apps, has accelerated the spread of the digital care issue. The purpose of all these digital tools is to monitor, prevent or assist in the treatment of diseases, as well as optimize health services for patients and doctors, especially in anticipation of the increase in health costs in relation to the increase in the expectation of life of the population. This theme raises interesting questions about the need for new professions in the medical field, which also leads us to reflect on education and in particular on the digital literacy of professionals and patients.

In fact, the model of care that is emerging today has as its main feature the breakthrough of the digital within the processes, paths and methods of interaction between doctors and patients. From this point of view, digital literacy is needed to train competent professionals capable of using all the tools that technology makes available today.

In Finland, for example, where a precise national policy regarding digital health is implemented (eSocial and eHealth strategy 2020, “Information to support well-being and service renewal”), there is great attention in building the correct skills in this context, and for several years, digital literacy courses have been included in the curricula for medical students. In Estonia, on the other hand, digital literacy is part of the general curriculum of all citizens, through the work of the Look @ world organization. Therefore, training the healthcare professionals of the future, introducing new technologies into therapeutic paths, systematically analyzing Big Data to revolutionize prevention and treatment policies represent the necessary basis for implementing the reform of the NHS and keeping up with the evolution of the global health care.

Below: packaging of 1000 pharmacies

In our opinion, another essential element when it comes to digital care is do-it-yourself, which in turn has brought to the fore a whole series of software, hardware and delivery services also in the health and wellness sector.

In fact, taking care of oneself is one of the behaviors in consumers worldwide that Euromonitor International, world leader in market research, highlighted in its annual report. This trend, therefore, highlights the increasingly marked intention to manage one's own health and wellness path, without necessarily consulting a professional.

This, on the one hand, translates into preventive behavior, on the other hand in the use of hardware and software tools capable, so to speak, of imitating and even “replacing” the doctor's skills. Just think of how in the last year almost everyone has learned how to perform a quick nasal swab in self-diagnostic mode or the popularity of wearable-connected apps for self-monitoring of different parameters such as, for example, FoodMarble AIRE, a device portable to perform breath tests, connected to an application on a smartphone that allows to assess digestion levels (by measuring the levels of hydrogen in one's breath), one's intolerances (in response to four main components: lactose, fructose, sorbitol and inulin) and consequently to adapt their diet.

Finally, as regards delivery, an Italian example is 1000Farmacie, which closed an investment round of € 1.5 million, underwritten by industrial groups and investors, such as Fin Posillipo Spa and Healthware Ventures. The company was born in 2019 with the aim of uniting the best Italian pharmacies, with their respective warehouses, to make available to users the possibility to choose from a wide range of products at the best price and receive them directly at home through the delivery service, but, thanks to Covid, the project has already expanded its offer with the addition of teleconsultation services and diagnostic tests. The platform synergistically brings together about 1000 authorized pharmacies, with the aim of offering consumers the largest assortment available and the possibility of buying safely online directly from trusted pharmacies.



Therefore, in the last decade we have witnessed a real boom of start-ups in the digital healthcare sector, all with the aim of creating a holistic model that puts the consumer / patient back in the centre.

| | |
|------------------------|--|
| Education | Digital literacy is needed in the health sector, as well as in the social field. Technological solutions are born as a consequence of the new awareness reached by the consumer or to educate the consumer on various issues related to health, sustainability and ethics. |
| New professions | At the same time, new professions develop or the need arises, just as new practices for the use of traditional services or realities emerge. |
| Do it yourself | The new consumer awareness leads them to be a little more 'medical' and a little less patient. It is the era of self-diagnosis but also of the search for alternative treatments (naturopathy, holistic medicine, nutraceuticals, etc.). |
| Hardware | New wearable devices in the field of health care for self-monitoring and self-diagnosis. These are simple and intuitive solutions. Also, VR, AR, AI and robotics technology is increasingly entering hospitals. |
| Software | Advanced systems to help children with difficulties who use the logic of gamification or monitoring and remote assistance systems with AI and machine learning. All with a view to delocalisation of care. |
| Delivery | The pandemic has accelerated the spread of delivery models, as well as subscription models, which are entering all markets across the board thanks to technological development. This is a habit that is destined to remain and to continue to develop with a view to servitization. |

Sustainability



Value Chain



Technology



Customers



Telemedicine

- Delocalization and decentralization of diagnosis, treatment, therapy and monitoring;
- Home as the first health facility;
- *Patient-centric* system;
- New distribution models.

Families

The family topic allows us to identify targets (children, silver, plants and pets) and specific needs (modularity and inclusion) related to lifestyle and the concept of well-being and health, which vary during the life cycle.

If we take children into consideration, the market for early childhood products is of great strategic importance for the pharmacy, despite the contraction it has registered for several years. Analyzing the competitive context of the main segments between the different channels (pharmacy, parapharmacy and supermarket), we note the predominant role of the supermarket, where it develops over 70% of the total turnover. Parapharmacy plays a very marginal role and the remainder, 42.7%, is developed by the pharmacy (PharmaRetail 2020 data). The trend today in children's packaging, in addition to safety, is that of an original, colourful and bold design, which knows how to involve them and which is able to attract their attention.

Thinking by opposites, Italy is a country that is characterized by having a very distant population and with a share of over 65s among the highest in the world: in 2018 they were 13.6 million (22.8% of the total). And they will grow continuously: in 2047, it is estimated that there will be almost 20 million.

The demand generated directly by those over 65 in Italy is relevant: the total value of the expenditure made by this segment of the population is about 200 billion euros, almost a fifth of the entire amount of consumption of resident families. In addition, the Second Istat Report on the housing conditions of the elderly who live in their own apartments, notes that the share of houses with the presence of elderly people is growing to 41%. "The elderly are the category that spends most of their time at home". However, anyone who thinks that silver refers only to the elderly or people with disabilities is wrong. It is a target that is experiencing a second youth and that no longer wants to remain invisible. An example of this is represented by Wile. Wile is a brand whose mission is to reformulate and vindicate the perimenopause conversation. They produce plant-based wellness supplements formulated for women entering what Wile calls the "grown up" phase of life: not old, not young, far from over. They have associated an aesthetically appealing brand design to this mission: «Something happens when women turn 50. We start disappearing from marketing briefings, cultural conversations, retail radars, physician care. »

From a packaging design standpoint, they have fought against this “social invisibility” with bold colors and a series of fluid figures that refer to dynamic physical, mental and emotional states of adult women.



Our animals are also part of the family; according to the data of the Assalco - Zoomark 2020 Report, in fact, 60.3 million animals live in our homes: practically one for each inhabitant and 2.3 for each family. An increasingly numerous presence, especially after the lockdown, which has led more people to choose dogs and cats as life companions, also driven by the greater time spent at home between smart working and flexible hours. In this context, the pet economy is experiencing a real boom. This is confirmed by a survey carried out by the EUrespes aimed at Italian owners of dogs and cats, recording an expenditure of about 50 euros per month with peaks of 100-200 euros. Taking care of your pet is becoming more and more important and for some time the online platforms dedicated to the healthy nutrition of our animals have been multiplying. Nutritionists and dieticians are available to users to identify a new way of eating that is more natural and better suited to their various needs. One example is the Nutravet group, made up of

Below: packaging of Wile

veterinarians passionate about nutrition who offer individual advice.

Another interesting target is the so-called plant parents. The green trend is always spreading in homes. Since indoor plants are much easier to care for than a child or pet, Millennials and Gen Z are among the first to buy them. Furthermore, this trend responds to a real need for well-being inside homes. From this market it is possible to intercept new packaging solutions for the delivery of plants, as well as a very marked focus on sustainable solutions with zero environmental impact.

The last sub-topics concern on the one hand the office and, with the displacement of many workstations in people's homes, this interesting phenomenon concerns above all the birth of innovative and modular solutions to be able to set up an area used for smart working at the domestic level, and on the other hand inclusion. In the latter case, the focus must be on all diversities (gender, ethnicity, culture, disability, intolerance, food choices, etc.). Here, too, packaging plays a fundamental role, both in how it conveys information and in how it educates the consumer.

Education

The new consumer awareness leads them to be a little more 'medical' and a little less patient. It is the era of self-diagnosis but also of the search for alternative treatments (naturopathy, holistic medicine, nutraceuticals, etc.)

Office

The concept of the office has evolved into a place capable of encompassing other needs as well. There is greater attention to the well-being of the worker, whether it is a company office or a home office.

Pet

To understand how our relationship with pets has changed, we hear more and more often about pet humanization. Leading the pet economy are above all Millennials and Gen Z, who are already starting to shape a new market, but also a new type of society.

Plants

The same can be said of plants as well. In this case we speak of bloom economy and plant parenthood. It was a 1970s trend that of indoor plants, but in the last five years it has returned and there is a whole new wave of people who collect plants and take care of them.

Children

The trend today in children's packaging, in addition to safety, is that of an original, colourful and flamboyant design, which knows how to involve them and which is able to attract their attention.

Silver

People live longer and more actively, but not healthier. In fact, multimorbidity, that is the presence of several pathologies, multiplies everywhere. Among the sectors that will benefit are the pharmaceutical sector, health services and residences for the elderly.

Sustainability



Value Chain



Technology



Customers



Home: the first place of care

- The home has become one of the places where people spend most of their time: its spaces have undergone a drastic rethinking, just as the nerve center has become the home for many services;
- All the people who live in the house need ideal spaces and atmospheric conditions.

Aesthetics

Generally speaking, packaging is a three-dimensional object and therefore consists of an objective and physical part. Yet, the more it will be “well done”, and therefore with a physical presence that does not hinder the function of protection and dialogue with the consumer, the more the intangible aspect - that is the aesthetic and communicative one - will have the greater role. Indeed, for the consumer the functional aspect is now taken for granted and the packaging is increasingly chosen solely for the aesthetic aspect.

From an aesthetic **marketing** perspective, therefore a marketing that takes particular care of the appearance of the product, packaging has become in effect a design object linked to **sensoriality**. When we talk about sensoriality, we are not referring only to sight (shapes, colours, graphics and symbols), a sense on which Western culture has traditionally concentrated in terms of communication, but also touch, smell, hearing and taste. As far as touch is concerned, it is important to consider the materials used as well as their processing, to which the desired tactile effects are associated. As for the sense of smell, the packaging can take up the scent of the product it is going to pack to amplify the message it intends to convey.

For hearing, on the other hand, it is sufficient to think of the sound that a package makes when it is

opened, and beyond; in fact, in the age of digitalization it is possible to create a sound experience also through apps and QR-codes. The last sense, taste, is the most complicated to convey through packaging, yet there are indirect ways to communicate a flavour, for example, through narration or, again, through technology, using augmented reality to make the story even more immersive.

The sense of sight deserves further study, in fact, the colour of the packaging influences the consumer on an unconscious level and is not always fully understood. In psychology, there is a theory according to which colours take on a specific meaning for the human mind, stimulating specific sensations and emotions: it is the **psychology of colours**, a discipline often used in neuromarketing.

Colour psychology is also used as a therapy for certain disorders and, in this case, we talk about chromotherapy. For this alternative therapy associated with Ayurvedic medicine, each colour is associated with a meaning:

Below: packaging of L'Estetista clinica

- red represents strength, health, energy and vitality;
- orange is a color that has a liberating action on physical and mental functions;
- yellow is associated with joy and happiness;
- green is the color of harmony, balance and nature that symbolizes hope, peace and renewal;
- blue stimulates and improves knowledge and communication, promotes perception and sleep, oxygenates the tissues and reduces pain;
- indigo acts as a sedative and calming agent, improving intuition;
- purple is used to spiritually awaken, relax the muscles or calm the nervous system, as it balances the entire energy system.

In pharmaceutical packaging, drug packages are characterized by a clean design and the prevalent use of white background, synonymous with purity and sterility. Finally, colors are often essential for differentiating the various dosages: cold and muted colors often characterize drugs with a regular or light effect, while warm shades refer to more decisive and strong actions and to higher dosages.

Another essential element of packaging is the **information** conveyed through it. In this context, the regulatory aspect is very present and innovative

solutions in the pharma field are rare. A hot topic is that of the digitization of the package insert. This topic was addressed by the Pharmaceuticals Association of Industry (AFI) with the project “My e-Leaflet” which created and shared a consensus document with all stakeholders, which therefore want it to represent a starting point for a more in-depth discussion that AIFA is hoped to promote and coordinate in the next future. The last two aspects to mention concern the phenomena of **unboxing** and **show-off**, which are interrelated. They refer to the experience and emotions one goes through when a product is unpacked for the first time, combined with the diffusion on social media. There are many brands that have intercepted these new practices and have adapted by redesigning their packaging to be able to transform the opening of the boxes into a memorable experience. An interesting case is represented by the cosmetic product brand Cynical Beautician, whose packaging is studied in detail to be instagrammable and favour user generated content.



| | |
|------------------------------|---|
| Marketing | The main function of packaging is certainly that of protecting the product from various external factors: yet, today this is a function “taken for granted”. Consequently, packaging will play less and less a technical function, to fulfill rather the role of an aesthetic element. |
| Sensoriality | Sensory marketing today plays a particularly important role in the world of consumption, as consumers are looking for emotions and experiences. In this context, packaging plays a fundamental role and this is demonstrated primarily by the cosmetics and food sectors. |
| Psychology of colours | Colours have a therapeutic power, as claimed by chromotherapy. Therefore, the origin of our well-being also passes through sight and can strengthen treatment processes (which start from the outside). In addition, the colour-association means more help in the moment of sale in the association. |
| Information | In a packaging that is effective in communication, the information is clear and the language is simple and universal (eg symbols and icons). In addition to the subject of the digital package insert, it is also important to consider the obligation of environmental labeling starting from July 2022. |
| Unboxing | Unboxing videos have become a real marketing lever, a way for customers to conduct “market research” (similar to research through product reviews). The boxes are a precious billboard delivered directly to customers. |
| Show-off | Social media has become a veritable showcase of products, including drugs and medical devices. In recent times, it has been popular to see rapid feed tests for Covid-19 and common medications, such as NSAIDs or those for gastroesophageal reflux. |

Sustainability



Value Chain



Technology



Customers



Pack identity

- Packaging is one of the main communication tools that companies use to make consumers notice their products: primarily at the retailing level;
- At home and in the office it becomes a promotional tool: it constantly reminds the consumer of the product and contributes to disseminating the brand and the product to third parties.

Retail

When talking about retail, it should be borne in mind that the new lifestyles, also dictated by the recent pandemic emergency, combined with the new categories of products and services, innovations in points of sale and the predominant rise of e-commerce have changed the traditional scenarios of trade in retail of goods and services. The retail market, in fact, is increasingly competitive, both for the high number of players present and for the diffusion of modern technological innovations. In this context, the pharmaceutical retail channel was the most affected by the changes taking place. In fact, since the 2000s, the sector began a process of continuous modernization until 2017, with Law 124, when the entry of joint-stock companies into the ownership of the private pharmacy was regulated, generating real and own chains. This has meant that even a place like the pharmacy has been struck by the marketing logics typical of retail, which are transforming the patient who needs a drug into a real consumer.

First of all, in pharmacies today there are not only drugs that can be purchased with or without a prescription, but many other products such as, for example, cosmetics, perfumes, gluten-free foods, creams, supplements, homeopathic products, etc.

At the same time, the display of products plays an increasingly important role, as does the presence in the point of sale of advertising and offers (the most striking example is the adoption of loyalty cards). In addition, in pharmacies it is also possible to take advantage of some services such as periodic check-ups, meetings with experts and doctors (such as nutritionists and dermatologists), and free check-ups. The new regulations also suggest a change in the role of pharmacies. In fact, Ministerial Decree 71 also mentions the role of the “service pharmacy” as a local health center and as a fundamental and integral element of the National Health Service: “in this context, the dispensing of the drug must be framed, for chronic patients the possibility of taking advantage of a personalized access service to drugs, pharmaco-vigilance, activities reserved for pharmacies by the legislation on the so-called “Pharmacy of Services” (Legislative Decree no. 153/2009) and the assignment of new functions including anti-Covid and flu vaccinations, the administration of diagnostic tests to protect public health”. It has been said how the health emergency has shaped the purchasing behavior of consumers and with them the face of retail, in particular the pharmaceutical one.

In addition, a comparison with the pre-pandemic period shows an increase in purchases through e-commerce, in particular in electronic products, do it yourself, education, cosmetics and pharma. Furthermore, a change must also be considered at the consumer level to contribute to this passage; in fact, the patient who goes to the pharmacy is increasingly connected and informed. Very often he/she searches for information online, reading and comparing the experiences of other users, informing himself on the difference between one active ingredient and another, and thus independently seeking the optimal solution. It is therefore clear how the context has also changed in the pharmaceutical sector and how the big players are adapting strategically to it: Bayer, for example, has decided to invest in its offer of services by focusing on online with a commercial collaboration agreement with 1000Farmacie. This is an important partnership to oversee the last mile, which is increasingly strategic.

Another hot topic in the retailing field is that of vending machines (VMs) which, despite appearances, represent a sector that has always been driven by technological developments. Today, in fact, technology is moving towards interactive touch screens, AI and mobile payments or through cashless technologies. Also, when you think of VMs you probably think of “machines” filled with chips, drinks and some snacks. Now this is no longer the case. The new generation vending machines offer various alternatives such as healthy, vegan and gluten-free foods, in addition to the most varied products: technological devices, umbrellas, flowers,

Below: vending machine of Bankside Botique

drugs and even engagement rings (this is the case of the Bankside Hotel in London). Finally, VM companies are introducing ‘reverse’ VMs to recycle packaging after the product has been consumed.



In the field of sharing, however, interesting solutions have been implemented in the fashion and supplies sectors. For example, Revest, a platform for renting high fashion clothes and accessories, or IKEA RENTAL. If we look at large-scale distribution, the main sector is, on the other hand, that of food, guided by the concepts of proximity, the customer journey and sustainability which, in the world of large-scale distribution, are concretized in quick commerce, ie dark stores.

Finally, shop furnishing is becoming increasingly important. Trends, in the field of care and health, suggest natural colors and materials, relaxing atmospheres with lots of green; the direction is that of a humanization of the spaces for care.

| | |
|------------------------|---|
| Pharmacies | The pharmacy is establishing itself as a place for services. The offer is expanding, among other things, with home care services, health education and prevention campaigns, bookings for examinations and specialist visits, some types of analysis and diagnostic tests. |
| E-commerce | The pharmaceutical industry still too often uses a standardized approach to all pharmacy e-retailers, derived from the “offline” world and still lacks a specific strategy capable of competing against players like Amazon. |
| Vending machine | Vending machines, as well as smart lockers, are increasingly common in retail and respond to the process of modernization and digitization of pharmacies. Their function is to facilitate and speed up the withdrawal of drugs by customers. |
| Sharing | The world of retail is moving towards an increasingly personalized shopping experience. A transition made possible by the use of new technologies, which provide data relating to consumer preferences and expectations. This is a process that has now also entered the pharmacy. |
| GDO | In the large-scale retail trade, the biggest disruption is represented by dark stores. The concept is to bring together and multiply the sorting and storage points, offering support to the online shop that is actually close to the delivery point. |
| Furniture | The design of the pharmacy has undergone radical changes in recent years. Alongside a trend towards automation, the greatest innovation concerns the creation of more welcoming spaces. A precise sales itinerary must be associated with this: a path that is both emotional and functional. |

Sustainability**Value Chain****Technology****Customers**

Pharmacy of services

- Evolution of professional activity in the field of primary care in order to expand local services, encourage dehospitalization and make pharmacies a health care facility in the area;
- Many delivery and e-commerce services are born, leveraging the logic of servitization.

Routine

A habit is an action that is done often, regularly and repeatedly. Routine, on the other hand, is a way of doing things in a particular order. The main difference between habit and routine is that the habit recurs with little or no conscious thought, while the routine requires a high degree of intention and effort. Taking drugs is an aspect that usually falls under what we have defined as routine.

Traditionally, drugs were taken in specific private or domestic settings - in the bathroom or bedroom before bed, which is a sign that it was a confidential and personal act. Today, however, social acceleration has become a structural factor that has contributed to forming new lifestyles, in which people are in a hurry, always on the move or traveling, thus changing routines of taking medications. In fact, we often hear about “digital nomads”, ie those who work remotely. Working remotely means freedom to travel and to carry out your work from anywhere, without having any fixed ties with an office or company headquarters. So, especially since the pandemic, this has meant that some people have moved from a routine marked by fixed times and places, to flexible and indeed nomadic lifestyles. What is clear is that the issue of therapeutic compliance remains a deeply felt problem, even more so considering the difficulty in creating a routine these days. Just think that only half of the subjects who leave the doctor's office

with a prescription take the drug as prescribed. Among the most common reasons we find forgetfulness. This can happen for several reasons: because the psychological mechanism of rejection is involved for a pathological state that scares or worries, or because of possible side effects. In case of children, regular drug intake is even more difficult. For children with chronic diseases (such as type 1 diabetes or asthma), compliance with the therapy is difficult because the treatment schemes are complex and last for a long time, or because the medicine does not taste good or is frightening.

Once the general picture is understood, the need to look for ‘**remind**’ strategies becomes clear. There are some common tricks, for example you can leave reminders in different parts of the home, or you can associate the intake with a specific daily habit, such as breakfast or cleaning your teeth. It can also be useful to set an alarm or use blister packs indicating the days of the week, so that you can trace the doses taken by counting the empty spaces. Labels can also be applied to the cartons to facilitate the association between the drug and therapeutic indications, or use smart containers that perform this function.

Below: packaging e app di MyCite

And there is more. Recently, the US Food and Drug Administration approved the use of Abilify MyCite, the first pill equipped with a sensor for monitoring therapeutic prescriptions. Basically, it contains an IEM sensor to be swallowed together with the active ingredients. The IEM is activated in contact with gastric juices and transmits its signal to another patch sensor placed on the patient's abdomen, then the signal is transmitted to an app that also monitors physical activity, the mood and sleep quality of the patient.



Another important factor is conservation which, with a lifestyle that is always on the move, it is not easy to carry out correctly. The drugs must be stored in a dark place, at room temperature (around 20 ° C), away from heat sources, or, if specified, in the refrigerator. Therefore, they should not be exposed to sunlight and should not be left in the car. Another topic concerns the expiration date, if it

exceeded, a probable loss of the active principle must be taken into account.

The solutions for transportability, storage and disposal developed in the professional sport sector are interesting. Let's take as an example the well-known Science in Sport (SIS) brand, a world leader in the high-performance nutrition sector. Among the habits and needs of athletes and especially professionals during a high-intensity activity, we identify the intake of food supplements, generally in the form of isotonic energy gels or bars. The shapes of the packaging are therefore studied to be convenient to slip into the pockets of technical clothing, easily opened with the use of one hand or with the help of the teeth and just as easily assumed, thanks to the spout from which you can "suck" the gel substance. The packaging is soft, light and extremely easy to handle and resists the pressure of certain atmospheres, thus withstanding possible accidental impacts.

If we think instead of other routine activities to which the intake of drugs or supplements is associated, the areas are also those of beauty and holidays. Beauty, today much more than in the past, is understood as something that is born "from within". In fact, a growing trend is related to wellness supplements: the better the nutrition, the better the well-being and appearance of the person. Finally, as regards holidays, where you eat or drink more than usual, a popular phenomenon is to always have with you a "survival kit" consisting of anti-acids and stomach pain medications.

Movements

The contemporary global context is marked by an intense mobility of goods, people, ideas and information. In this context, respecting a correct compliance is increasingly complicated due to the lack of a proper routine.

Conservation

Today we travel more and more often and the correct storage of medicines is an important issue; for example, it is important to avoid leaving them in the car, in the bag on the beach or in the hold of the aircraft. It is essential to use suitable containers for transport, as needed.

Remind

There are many solutions on the market to help people in compliance such as, for example, smart containers and solutions that are based on gamification logics, such as FebriSol, an adhesive that sticks on the boxes and works like a scratch card.

Sport

The endurance sector offers excellent ideas in terms of portability, ease of intake and disposal, for example, offering bags in which to collect and send empty packs free of charge to specialized recycling centers.

Beauty

Face creams, anti-wrinkle treatments, masks, serums and cleansers are all products found in the skincare routine. Moreover, today, more and more popularity has the idea that to protect health, an ad hoc diet associated with supplements is also needed.

Holidays

In the context of habitual behaviors, a correlation is observed between the use of antacid-digestive drugs and NSAIDs and the occurrence of parties or holidays. It is now a phenomenon that has also gained a certain visibility on social media.

Sustainability



Value Chain



Technology



Customers



Rituals

- The difference between a routine and a ritual is the attitude behind the action. While routines may be actions that just need to be done, rituals are seen as more meaningful practices that have a real sense of purpose. In order to achieve correct compliance, therefore, therapy should be part of this logic.

Unpack

When investigating the “Unpack” topic, what emerges in the first place is a philosophy, a movement, followed by an increasing number of consumers: the Zero waste. Simplifying, “Zero waste” means reducing waste to zero. It is a movement according to which we should try to live by reusing what we already have at home and reducing the amount of waste produced every day. One of the key points for adopting this lifestyle is precisely the reduction of packaging (loose products or whose packaging is compostable or recyclable in its entirety).

In this regard, a study carried out by the English research institute Eunomia in collaboration with the Zero Waste Europe and Réseau Vrac associations analyzed a niche market, still not much considered, but of great social and environmental importance: **bulk**. The study showed that the sale of bulk products could double by 2023. The analysis also shows a net growth in the sector in terms of number of shops, turnover and jobs over the last 10 years: in 2019 it consisted of 2,902 structures with a total turnover of € 274 million.

The variety of “nude” products offered is very wide and above all includes food sector but also but also herbal products, such as infusions and medicinal herbs or products for the

home and personal hygiene, such as detergents and soaps like the Soapbottle, a soap container also made from natural soap and biodegradable that, once empty, can be subsequently used as a hand soap.

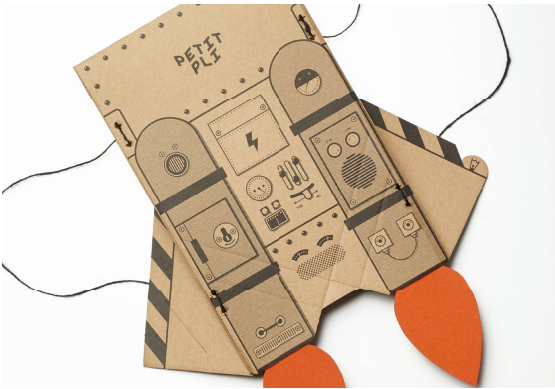


But you can also buy cosmetics, treats and other proposals for pets. One of the biggest advantages of bulk products is the ability to purchase the ideal dosage for your needs, favoring the reduction of waste.

However, the dominant trend is the opposite. According to a report from the European Union, packaging waste grew by 20.1% from 2009 to 2019, reaching 79.3 million tons, of which 32.2 of paper and cardboard (+ 23.2%), 15.4 of plastic (+ 25.8%), 15.2 of glass (+ 13.7%), 12.4 of wood (+ 19.3%) and 4 of metal (+ 6.2%).

Above: packaging of Soapbottler

Other responses to the Zero waste lifestyle, as anticipated, are second-life packaging. In fact, many brands have set themselves the goal of developing packaging that can also have a **second life**, beyond its immediate function. A concrete example is Petit Pli, which has as its mission the reduction of waste in children's clothing by combining human-centered design methodologies with aerospace engineering techniques to create innovative garments that grow with the child and reusable packaging as a game.



Many new products have also emerged within the sub-topic of universal boxes, reusable containers that respond to the logic of the circular economy. This is the case, for example, of Apepak's beeswax wrappers for food preservation or of the start-up Around which introduced a reusable ceramic and bamboo box in take-away and food delivery services for purchase of unsold food at the end of the day at the discounted price set by the restaurants. The service is available in Milan, but the goal within the year is to reach Turin, Bologna, Florence and Treviso.

In alto: packaging di Petit Pli

Moving on to the home appliances and **electronic devices** market, it has seen exponential growth following the pandemic and this has made it necessary to develop new design ideas for their packaging. An interesting idea is the EX-Box concept (winner of the Ecodesign the future: Packaging edition competition, promoted by Erion Packaging together with Circular Economy.com). The project developed is a secondary packaging consisting of an FSC corrugated cardboard box which, once opened, becomes a counter display for the products contained inside (octagonal-based prisms made in recycled plastic material on which USB cables are wound). This testifies to an ever greater sensitivity to the end of life of packaging, therefore to their transition from a useful tool to **waste**.

From 1 July 2022, the obligation of environmental labeling on packaging will take effect. The standard provides for the indication, with the utmost clarity, of the methods of collection and disposal of the pack.

The legislation is extended to the entire packaging circuit that has the final consumer as a direct recipient (including the pharma sector). A final issue to be addressed is that of the **supply chain**.

In fact, many of the goals for creating sustainable packaging depend on improvements in the recycling infrastructure and investments made by processors and suppliers of raw materials.

Furthermore, all this is possible only through the creation of an ecosystem for data collection, in order to know how many and what types of packaging a company consumes and produces.

Universal box

There is no online shopping and shipping without a box or packaging, and there is probably no need to point out how much waste is involved. One way to eliminate this waste is to opt for packaging-as-a-service solutions with reusable packaging.

Home appliances

Large and small appliance brands are increasingly at the forefront. Companies have understood that investing in the search for new advanced, technological, intelligent and sustainable solutions is the best way to stand out from the competition and retain consumers.

Bulk

In the food industry, there are some examples where the product itself becomes packaging or where you can buy a loose product. Now this logic is also passing into other sectors, such as that of cleaning products and home hygiene.

Supply chain

Consumers pay more and more attention to the environmental impact; therefore, it is increasingly important to guarantee ecological and social responsibility in the development of the products they buy. In addition, governments are increasingly focusing on packaging waste.

Waste

In the pharmaceutical sector, there is still no standardized labeling system that clearly communicates recycling instructions to the public. It is now a commodity for the consumer who needs useful and clear information also through intelligent packaging labels.

Second-life

Many brands are developing packaging that can have a second life. Many projects go, on the one hand, towards a logic of gamification and aim at a target of children and pets, on the other, towards new materials that can become flowers and vegetables in their second life.

Sustainability



Value Chain



Technology



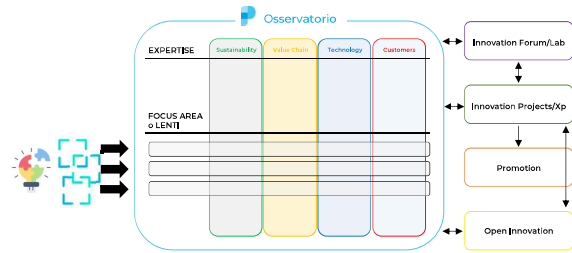
Customers



Circular Economy

- The Zero waste movement is becoming increasingly popular in Europe, promoting a lifestyle that goes in the direction of reducing waste and garbage (packaging focus).

Synthesis



Sustainability



Value Chain



Technology



Customers



TELEMEDICINE

- Delocalization and decentralization of diagnosis, treatment, therapy and monitoring;
- home as the first health center;
- patient-centric system;
- new distribution models.

Sustainability



Value Chain



Technology



Customers



HOME: THE FIRST PLACE OF CARE

- The home has become one of the places where people spend most of their time; their spaces have undergone a drastic rethinking, just as for many services the nerve center has become the home;
- all the people who live in the house need ideal spaces and atmospheric conditions.

Sustainability



Value Chain



Technology



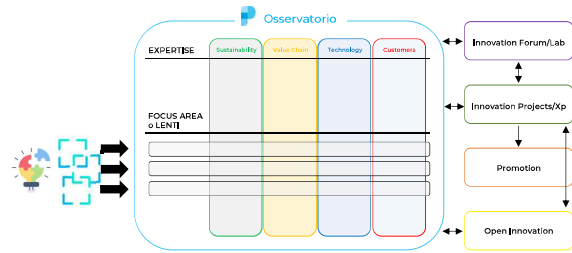
Customers



PACK IDENTITY

- Packaging is one of the main communication tools that companies use to make consumers notice their products: primarily at the retailing level;
- at home and in the office it becomes a promotional tool: it constantly reminds the consumer of the product and contributes to disseminating the brand and the product to third parties.

Synthesis



Sustainability



Value Chain



Technology



Customers



PHARMACY OF SERVICES

- Evolution of professional activity in the field of primary care in order to expand local services, encourage de-hospitalization and make pharmacies a health care facility in the area;
- many delivery and e-commerce services are born, leveraging the logic of servitization.

Sustainability



Value Chain



Technology



Customers



RITUALS

- The difference between a routine and a ritual is the attitude behind the action. While routines may be actions that just need to be done, rituals are seen as more meaningful practices that have a real sense of purpose. In order to achieve correct compliance, therefore, therapy should be part of this logic.

Sustainability



Value Chain



Technology



Customers



CIRCULAR ECONOMY

- The Zero waste movement is taking more and more footsteps in Europe, promoting a lifestyle that goes in the direction of reducing waste and garbage (packaging focus).

The 9 identified trends

Over the years, the **concept of health** has undergone significant changes. Traditionally, “health” is defined as the physical state of man in the absence of disease. In the mid-twentieth century, this first conception changed, including the concept of well-being and mental health, as well as the social sphere: “a state of complete physical, social and mental well-being, and not just the absence of disease or infirmity” (WHO, 1948). We understand, therefore, how the concept of health moves from being an objective measure of “physical normality” to being something totally subjective. In other words, we can now match a person’s health to their subjective feeling of their quality of life.

Recently, in the scientific vision and awareness shared by most of today’s cultures, the environment protection has clearly entered the concept of well-being. Issues such as the environment protection from pollution, the protection of biodiversity, sustainable development, the control of global warming are increasingly considered parameters on which the possibility of guaranteeing people’s health depends. Finally, if we look at the present, we have gone further with the concept of One Health, which considers health as an interrelation between different living systems, precisely to act in an integrated way for the benefit of men, animals and the planet.

Digital Healthcare



Alternative Food



Do It Yourself



Customization



Purity



New Families



Neo-nomadism



Packaging Revolution



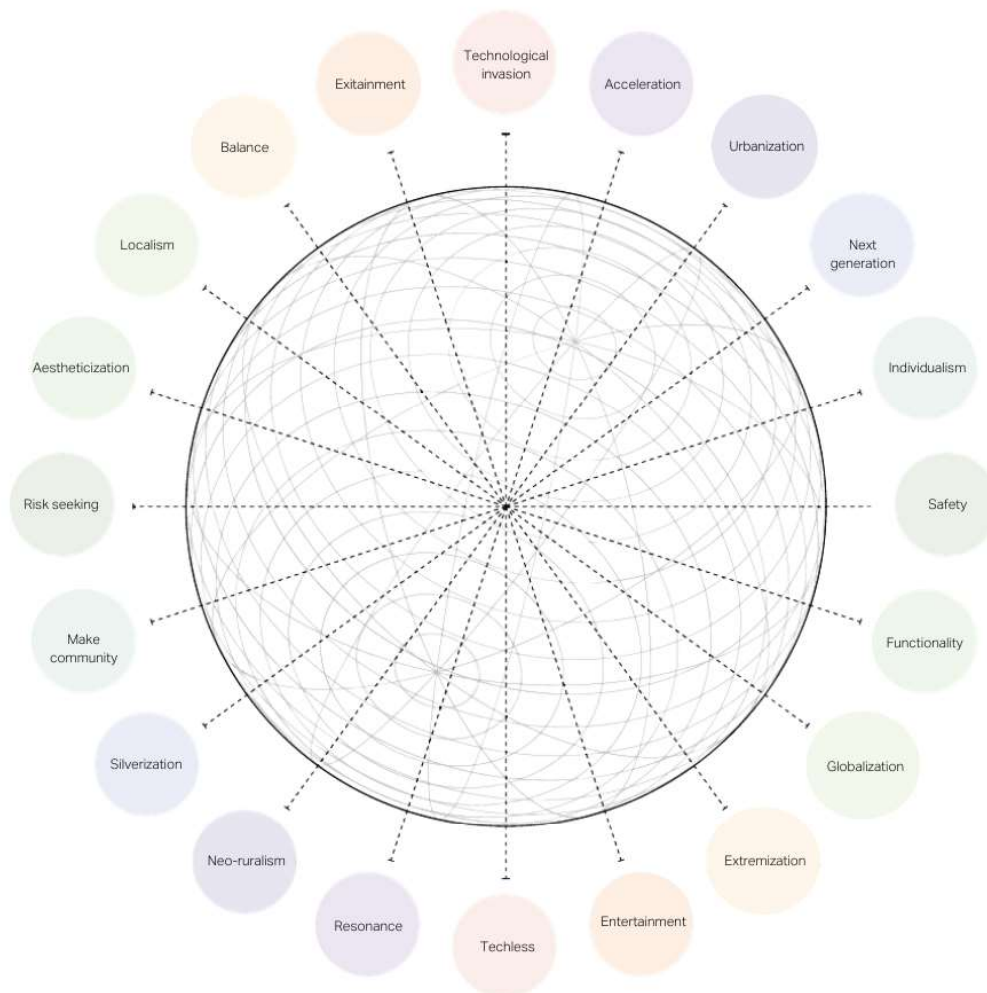
Professionalization



The trends identified therefore tell us of a consumer who tends to pursue a healthy lifestyle not only from one point of view of food choices, but also of a whole series of prevention initiatives aimed at seeking holistic well-being. The search for well-being in this sense is oriented both to mental and physical health, in harmony with nature and animals. For the cataloging and systematization of the various trends identified during the intelligence phase, the scheme called **TRENDVERSE** is used.

The scheme consists of 10 macro-trends, for every of which its opposite has been identified.

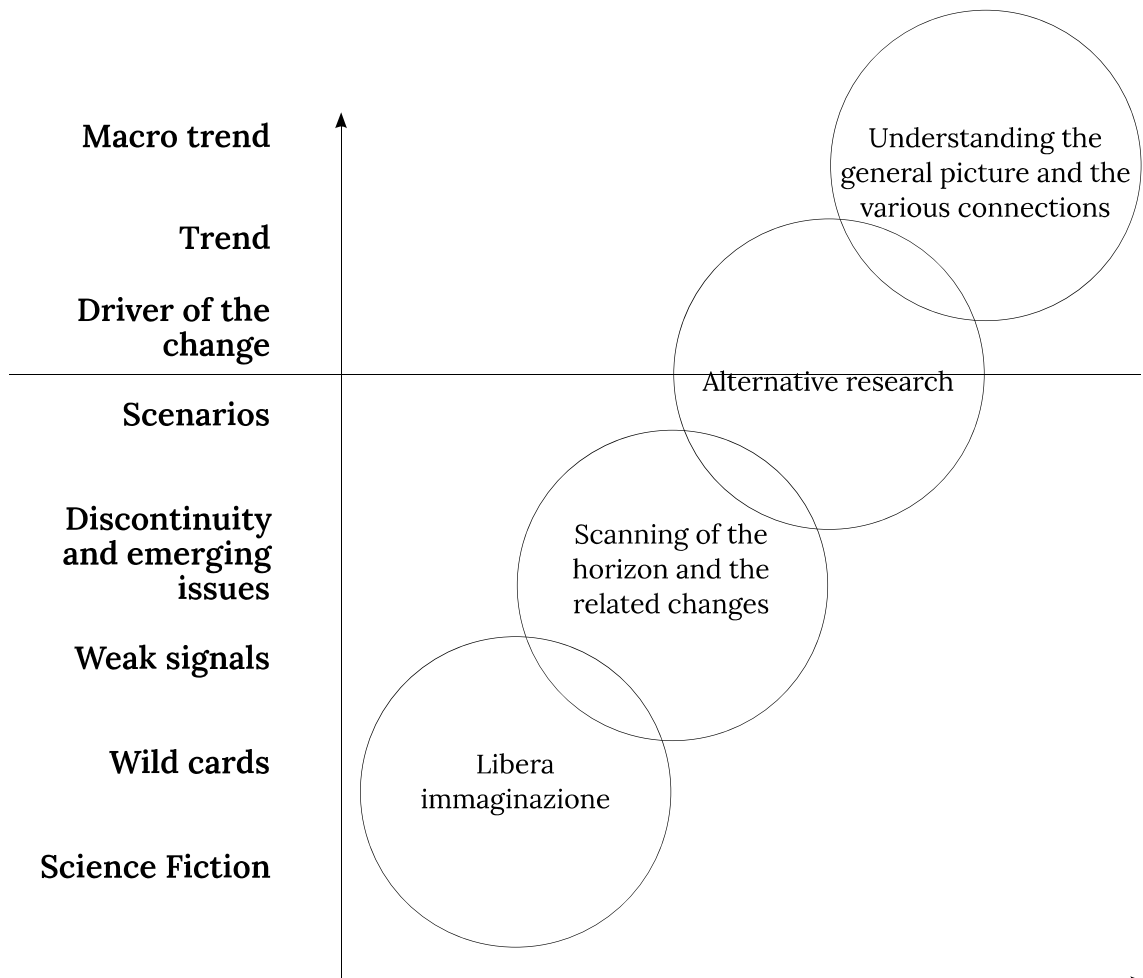
Macrotrends are global and complex trends capable of producing significant changes in the long term, often linked to structural factors such as demography, the environment, scientific and technological innovation, mentality. The macrotrends are therefore also defined on the basis of weaker opposing forces, but not negligible for this, as it is appropriate to bring to light all the forces that act on their reality.



Above: the Trendverse made by Strategy Innovation

The trends identified are then inserted within the framework just described above. They emerge as the meeting point of some of the macro-trends located at the extremes of the globe of the Trendverse. Depending on the case, the trend will be attracted more by one force than by another. The definition of 'trend' given by the Encyclopedia of Economia Garzanti mentions: "the underlying tendency of a phenomenon to change (increasing or decreasing) or to manifest itself constant over time".

Therefore, trends are emerging tendencies with very rapid adoption cycles, capable of anticipating future behaviors and needs of society. This phenomenon, by its nature, tends to influence people's ideas and behaviors, evolving differently depending on the context in which it occurs.



Above: the types of knowledge about the future. In the vertical axis the objectives of knowledge about the future and in the horizontal axis the importance of "historical" knowledge. Source: Understanding the larger picture – The first type of Futures Intelligence © Futures Platform 2020.

Sustainability is not a trend

Sustainability as **ETHICAL CONSUMPTION** is increasingly considered the ultimate goal of all the actions implemented. This statement is corroborated in consideration of the UN Sustainable Development Goals (SDGs) or **Agenda 2030**, which recognize the close link between human well-being, the health of natural systems and the presence of common challenges that all countries are called to face. The SDGs touch on various interconnected areas to ensure the well-being of humanity and the planet: from the fight against hunger, over the protection of natural resources, to the affirmation of sustainable production and consumption models.

The dominant topic in pharmaceutical packaging concerns the **need to replace the packaging used up to now with alternatives with a low environmental impact**. The pharma sector is among the sectors that have the greatest difficulty in managing the use of recycled materials or easily recyclable; this is because they must first of all ensure an excellent conservation of the pharmaceutical formulations contained within them. Therefore, glass, plastic and aluminum are the most used materials in primary packaging; while, in secondary packaging the main problem is represented by paints and adhesives with high environmental impact used for the creation of cardboard boxes.



Above: Sustainable Development Goals or 17 interconnected goals, defined by the United Nations as a strategy “to achieve a better and more sustainable future for all.



Digital Healthcare

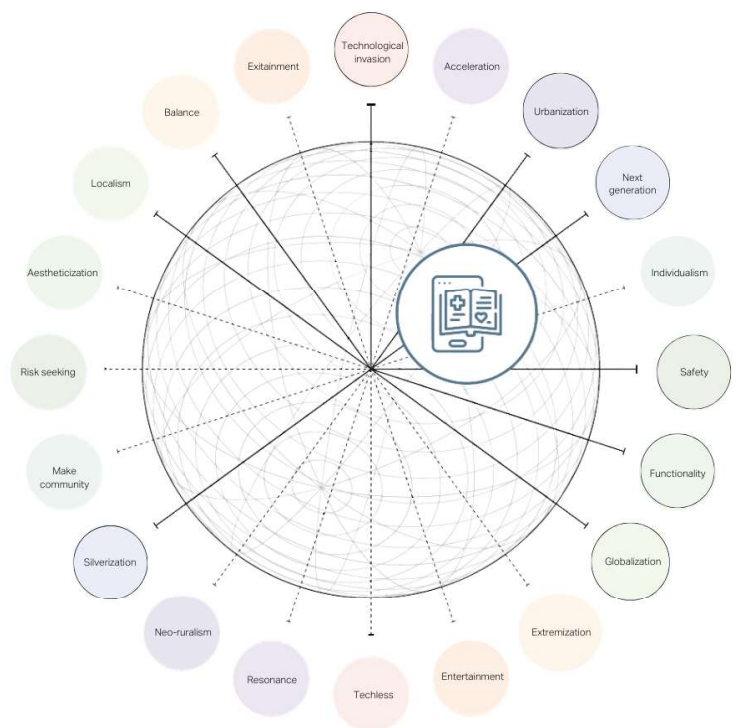
Progressive 'hybridization' between the contexts of wearable devices and diagnostics in the clinical-hospital setting, from a patient-centric perspective.

The technological tools offered by digital healthcare allow the provision of "tele-medicine" services, i.e. remote visits (television and tele-consultation) and remote monitoring of physiological parameters (telemonitoring), but also the organization of the priorities of clinical intervention and the scheduling of specialist visits (teletriaging), the creation of services for the coordination and digitalization of treatment paths, as well as taking charge of the patient with new doctor-patient communication services up to "processing of real physiological data (real world data) for the improvement of the therapeutic efficacy (monitoring of clinical outcomes). This area also fully includes: the implementation of the electronic health record, the electronic medical record, the electronic medical prescription and the telematic certificate of illness, without forgetting the support given to robotic surgery in the pre- and post-operative and rehabilitation.

The "smart" evolution and miniaturization of medical devices demonstrate undisputed benefits in the field of specialist diagnostics.

Digital healthcare is not a new topic: for many years, for example, home care has been part of a specific strategy for dealing with

emergencies in Israel. Yet in Italy it is a phenomenon that exploded after the pandemic. In addition, according to the research of the Higher Institute of Health, among the most developed countries, Italy is the one in which the population is aging more rapidly, so it is clear that this is an urgent intervention. In the Israeli model, a very large network of home assistance has been developed, which is provided by social and healthcare companies on their own or in collaboration with affiliated entities. In addition, there is a lot of focus on telemedicine or remote surveillance thanks to the fact that every citizen has an app on their computer or smartphone with which they can speak directly to a social-health service call center on video with a triagist nurse who prepares the answer.





Alternative Food

Globalization on the one hand and scientific research on the other have brought new and unusual foods to our tables, such as novel food and alternative proteins.

The Future of Food and Agriculture: Trends and Challenges, 2017 FAO report, states that despite significant progress in reducing world hunger, expanding food production and economic growth over the past 30 years they have often entailed heavy costs for the environment.

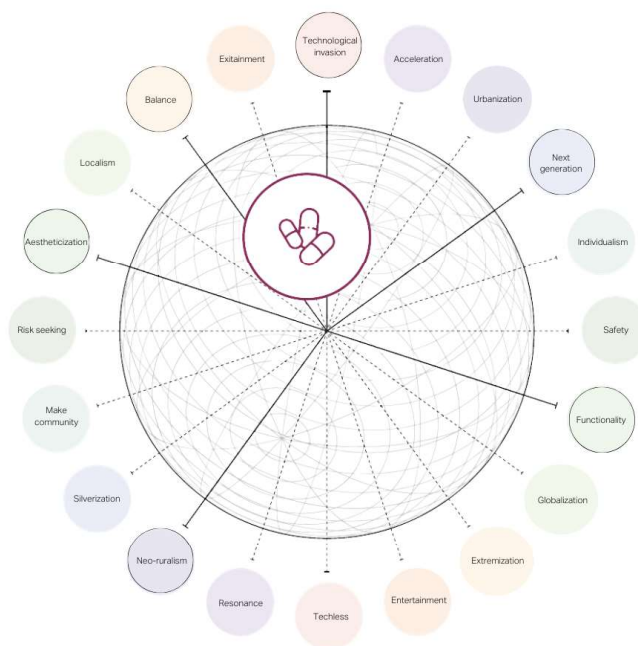
The need therefore emerges to find alternative food sources, which can help meet the ever-increasing demand, but which are at the same time sustainable and with a low environmental impact. Food technology is increasingly advanced and responds to the need to create alternative products that mimic animal proteins, significantly limiting their environmental impact and completely eliminating the ethical implications of animal-based products. There are many solutions being studied: from meat grown in the laboratory, to vegetable proteins, insects, algae, up to mycoproteins.

The same Farm to Fork strategy of the European Commission believes that alternative proteins are fundamental for the transition towards a sustainable food system.

According to the study done by Boston Consulting Group Food for Thought and the Protein Transformation, by 2035

alternative proteins will conquer 11% of the global market, equal to approximately 290 billion euros in turnover, or 22%, only if by that date there will be progress in regulating the sector.

Moreover, thanks to the pandemic, more and more people have resorted to food supplements with the aim of balancing the nutritional intake of their diet, trying to achieve a higher degree of well-being through a 360 ° attention to health. This, therefore, is added to a greater inclination towards the consumers' search for a lifestyle that leads to healthy aging and a greater adoption of nutritional interventions.





Do It Yourself

People now want to take matters that need professional assistance into their own hands. This practice is what the world calls 'DIY'. Instead of relying on professionals, individuals try to solve problems independently.

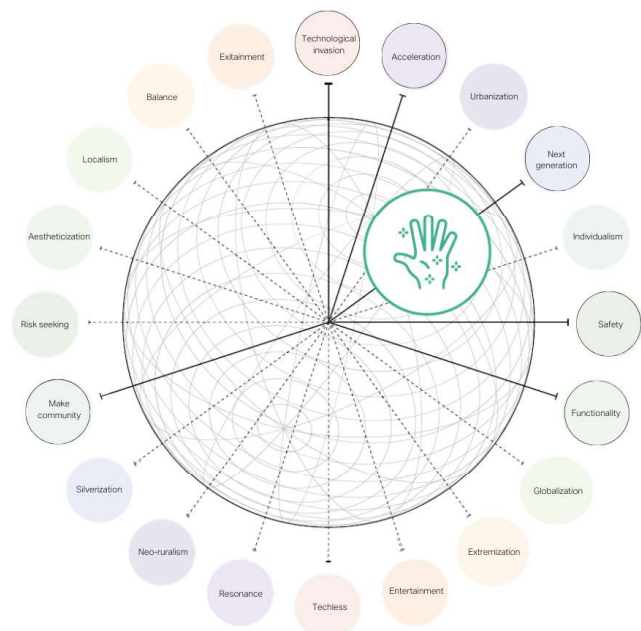
From changing a car battery to gardening, people increasingly tend to engage in these activities. Some individuals even turn “do it yourself” projects into a fun family activity to share. Given the popularity of this trend, a substantial increase in “do-it-yourself” tools such as video tutorials, guides and articles has also been observed, starting with gardening, up to training and nutrition.

The explosion of “do it yourself” in many fields has been linked to other ongoing trends, such as that of the Quantified Self, that is, self-awareness through numbers. There are many examples that could be cited. In the field of health and well-being we can mention Veri, a device that provides real-time monitoring data of blood glucose levels, allowing you to calibrate your blood sugar by controlling your diet and sleep.

Another phenomenon linked more subtly to the DIY trend is the Human Enhancement, that is the attempt to go beyond the limits of the human body through both natural and artificial means. It is observed how increasing attention is paid not only to exceeding the physical limits of one's body, but

also those of one's mind. Recently we are witnessing a rediscovery of the importance of mental health.

Think, for example, of the boom in online therapists during the period of the health emergency and lockdowns. From here the development of teletherapy and telepsychiatry began which, going forward, will likely become a widely accepted form of treatment (eg. Unobravo). Along with this, drugs and supplements are also increasingly popular to promote concentration and prevent neuronal deterioration.





Customization

Go beyond the classic segmentation, reaching the point of addressing the customer on an individual level.

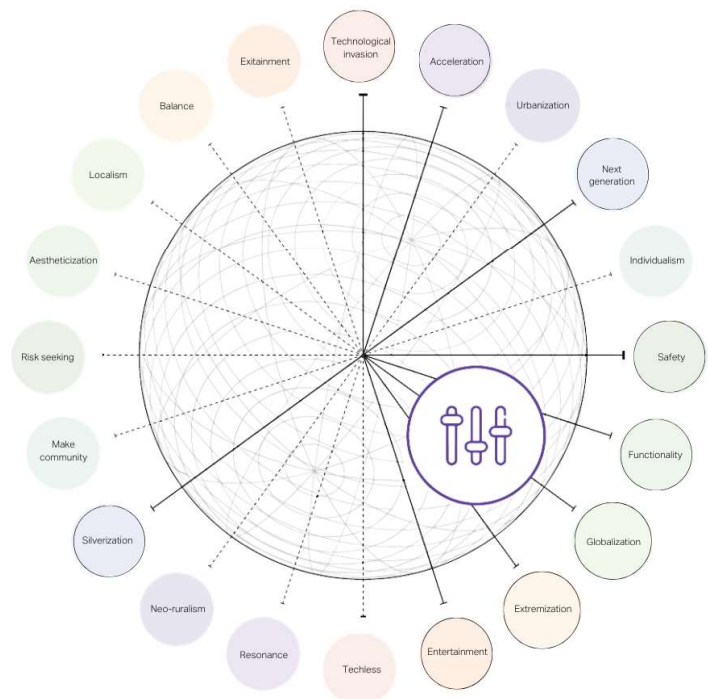
Hyper-personalization consists of offering products, services and solutions that are highly adherent to customer needs, and that strengthen the relationship and ensure their loyalty through unique experiences. The goal is to ensure that the customer has an individualized perception of the solution and solves his/her need or desire efficiently, without obstacles and through the channel he/she prefers.

Ultimately, if you had to choose a phrase that translates the idea in its essence, it would be: “this solution was made for me”, i.e. it was created for the individual in question and for all those who fall within the same consumption profile.

The hyper-personalization process can only work if companies invest in tools to collect and process data. To exploit these inputs, it is necessary to implement a data intelligence strategy through automation, algorithms and artificial intelligence.

As for the healthcare sector, personalized medicine is the frontier of the future but, although innovation is driving biomedical research, we must deal with what is on the other side of the scale. State-of-the-art therapies, such as CAR-T or

RNA therapies, are very expensive, require a complex production system and special precautions for administration to patients. Rare diseases and other very serious diseases have always been among the first applications of innovative therapies: research continues unabated all over the world, but the number of patients undergoing these therapies globally is still low. Industrializing personalized therapies, even if it may seem illogical, could be the solution to make them more accessible.





Purity

Increasing attention to the quality of everything around us. Food, water, air and non-contaminating surfaces are an increasingly felt need.

In contrast to the growing negative meanings related to impurities (microplastics, food, indoor and outdoor air, soil, water and materials), interest in the concept of purity is growing.

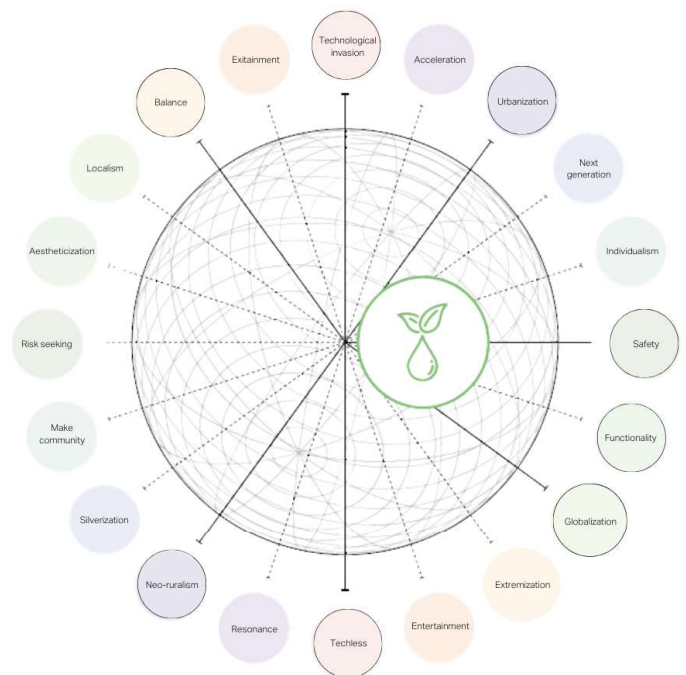
The purity of the air and the control of environmental pollution, as essential factors for human health, are attracting attention.

The problem of the quality of the air breathed became pressing starting from the Enlightenment (with the smog of London) and still today, updated by climate change and the pandemic, it arouses the interest of citizens all over the world. Air pollution causes serious damage to people's well-being and is often more common inside an environment than outside. In fact, chemical, biological and physical pollutants that are dangerous to humans are concentrated inside homes. Knowing this form of pollution and preventing it is therefore essential.

The phenomenon, however, has a significant weight also for the external environment; think, for example, according to the annual dossier of Legambiente Veneto, that the annual estimation of deaths in Italy from atmospheric pollution is 60,000 and in Veneto the concentrations of PM10 recorded are among the highest, well above

double of the daily limit value.

The same goes for food and food supplements. In fact, the attention to get to know the entire supply chain behind the products displayed on supermarket shelves is growing at an equal pace.





New Families

Transformation of previous relational forms that give rise to new configurations, where the distinctive elements are linked to the disjunction of functions previously considered intrinsic to each other.

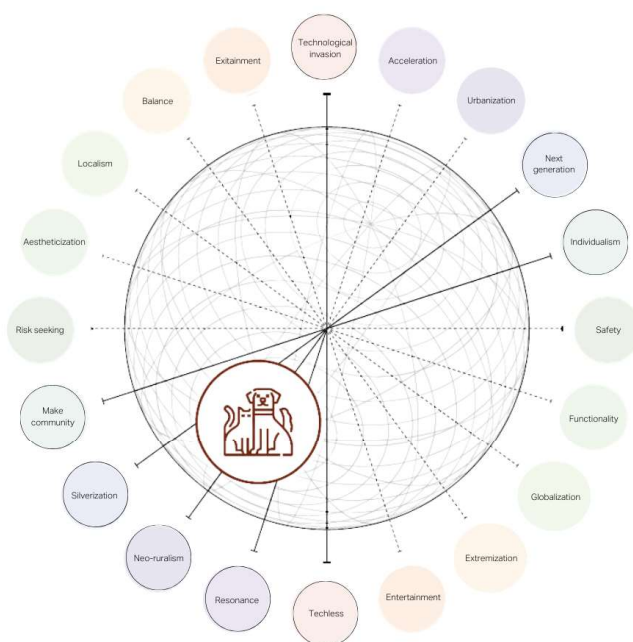
By “new families” we mean the consideration of new targets that marketing must take into consideration in the coming years, such as: singles by choice, rainbow and extended families, “new Italians” born in communities of immigrants of various ethnic groups, over 65, etc. As for the last point – over 65 – a discussion on the subject is needed and it necessarily goes through the mention of the progressive aging of the population. In fact, by 2050, the statistics state, the number of elderly people will tend to double, going from 11% to 22% of the total population. In parallel, the average life has lengthened. You feel young well over 60 and you only feel old at 80.

In terms of ‘New Families’, it is recorded that more and more elderly people live with a person who helps them in the management of the home, in the care to follow and in daily activities. These figures, the care givers, therefore become a fundamental and integral part of the family, becoming a precious support for children who do not have the opportunity to support their parents day by day.

Another phenomenon in sharp increase is that of single-parent families: separations are very

frequent nowadays, and both fathers and mothers often do not feel the need to find a new partner immediately. Here we are witnessing the emergence of families made up for part of the week by a single person and for the rest of the week by an adult and a minor.

Finally, it is necessary to talk about an issue that involves an increasing number of Italian families, namely the choice of sharing one's home with a pet. In Italy, there are over 60 million pets. The lockdown then accelerated the expansion of the pet economy. In the first months of 2020, the Italian pet food market was already worth over 2 billion euros, today the figure has grown again. The pet is therefore considered part of the family.





Neo-nomadism

Tendency to respond to the liquidity of contemporary capitalism by creating spaces, relationships and objects with a hybrid and flexible character.

Both globalization and new media have contributed to definitively change the approach that contemporary citizens have with respect to the world that hosts them, making them feel more free to move, but above all by producing self-awareness as a potentially cosmopolitan citizen.

How do objects, interiors and public spaces change in the era of mobile technology and neo-nomadism?

Remote work, cloud computing, coworking, freelancing, frequent traveling: what will be the impact of these phenomena on design? And what about our society?

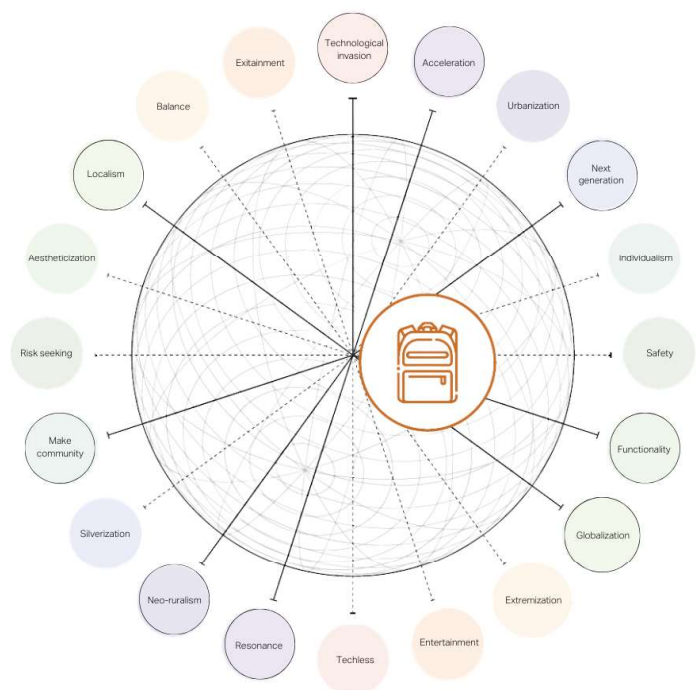
What is certain is that flexibility, nomadism, individual freedom are now an integral part of the new generations.

At the beginning of the “digital revolution” it was thought that technology would lead us to have fewer human relationships; this did not happen. Indeed, today, one of the reasons to go to work is to meet people. We are therefore much more connected to each other, not only thanks to tech tools, but also physically, and we are more nomadic, but the space in which we move has an increasingly important value.

Therefore, we are experiencing a moment of great transformation.

Remote working and digital nomadism are and will be among the most important phenomena of the next decade.

In this context, proposals and ideas of nomadic design products are increasingly frequent - from homes to furnishings, from objects of use to accessories to wear. Some realistic, others experimental or futuristic, designed for urban and digital nomads, a new category of young potential consumers. It is a combination of analog and digital functions, interconnected, agile, light and portable. As for objects for the person, the backpack is the symbol par excellence of travel and nomadic life.





Packaging Revolution

The practice of unboxing, digital storytelling and minimal packaging are a clear sign that the content is no longer the master. The box wants its share.

When it comes to the packaging revolution in general, one of the most addressed issues is that of plastic.

The demand for plastic, in Europe alone, is close to 50 million tons per year, of which 40% is destined for packaging, almost all disposable. The examples of over-packaging come mainly from the food sector.

However, packaging has some fundamental functions that it cannot fail to do. It must first of all protect and preserve its content, it must be functional to the entire logistics chain, it must act as a vehicle for information, it has to identify a brand and attract the attention of the buyer.

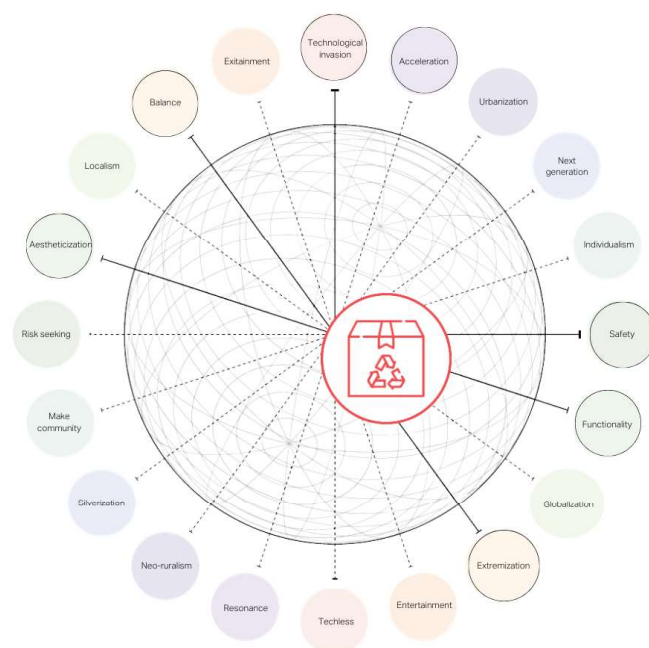
The secret to creating “good packaging” lies in finding the balance between excess, which impacts on the environment, and deficiency of packaging, which can lead to other types of problems, such as premature deterioration of the products contained within it, contamination, lack of protection for delicate products.

Among the hottest issues in the packaging field there is also that of smart packaging.

Intelligent packaging, particularly in the pharmaceutical and related markets, includes various solutions such as, for example, technology

for tracking and anti-counterfeiting, accurate monitoring of information on dosage, deadlines and reminders, etc.

Finally, the issue of the show-off is also central, where the practice of unboxing is the first fundamental element. Influencers in fact do not just present their latest purchase with some photos and posts, but film the entire opening of the box, taking care to show every detail.





Professionalization

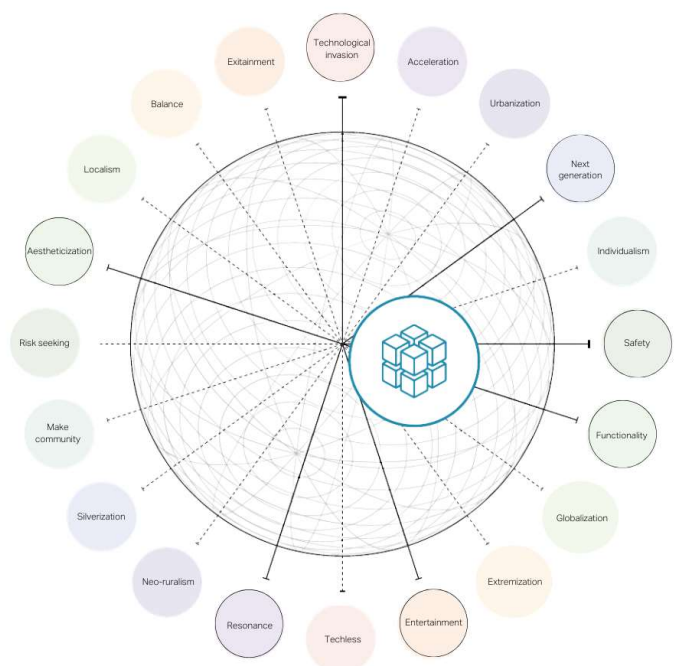
Professional-derived equipment is becoming more and more present in our homes.

On the one hand, professional-derived equipment is increasingly becoming a very fashionable accessory for home use and, on the other, many household items are gradually becoming professional. In the domestic environment, a trend is emerging that is destined to penetrate all sectors of living: using tools that guarantee the achievement of high standards, for example cooking at the level of a starred restaurant, watching a film as if we were in the cinema, cleaning and sanitize perfectly, be able to train with the same quality as when you train in the gym and monitor as in a doctor's office. Professionalization goes together with the demands for better energy efficiency, as well as performance. Think of the kitchen: blast chillers, fryers, grills, cooking plates, professional pots, chef's knives, coffee machines for bars, etc. A kitchen of professional derivation ensures the highest performance in the preparation and cooking of food even at home, but requires a higher amount of energy than the traditional kitchen.

Therefore, it becomes essential to improve the energy efficiency of the various professional tools that enter our homes.

But it is not only professional appliances that have entered homes, we also find the same professionals, such as chefs, personal trainers,

doctors and psychologists, who have adapted to offer services of the highest level directly in the private home. This is the case, for example, of Unobravo, an Italian psychology and psychotherapy service completely online. In addition to the team of psychologists and psychotherapists, unobravo also boasts the presence of psychiatrists, nutritionists and personal trainers.



Chapter 03

Case study

Starting from the exploration of the 6 areas (so-called topics) identified with the Archipelago, **50 case studies** were selected, belonging to the healthcare, packaging or adjacent sectors, which intercepted and interpreted the identified trends in an original way. Observing and identifying socio-cultural trends and related case studies means considering that the choices made today have significant impacts on our world and its structure. Furthermore, these will lead to changes in the ways of relating between people, with objects / products, between brands, with society and even with loved ones. Much will depend on the specific context, but we are convinced that all these case studies have elements that can inspire making of innovations in the packaging sector.

**Digital Healthcare**

DaVinci healthcare

Overview

DaVinci Healthcare is an innovative start-up specialized in tele-medicine, more precisely in telemonitoring and teleconsulting.

The service is accessible through an app or webapp.

DaVinci Healthcare collaborates with the largest cooperative of general practitioners covering the Lombardy region and involves not only general practitioners, but also psychologists, psychotherapists, pediatricians and specialist doctors, such as dermatologists and other. Using the service is very simple: it requires registration and an initial questionnaire. Thereafter, the doctor will contact the patient within 20 minutes (maximum guaranteed waiting time).

Lesson learned

The service offered allows the patient to maintain continuous contact with specialists and at the same time to simplify the management of the doctor-assisted relationship. In addition, it takes care not only of the physical well-being, but also of the mental health of the individual, emphasizing the focus on the health of the individual in its holistic meaning.

It is an evolution, that of offering and using telemedicine services, which is increasingly common (Observatory Digital Innovation in Health, Politecnico di Milano School of Management).



**Digital Healthcare**

Pharmercure

Overview

Pharmercure is an online platform that organizes home delivery of all products purchased in pharmacies and parapharmacies, including prescription drugs. Orders are delivered in two time slots throughout the day by couriers of partner logistics companies. The pace of work for riders in the pharma sector, on the contrary of other categories such as food, are not tight as there is almost never an immediate need to receive the product. Most people are satisfied with a half day delivery. The service is available in 25 municipalities in 13 provinces of Northern, Central and Southern Italy (2021).

Lesson learned

The ability to buy online and the convenience of receiving the product at home are becoming an increasingly important variable in the choice of shops. A fact that confirms this is precisely the observation of Pharmercure's turnover in 2020, which reached € 220,000 and has a transaction amounting to € 1.2 million.





Digital Healthcare



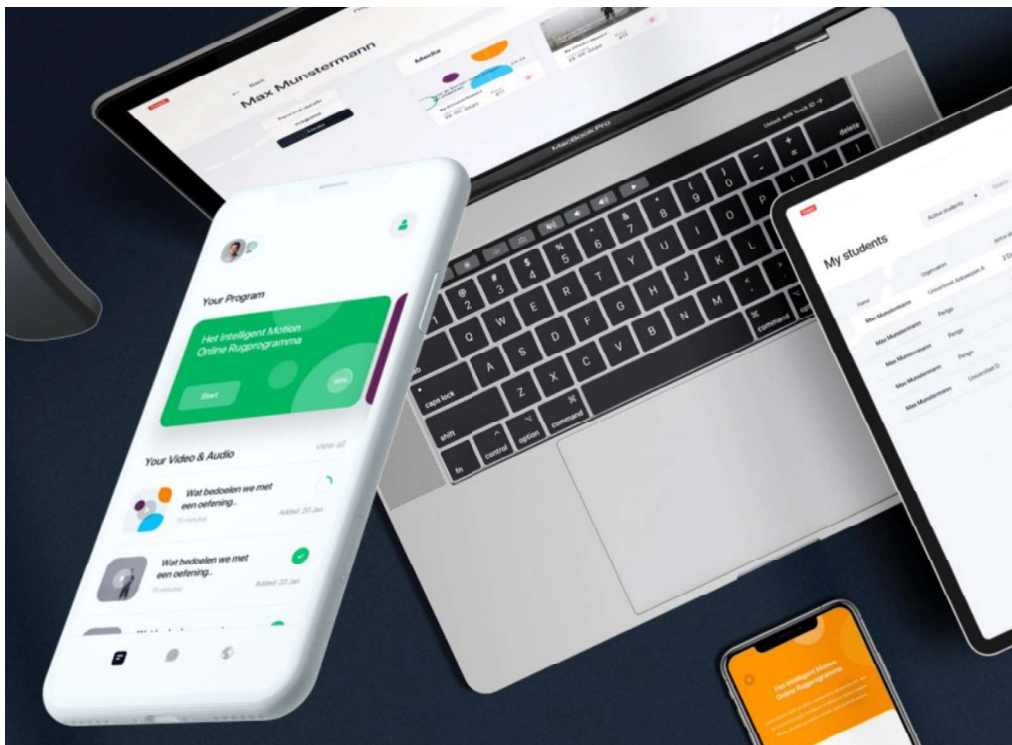
MoNoA

Overview

MoNoA, an online platform that aims to democratize well-being and make data on one's health accessible to all, has created a wearable that tracks the level of stress, accompanied by an app where the data are collected and then analyzed to see the impact of the stress on the physical and mental health of the subjects. It also offers many health therapies, with exercises and coaching methods aimed at listening to the signals of your body. The main goal is to get more and more of your body day after day, to gain awareness of what works for everyone and what doesn't.

Lesson learned

In the field of medical devices, 2 main factors seem to shape the healthcare environment: improving the productivity of healthcare professionals through optimization and automation, and putting consumer health in their own hands, improving monitoring and therefore prevention. Within this sphere, wearables, AI, telemedicine and personalized healthcare are just some of the forces that are rapidly gaining popularity. MoNoA fits perfectly into these trends, giving the client more options to monitor and manage their health.



**Alternative Food**

Cuure

Overview

Cuure is a French start-up, founded in 2019 by two young business men, who managed to make food supplements 'sexy' with a fresh look and a colorful brand identity suitable for the Instagram world. Cuure is aimed at the target ranging from Millennials to Generation Z - used to consume on the Netflix model - and through an algorithm, doses the supplements based on individual needs, sending them directly to home. On the website, moreover, the supplements are presented with descriptive profile cards, in which it is indicated what they need to respond to; the feeling is the same as when browsing the Netflix catalog of proposals.

Lesson learned

Even supplements can become sexy and captivating for a young target, using the Netflix model (all by subscription), effective communication and an app to do everything from the comfort of your smart phone. The subscription business model in fact is among the winning solutions to intercept a young target, especially if combined with a defined brand identity and coordinated communication.

Competitiveness between companies has grown and many sectors are now saturated. The so-called "servitization" emerged among the most adopted strategies.



**Alternative Food**

Foodspring

Overview

Foodspring is a German company and one of the best-known sports nutrition brands of the moment. Founded in Germany in 2013 under the name of Egg, it brought Bio-certified protein powders to the market that revolutionized the industry.

It presents a wide range of different types of food, from protein powders to protein bars, protein balls, pancake mix, up to spreads; everything, almost always, with a vegan variant.

It also takes care of maintaining a close relationship with customers, offering recipes, advice and workouts in its blog.

Lesson learned

It has built a series of products suitable for all the needs and food preferences of consumers. In addition, the e-commerce of fitness foods is quite well known thanks above all to the influencer marketing strategy that has been particularly strengthened in recent years by rapidly growing online sales. In fact, many online shops in the sector have managed to dramatically increase their sales through collaboration with some influencers. Foodspring is also sold in special corners in supermarkets and pharmacies.





Do It Yourself



Lucia Magnani health Clinic

Overview

A popular phenomenon is to combine wellness, health and social media. In the Lucia Magnani Health Clinic in Castrocaro you can spend days of relaxation and well-being between meticulous check-ups and sessions in the gym, whirlpools in thermal water and moments of pause with the background of violin and piano live, a walk in the large secular garden and a gourmet but strictly low calorie meal. Many influencers have chosen this new way to cut themselves off from the world and recharge their batteries, promoting a new kind of relaxation.

Lesson learned

The recent success of clinics of this type highlights the great rediscovery and interest in health issues and its monitoring. Not only hospitals and private clinics, but also new structures based on well-being.



**Do It Yourself**

INDOO DI X-Plast

Overview

An innovative solution for diabetic people is represented by this product concept. This is a series of smart caps for use with INDOO insulin pen. The system aims to reduce pain and improve the experience in managing diabetes, in order to make it simpler and more discreet. These smart caps also offer the possibility of connecting the pen to an app on your smartphone so as to have your data always tracked and always at hand. The design project is signed by Luca Lili Takacs and Csilia Antal for X-Plast and demonstrates the trend towards digitization of daily care.

Lesson learned

Making a daily practice necessary to preserve one's health less boring and more digital is an increasingly felt need and therefore to be exploited in the medical field.

It is also interesting to observe how the instructions on the operation of the product - in the packaging concept shown in Figures - are printed directly on the package and made clear and easily legible through bold characters and figures.





Customization



CP40 Locker

Overview

Amtek, a company specialized in the production of vending, locker and kiosk solutions, and Control, a brand active in the sexual wellness market, have launched CP40 Locker on the market, a project that integrates locker and vending machine, to offer the customer an experience purchase that merges the physical channel with the digital one.

CP40 Locker allows the purchase of medicines remotely via app, WhatsApp or by phone: once the order is placed, the consumer will receive a message with a PIN to access the locker or alternatively a QRCode.

It consists of a vending machine, a cold room and an ATM.

Lesson learned

Consumers habits have changed after the arrival of the pandemic: they prefer to shop online and pay contactless. In fact, post-Co-vi-d online pharmacy sales grew by 64% (Pharmacyscanner), while “contactless” sales in the traditional channel increased by 200% and, in parallel, purchase in multi-product vending machines grew by 23.5%.



**Customization**

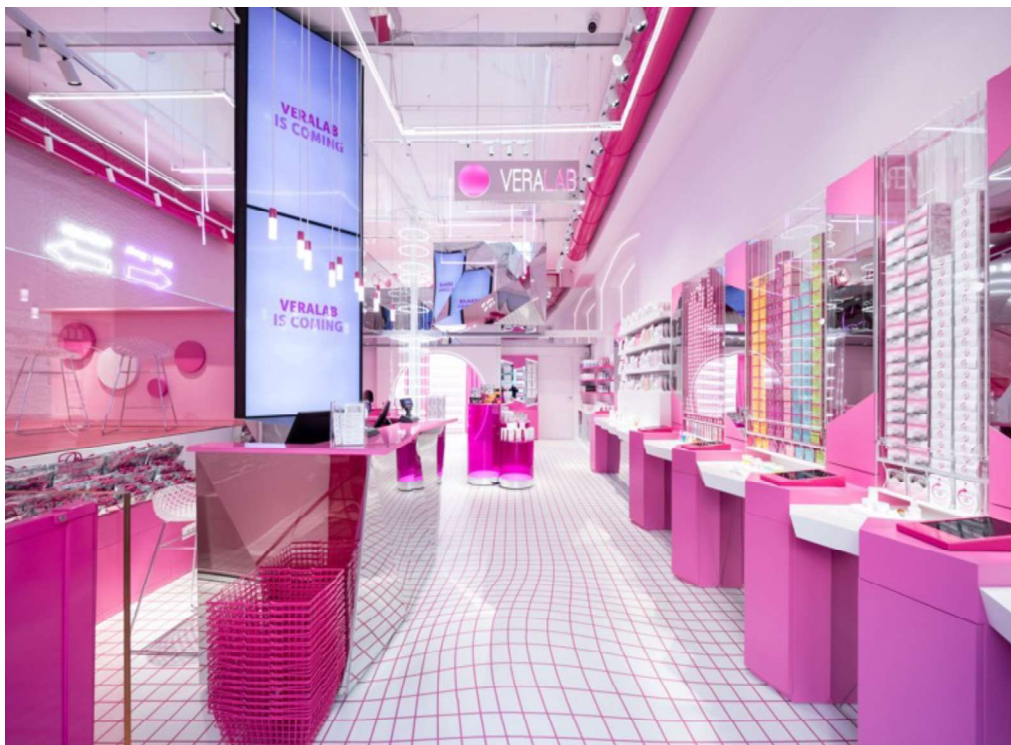
Estetista cinica

Overview

In 2015 Cristina Fogazzi, also known as the Estetista Cinica (cynical beautician), created VeraLab, a skincare and beauty routine brand, which in 2021 had a turnover of over € 62 million. In addition to the physical stores, all designed in a manner consistent with the brand identity, most of the products are sold on e-commerce, whose strategy is very clear: to collect as much data as possible to offer the customer a highly personalized experience. Furthermore, the brand is particularly attentive to environmental sustainability; in fact, the packaging is made with plastic recovered from the ocean and the raw materials used for the cosmetics are all natural.

Lesson learned

Thanks to the collection of data through e-commerce, to the various tests on the website in order to better advise the customer, or thanks to the “Create your gift” section, the purchase path is tailored to preferences of the customer, increasing the probability of purchase and also his/her satisfaction. Surely the sales boost was also a consequence of the arrival of the pandemic, which pushed everyone to take care of their skin and look for quality and Made in Italy products. Inside the stores, packaging recycling is encouraged with a prize mechanism.



**Customization**

Planners One

Overview

The Planners One architecture studio is a company specializing in the design and production of interior furnishings for pharmacies and offices. It develops projects that aim to take care of the interior design by proposing custom-made furniture projects, modular furniture systems and innovative products, able to take into account the criteria of strategic positioning of the product and visual merchandising.

Lesson learned

The pharmacy of the future will represent a point of reference for the well-being of people and the local area. For this reason, its design will include modular solutions, attentive to the criteria of sustainability and integration with respect to the external context.

In the interior setting, on the other hand, the focus will be on the compatibility between the most innovative technologies, the characters and the quality of the atmosphere of the reception space and the logic of an innovative, coherent and correct commercial relationship between products and people.





Purity



Natede di Vitesy

Overview

Natede is an air purifier with a monitoring system that works by increasing the natural power of plants to eliminate VOCs (volatile organic compounds) from the air. It is equipped with a photocatalytic filter that captures and eliminates the smallest particles of pollutants, viruses, odors and bacteria. It has sensors for temperature, humidity, VOC, PM 2.5 and CO₂.

Natede uses phytodepuration, the natural ability of plants to absorb atmospheric pollutants and transform them into nourishment for the plant itself thanks to the presence of microorganisms near the roots.

Lesson learned

There are plants that are able to improve the quality of the air you breathe and lower pollution inside the house, through the chlorophyll photosynthesis. The purchase of plants is increasingly common and for this reason some technologies have been inspired by them: air purifiers.

The focus is on the lesson that nature has taught itself to develop a technology. The science involved is called biomimetics, a discipline that expresses the link between biology and technology, where the former represents the primordial model to strive for and the latter represents the means by which to reproduce its functioning in materials and structures.



**Purity**

O'airy

Overview

In order to underline its purpose, O'airy has associated its revolutionary product - the first food supplement to respond to air pollution - with a revolutionary packaging. The product looks like a capsule with a liquid inside and we wanted to make the packaging the same. In fact, thanks to AR technology, by scanning the QR code on the package and downloading the connected application, it is possible to see the packaging in 3D and the liquid inside the capsule moving by shaking the box and "purifying" the castle designed inside. This way the consumer will be more aware of the effects of this supplement on himself.

Lesson learned

People in cities around the world are all affected by air pollution. O'air is a brand that has produced the formula of the supplement for air pollution for the first time and in doing so has decided to attract and involve the consumer through packaging. In other words, it felt that the special nature of the supplement should result in a special package. It reminds consumers of the uniqueness of the formula and the fact that it is different from the uniform packaging of other supplements. In a way, it engages the consumer with this fun aspect.



**New Families**

The Coral

Overview

The Coral is a system that allows you to combine sustainability, furniture and a healthy diet. It is a modular system designed by Hyunseok An, a graduate student in industrial design from the Rhode Island School of Design. It is made up of 16 cells supported by wooden supports, inside which you can grow the algae necessary to feed all the members of the family. Each cell has a coral-like pattern on the surface, an aesthetic expedient that also serves as a reminder that algae prevent coral bleaching. Finally, The Coral also helps to combat air pollution.

Lesson learned

This modular project is successful as it is practical and aesthetically satisfying. One of the main objectives of the project is also that of education; in fact, the coral motif aims to raise awareness among users of the important role that algae play on an environmental level. The young designer hopes in this way that the product will encourage people to reimagine their relationship with algae and to make a greater effort to incorporate sustainable choices into their lifestyles.





New Families



Hemplab Pets

Overview

The Hemplab Pets product is a compound of hemp oils for pets. The visual identity of the product is to be associated with the relationships that humans establish with the pets they love. The Hemplab brand has a very essential and minimal visual identity for products for human use (prevalence of white and green logo); for its pets products it has instead opted for a much more emotional packaging. Pet products are the result of an innovative method of obtaining oil from hemp fiber, without using harmful chemicals.

Lesson learned

Pets are increasingly regarded as a member of the family. Their humanization is a key factor in guiding marketing strategies as well as an important sign that the pet economy is a constantly growing market. The colour of the packaging and the illustrations underline the relationship of affection existing between the man and the puppy to be treated. Emotional leverage is one of the determining factors in pet owners' purchasing decisions.





Nuove Famiglie



Omtänskam

Overview

Through the Omtänskam line - which in Swedish means 'caring' - IKEA wants to try to intercept and satisfy everyone's needs, from younger to older. To do this, it has collaborated with ergonomics experts, intercepting the real needs of people and has developed a series of furnishing products that can be used by anyone, without forgetting the Scandinavian style that characterizes the brand. Therefore, the products in this collection are designed to combine ergonomics and design: a footrest with the right angle to extend the legs, easy-to-grip and non-slip glasses, or pot holders that help unscrew any lid.

Lesson learned

The Covid-19 pandemic and the consequent lockdown have made us think about how important the home space is and how comfort and health are central. The theme of ergonomics is central not only in the products, but also in the packaging that contains and protects them.

With this line, IKEA is able to grasp these daily needs and interpret them without forgetting the dimension of design.





New Families



Familia

Overview

Studio Fantasio, a Belgian studio of product designers, has designed Familia, a series of smart objects that includes a 'cuckoo' clock with a drug reminder system, a magnifying glass that is also a lamp and a mirror that allows you to make video calls, with the aim of restoring dignity to the elderly. The objects are designed to look like everyday objects, they are not stigmatizing, and offer subtle features that address the challenges of older adults such as memory loss, health problems, vision damage, and isolation.

Lesson learned

In a reality where the world population is aging, the need to design products that bridge the differences between generations is central. Familia manages to fill this gap with an inclusive and playful spirit and also allowing better management of elderly parents.





New Families



Surface Adaptive Kit di Microsoft

Overview

Microsoft has created a series of labels that make your laptop or tablet easier to use and make it more accessible. Tactile labels for the keycaps help identify the keys that are important to touch, while the matching, textured cable bands and door stickers help align cables with the correct ports and, finally, a final set of stickers allows you to open your laptops with ease.

Lesson learned

This set of labels allows you to customize your technological supports according to your needs; This simplifies the usability of the various devices and makes technologies more accessible and inclusive. In the design of products and packaging it is therefore also necessary to take into account users with disabilities and limited dexterity. An interesting solution because it is easily modulated and customizable is the one proposed by Microsoft, which with simple stickers has managed to take an extra step towards inclusion (see also Xbox Adaptive Controller in Figures).





New Families



NaviLens per Kellogg's

Overview

A significant step towards a more inclusive shopping experience, which allows more autonomy to blind and visually impaired people, helping them to orient themselves both in the choice of products and in the management of the same has been implemented by Kellogg's. NaviLens codes to make all information about their products accessible to visually impaired people. It is a combination of a simplified QR code and an application, NaviLens, which allows people to use a smartphone to scan the environment and access relevant information in audio form.

Lesson learned

What is happening in the food sector could also happen in the world of pharmacies, where the consumer will increasingly expect to be guided and accompanied towards the knowledge of the product.

The consumer, in fact, is always looking for a greater awareness of self-care. We hear more and more of conscious consumers. People no longer accept to be followed from the point of view of assistance without being promptly informed about the therapies, therefore without being able to "co-design" the response to their needs and fears.





New Families



Band-Aid Ourtone

Overview

Band-Aid (brand di Johnson & Johnson) ha annunciato il lancio della sua linea di cerotti inclusivi, offerti in cinque tonalità diverse - dal beige chiaro al marrone profondo - per fondersi con la pelle di tutti i possibili clienti. La rappresentazione della diversità, ad oggi, è già considerato uno standard, dunque una *commodity* che i consumatori si aspettano che i marchi soddisfino. L'azienda, inoltre, è attiva sul fronte sociale e sostiene molte iniziative tra cui *Our Race to Health Equity*, che mira a dare un contributo nello sradicamento dell'ingiustizia razziale e sociale, aiutando in particolare a eliminare le disuguaglianze sanitarie per le persone di colore.

Lesson learned

In qualità di luogo e punto di riferimento per la comunità in cui si inerte, la farmacia del domani non potrà non trattare tematiche di interesse e impatto sociale. La riconoscibilità dei prodotti, nonché il marketing e la comunicazione, saranno una leva fondamentale per l'esperienza di acquisto.





Neo-nomadism



Acuvue Theravision

Overview

The FDA recently approved a new prototype of contact lenses developed by Johnson & Johnson that are not only able to correct vision, but also able to administer drugs. Their main goal is to treat itchy eyes caused by allergies. By taking advantage of the lenses, patients will no longer be forced to use eye drops or other solutions.

Lesson learned

Allergies (and intolerances in general) are increasingly common among the population. New, simpler and more convenient product solutions to meet this growing need are increasingly in demand (see the research project for the Allergy Survival Kit product and packaging, shown in Figure Below).





Neo-nomadism



Emergency Bikes by Ecox

Overview

The eco-mobility company Ecox Enterprises, in collaboration with Wunderman Thompson, a creative agency, Urgences Médicales de Paris and Urban Arrow, created the Emergency Bikes. These are electric bicycles that have a range of 160km, equipped with an isolated storage space for medical supplies. They also have a 140dB siren, an integrated GPS tracker and long range lights. The goal is to ensure home medical care despite the Parisian traffic.

According to Ecox, Emergency Bikes allow emergency doctors to cross Paris, up to twice the speed of any other vehicle.

Lesson learned

This is a project born during the pandemic period, when most of the citizens of Paris were forced to use cars instead of public transport for daily commuting. Furthermore, it also highlights how an environmentally sustainable means of transport can meet the needs of society, forced to live and move in increasingly congested cities.

In the event of a medical emergency, lost time can mean lost lives.





Neo-nomadism



Genuina Pet Food

Overview

In space one can suffer from various diseases. This is why astronauts are always on drug treatment.

In the spacecraft, the package containing the drug is used exactly as it is used on the ground. Yet there is a greater risk of medicine being scattered and lost; Furthermore, it is sometimes difficult to drink water, so a strategy must be devised to effectively swallow it.

With the Space pill pack, simply press the button and the medicine goes directly into the mouth.

The search for space could be a point of reference for intercepting innovative solutions. Furthermore, the same difficulties in taking pills can be found, for example, in those who travel a lot (by public transport or by car) and therefore have to take their medicines in contexts where sudden movements can make them fall or where their hands are not always sanitized or, also, in the elderly population with poor joint mobility or with Parkinson's disease.

Lesson learned



**Neo-nomadism**

Space pill

Overview

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**Neo-nomadism**

Emme

Overview

EMME's mission is to put women's health in women's hands. The first product launched by the company relates to the contraceptive pill. It is a system consisting of a smart case connected to an app. The smart pouch works with more than 100 different brands of birth control pills and, thanks to Bluetooth technology, synchronizes with an app that sends personalized reminders to remind the user to take the pill if it is not removed from the pouch; in addition, it offers home delivery of the pill and allows users to monitor their cycle and mood.

Lesson learned

New solutions meet issues such as: mobility, reminders, privacy and satisfying solutions also from an aesthetic point of view. In fact, the appearance of the case is that of a small colorful purse or card holder or it can even give the impression of guarding the latest iPhone model. So it's perfect if you want a container that hides birth control pills "with style".

Finally, despite the high cost (about \$ 100), the reviews are very positive and indicate the effectiveness of this product.





Packaging Revolution



A4Adesign

Overview

A4Adesign is an architecture and design studio specializing in the creation of cardboard displays, furnishings and objects for events, fairs and shops. Their proposals are designed to create eco-friendly showcases and temporary displays, but also to furnish the home and office.

The honeycomb cardboard is made of recycled paper but has always been used as packaging. A4Adesign recognizes its aesthetic status and reveals it by making it the protagonist of their creations.

Lesson learned

Everything revolves around cardboard, an ecological and easy-to-manage material of which they are specialists and whose versatility they exploit, taking it to the limit of its potential. They enhance the aesthetic side by combining it with other natural materials such as wood, iron, glass, terracotta, sand, felt and other fabrics.

Their installations and their set-ups offer an interesting source of inspiration to understand the potential inherent in cardboard, also from an aesthetic and design point of view.





Packaging Revolution



Lezio.it and Tila

Overview

The trend to buy indoor plants is increasingly common among Millennials and with it the proliferation of e-commerce and plant delivery services.

This highlighted the need to devise innovative methods to ship and protect the precious plants ordered. There are several solutions in use: from the most functional ones (like the method of the lezio.it website) to the more aesthetic ones (like the idea of the designers Paola Parodi and Yolanda Santamaria, who created Tila, an ecological packaging that manages to increase the value of the plant, protecting it and at the same time putting it on display).

Lesson learned

For plant lovers, packaging is a key element. In fact, great attention is paid to the fact that it is 100% green; this means packages made only with recycled and recyclable material, trying to minimize the use of plastic or synthetic materials. Even in the case of “aesthetic” packaging, it is minimal, or rather essential, so much so that the main element is air: it is made up of a cardboard structure and a recycled PET thread that supports the plant.



**Packaging Revolution**

Vive by Burpee

Overview

Vive is a gardening starter kit from Burpee, which aims to introduce a new way of gardening in a few simple steps. The bucket provides all the tools necessary for the entry level gardening experience: seeds, fertilizer, rake, shovel and label. The challenge when designing this product was to design a whole set of tools for beginners and children in a minimal form, so as to reduce waste and costs. The unique shape of Vive is inspired by a bucket that can be easily carried by children and spontaneously associated with play.

Lesson learned

Solution in which the packaging itself becomes an enabling tool for the use of the product it contains. In addition, the image on the side of the Vive package helps consumers recognize the type of seeds contained and the handle itself, when detached, becomes the multipurpose tool for planting seeds.





Packaging Revolution



Biodegrapack

Overview

Winner of the Young Balkan Designer Award 2019, George Bosnas has designed Biodegrapack: a recyclable egg carton that, once planted in the ground, produces legumes.

The packaging is made up of paper, flour, starch and seeds but, despite this, it is sturdy enough to protect the eggs inside.

On the market there are various product solutions that, once finished, can live a second life in the form of seedlings or flowers. This is also the case, for example, of the Marie Bee Bloom mask, a type of disposable mask, which can be planted and made to bloom “after its use.

Lesson learned

Seed-paper is a material that in recent years has been widely used in everyday objects, including notebooks, pencils and other articles and, albeit with certain technical and low-scale limitations, also in cellulosic packaging to create packages with a strong value that is symbolic and evocative.





Packaging Revolution



Pack biodegradabile di Tomorrow Machine

Overview

A duo of Swedish designers, Hannah Billqvist and Anna Glansén, are developing biodegradable cellulose food wrappers in which to cook food and then turn into bowls, to be dissolved in water or thrown into compost. The product is called Sustainable Expanding Bowl and is a wrapper designed to be used with all types of freeze-dried food. In addition, the design duo Tomorrow Machine proposed three biodegradable prototype wrappers: Basmati rice, olive oil and a raspberry smoothie, with the particularity that the packaging has the same shelf life as the food it contains.

Lesson learned

If we look to the future, this could be the next generation of sustainable design packaging, which uses materials that are both smart and eco-friendly, and which was born from combined knowledge of scientists and the creativity of designers.





Packaging Revolution



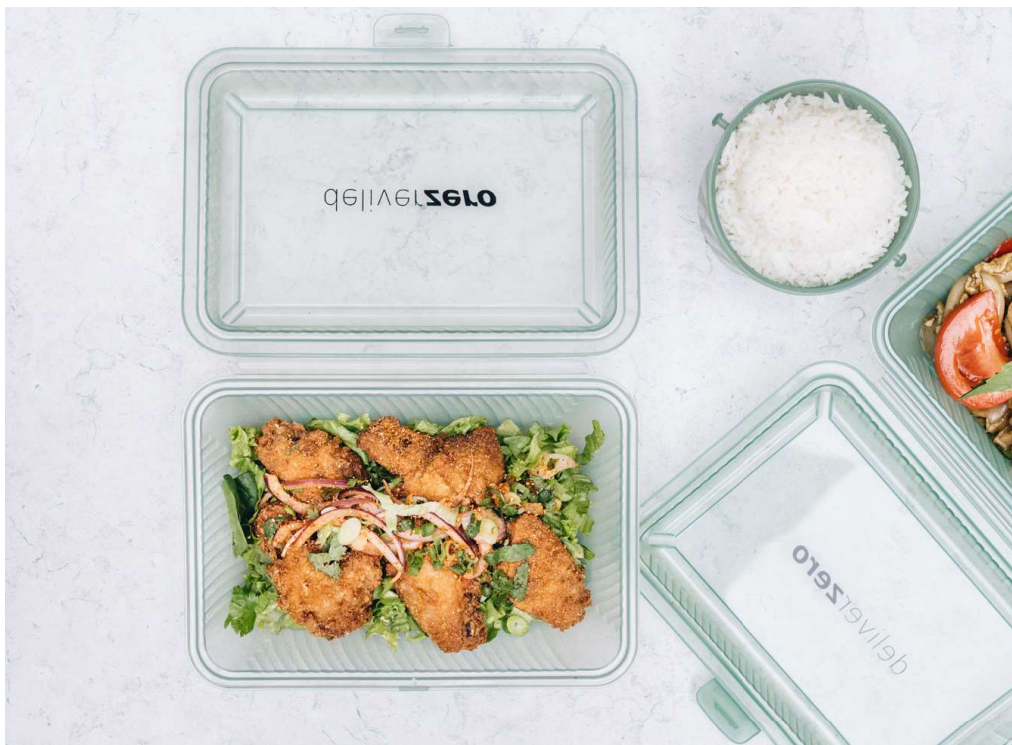
DeliverZero

Overview

DeliverZero is a home delivery service operating in New York, whose peculiarity is the reusable packaging: the containers are in fact returned to the delivery man at the next order or directly to one of the 100 restaurants participating in the initiative no later than 6 weeks; otherwise, \$ 3.25 is charged for each container not returned. The packaging can be used up to 1000 times, it is practical, as it is light, easily stackable and can be used to heat dishes in the microwave.

Lesson learned

Although the containers used are more expensive than disposable ones, they produce long-term savings for restaurants and, above all, reduce the production of single-use plastic. DeliverZero proposes a solution to the problem of plastic disposal in a period where attention to the environment and health becomes increasingly important. Projects like DeliverZero are strongly approved by the customers.





Packaging Revolution



RePack

Overview

RePack is an e-commerce packaging that can be reused up to 40 times: it is made available to participating companies and their customers, who have the sole task of returning it. Furthermore, to encourage the consumer to choose this alternative, once the package has been returned, a 10% discount is activated that can be used at any retailer participating in the RePack circuit, thus triggering a virtuous circle. Recyclable packaging, in addition to ensuring environmental benefits, is also advantageous from an economic point of view, leading to an increase (up to 30%) in the average order value and a reduction in packaging costs.

Lesson learned

The reuse of packaging also in e-commerce represents a closed-cycle, a circular process, where the packaging is not wasted in a single journey, but retains its functions without losing value within life cycles that can also last for years. Seen from the customer's side, the difference arises when the container has finished its function and instead of being thrown away, it is returned, by post or other delivery method. The packaging is then returned to an additional logistics hub, where it is cleaned, reconditioned and sent to distribution centres.



**Packaging Revolution**

Lia by Lia Diagnostic

Overview

Lia is the first pregnancy test that guarantees privacy and respects the environment, being completely biodegradable. It is made of the same cellulose used for toilet paper rolls and deteriorates in 10 weeks and therefore can be thrown directly into the toilet. The problem of plastic pregnancy tests - meant to be used only once and then thrown away - had never been solved before Lia. In addition, the packaging also respects privacy as you can choose to buy the “Ultra Discrete” package, a completely white pack, without anything written on the outside.

Lesson learned

Until now, home pregnancy tests were only available in plastic and it often happened that they were thrown on the ground because the person wanted to keep the result secret and didn't want anyone to find their test in the trash. Lia has solved both problems with a sustainable solution that guarantees privacy from the purchase phase to the disposal phase.





Packaging Revolution



Remix

Overview

Remix is a children's vitamin brand that has created pads in the shape of gummy bears.

The candies also have a strawberry flavor, which is why pink was chosen as the leitmotif of the entire packaging. Furthermore, to attract the public to which they are addressed, that is the very young, a strawberry-superhero has been inserted, symbol of the greater strength given by the candy.

Lesson learned

The vitamins in the shape of gummy bears, the captivating colors of the packaging and the choice to create a new superhero allow the world of medicine to get closer to children in a simpler and more immediate way. The ways in which companies turn to the childhood market are different, but all united by a single goal: to attract the child immediately and try to create a future relationship of loyalty to the brand.





Packaging Revolution



Green Gold Promama

Overview

Green Gold, a Chinese health and beauty brand, has launched Promama-Yogurt, a product containing probiotics designed specifically for children with allergies or with gastrointestinal problems. The packaging also combines the child's need to play and explore with attention to the environment. The box, in fact, can be used by children to carry out new activities, cutting out the figures and playing, or, given the simple and clean design of the box, it can be recycled into paper or reused to contain other material.

Lesson learned

Trans toying is a technique used by marketers that consists of transforming everyday products into objects to play with. The most common examples are toothbrushes, bubble baths and shampoos that resemble cartoon characters or vitamins in the shape of animals. Packaging can also be used for this purpose, creating fun silhouettes to use as a toy.





Packaging Revolution



Pediabest

Overview

A group of Iranian designers have found a solution to one of the most common problems for children, namely taking medicine. To facilitate this operation, inspired by pop-up books, they created a packaging with which to tell a story. Thanks to its interactivity, packaging thus makes the child grow a sense of curiosity and familiarity. An animal waiting for the pill is drawn on the box; once the box is opened, the effect of the medicine on the animal can be seen. In this way, parents will be able to tell a story through the packaging and entertain the child during the administration of the medicine.

Lesson learned

The storytelling technique is very effective in captivating children and relieving the fear of taking medicine. In this case it is food supplements: Pediabest is a leading brand in children's health based in Portugal, Lisbon, that produces a range of supplements specifically intended for children. Creating a collection of animal characters with distinctive characteristics (such as a bear known to sleep in the winter or a giraffe known for its height, or a deer with long horns) is useful in explaining the function of the drug and at the same time entertain the children.





Packaging Revolution



Natural Doze

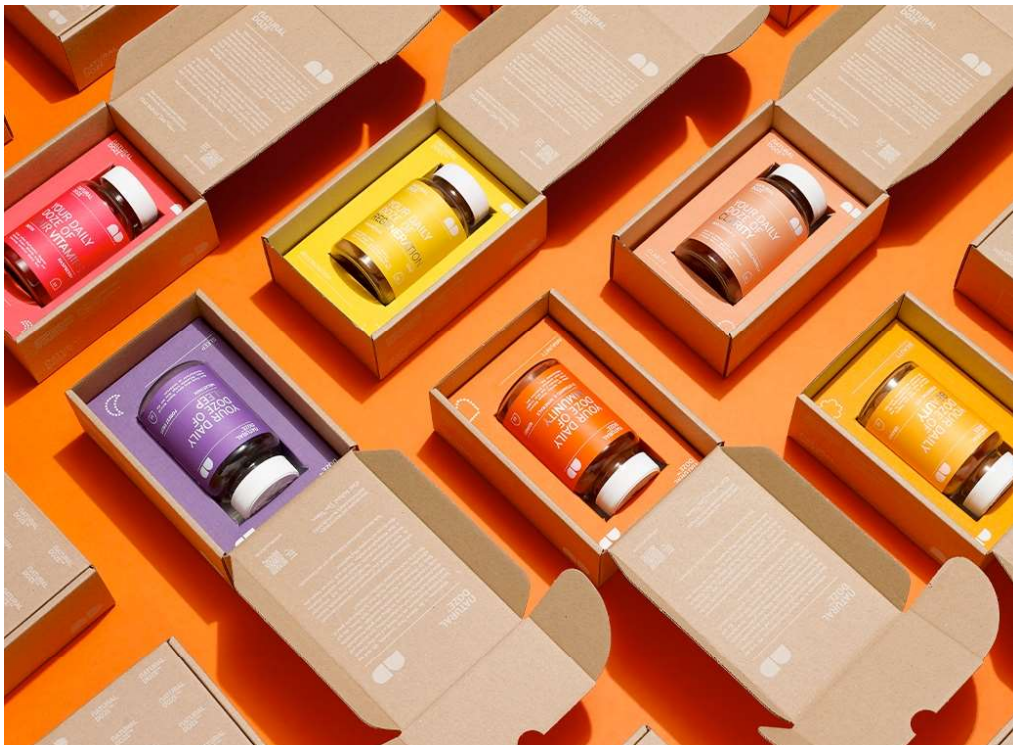
Overview

The Natural Doze brand has “dressed” its products in an original way that is a series of vitamins and food supplements. On their site we read that precisely in order to differentiate themselves from most of the brands of food supplements, which have a “pale and boring appearance that gives the feeling of buying a medicine”, they have decided to present their products with a colorful and sexy one.

They also claim that they do not want their products to be hidden in drawers, but that they must have a positive effect on people from their packaging. Finally, the packages are made of sustainable and recycled materials: rPET, cane sugar and linen for the labels and stickers.

Lesson learned

Health, as well as the products that help to preserve it, doesn't always have to be boring and perpetuated only as a duty that combines discipline and routine. Dietary supplement brands like this one believe that we need to think of health differently, because everyone deserves to have fun and enjoy it.





Packaging Revolution



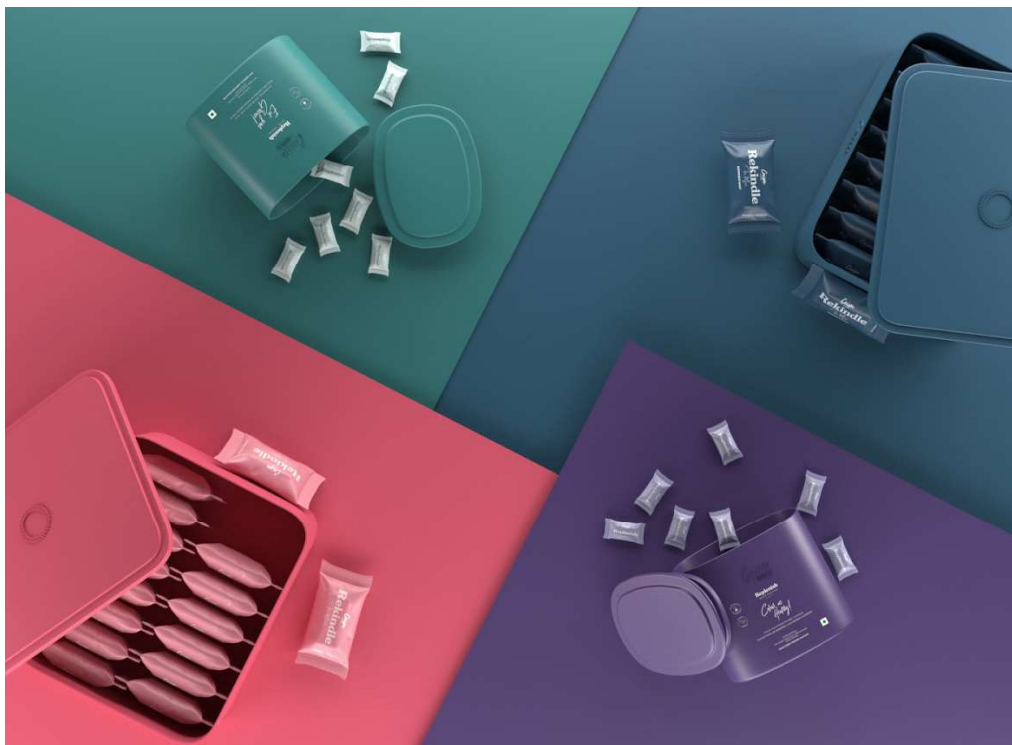
Caim by årelang

Overview

Caim by årelang is a range of supplements that come in the form of candy, made with powerful plant extracts and designed to integrate seamlessly into everyday life. The årelang Naturals company specializes in offering nutritional solutions rooted in centuries-old medicinal remedies. Distinctive is the packaging used: a box with standard shapes available in different colors, which can be reused and which has a locking system that prevents them from slipping, once stacked. In addition, the containers are completely safe for use in the microwave, dishwasher and freezer.

Lesson learned

The problem of non-recyclable waste arises from a bad design of the initial project of what is a plastic product, especially as regards packaging. The research pushed into the production process does not take into account the end of life of the product, therefore it is desirable that in order to meet the needs of the planet it is understood that it is necessary to start from a different approach, which considers the needs of producers, recyclers and, of course, interests of the community. Designing a package already considering its second life is a solution that goes in this direction.





Packaging Revolution



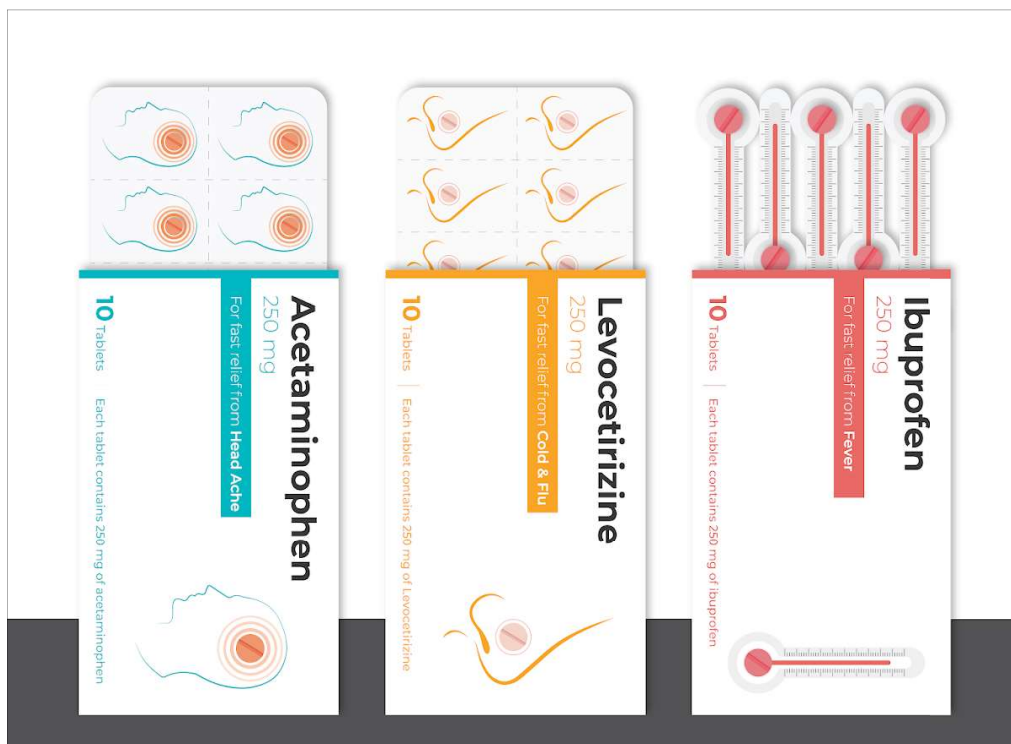
Sim-Pill

Overview

Sim-Pill is a packaging concept for some over-the-counter drugs to make them easily and instantly recognizable to everyone. For example, in medicines that are used to relieve fever it was thought to affix the figure of a thermometer to create an immediate mental association, and for the drugs to relieve cold and flu or against headaches they have drawn a nose and a head on the back of the primary packaging.

Lesson learned

Medicines are often stored at home in a box or drawer full of medicines. It also often happens that, due to lack of space, the box is thrown away and only the primary packaging is kept; this means that it is no longer possible to immediately understand the connection between medicine and therapy. The same problem also emerges with equivalent drugs which, due to the great popularity of some brands and the lack of knowledge of the active ingredients, do not easily reveal their effects except in the package leaflet.





Packaging Revolution



B.O. Cal

Overview

Prompt Design agency has created an original packaging for the calcium tablets of Newcharoen Pharmaceutical L.P.

The original shape of the packaging effectively illustrates the benefits of the pills contained within. The HDPE bottle has a shape that resembles that of a bone and designed so that it can be stacked together with other packs to form a spine and to convey its benefit and help promote its sale. Even the logo copies the anatomy of the spine with dots and letters arranged like an S curve.

Lesson learned

The world of Pharma Retail, especially in recent years, has undergone a sudden and profound transformation in the way of seeing the business, in its management and mentality. In turn it has changed the market, inducing the pharmacist to watch and predict trends, if not even to anticipate them. Furthermore, the pharmacist must also acquire good skills in commercial management of the point of sale, with knowledge of sales techniques and visual selling.



**Packaging Revolution**

Altay Vitamins Pharmaceuticals

Overview

To stand out in the pharmaceutical world, the Russian company Altay Vitamins Pharmaceuticals has created a recognizable packaging that can be easily linked to the brand. All the graphics are minimalist and follow the same style. In addition, thanks to the use of touches of bright colors on the pack, it is possible to cluster medicines according to the problem they solve. For the design of the packaging, three main criteria have been identified to be met, the presence of: a recognizable and easily replicable corporate element, graphic concepts understandable to the widest possible public and, finally, the evident corporate brand incorporated in the package.

Lesson learned

Altay Vitamins is one of the largest Russian pharmaceutical companies producing effective, safe and affordable products. The company's range includes around 100 drug names. An important task of the brand and packaging is to convey the image of the company and to successfully differentiate itself from competitors. Legislative constraints and the natural boundaries of industry and the product restrict the tools for working at the packaging level, making this task more complicated. Packaging design is one possible way.





Packaging Revolution



Packaging monodose V-Shapes

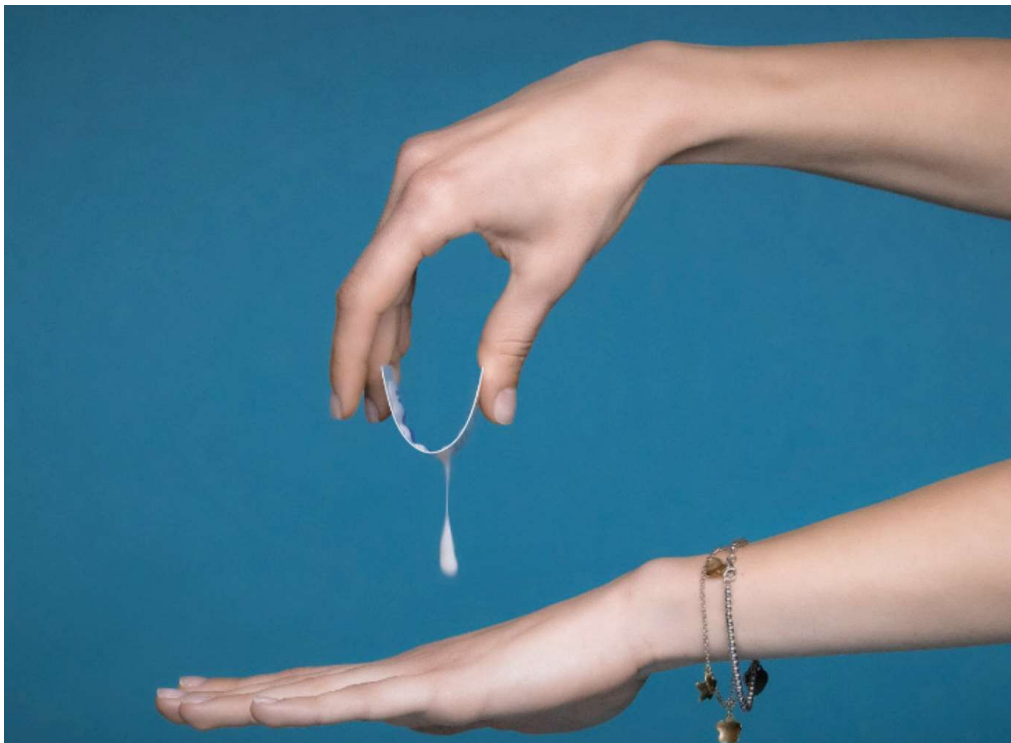
Overview

V-Shapes is an innovative solution for single-dose packaging in the medical and pharmaceutical sector. Regardless of which medicines are to be packaged in these sachets, liquid or granular, thanks to the special 'drop' opening, it will be possible to have greater control over the dosage and in the context of intake.

The company also states that V-Shapes single-dose sachets can be fully customized in order to attract new customers, increase brand loyalty and improve user perception.

Lesson learned

This type of solution is ideal for solving difficulties in opening for the elderly or disabled patients. Compared to traditional disposable packaging on the market, moreover, they allow the extraction of over 99% of the product, avoiding waste and dispersion of the contents in the environment.



**Packaging Revolution**

Fortune Pill (concept)

Overview

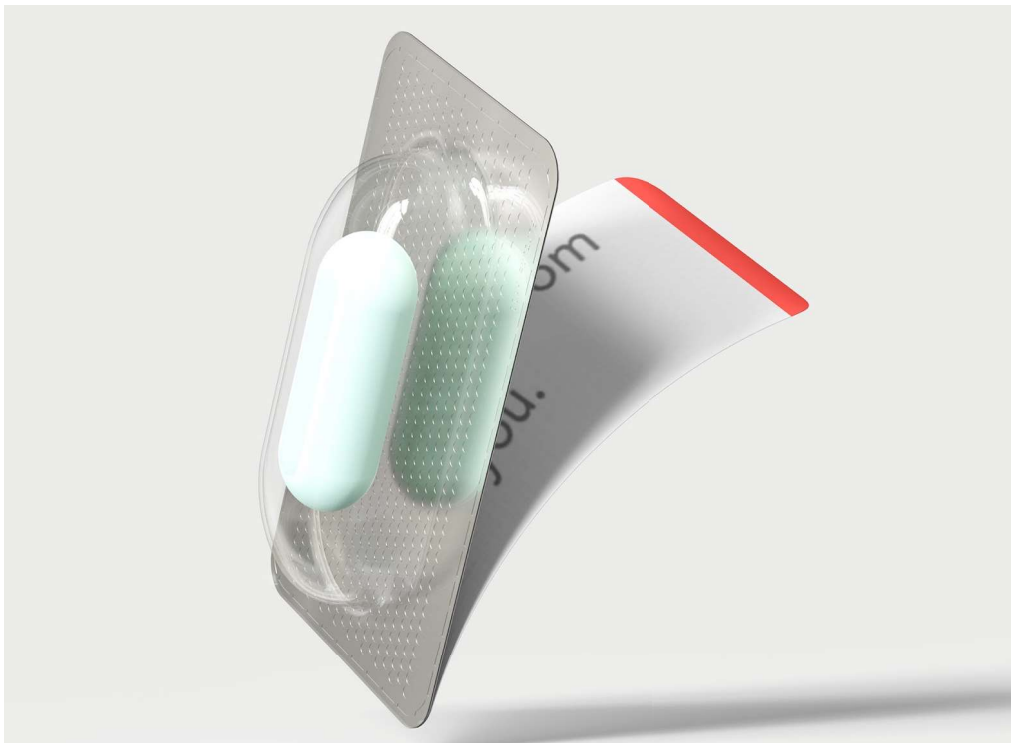
At the Bremen University of Arts, designer Jeongdae Kim designed the Fortune Pill.

It is a packaging designed to help in the daily intake of pills. With this product concept, the designer wants to offer people in therapy a small moment of pleasure through short messages contained in them. The inspiration was that of the fortune cookie and the feeling of pleasure that one feels when opening it and reading the message contained inside. The idea is that each tablet corresponds to a positive and encouraging phrase to better face the day.

Lesson learned

This concept, the fortune pill, helps people feel better and have a kind of emotional cure associated with drug treatment.

Designing by associating elements of gamification means taking the best of “games” to improve non-playful activities and experiences, often not very engaging. Gamification, therefore, does not mean turning something into a game, but it is intended to entertain, motivate and involve.





Packaging Revolution



Meet Molly by SHL Location

Overview

Meet Molly is an auto-injector pen designed by the creative agency CRE8 Design to help users understand how it works. In all of this, the packaging plays a primary role as, thanks to the warm colors and linear design, it visually assures patients that the pen is less intimidating than the typical injection tool that arrives in a generic sterile medical box.

Inside, the kit contains everything you need: injectors, test pads, booklet and a CD.

Lesson learned

The Meet Molly sample kit conveys the message of the contained product: simple, safe and accessible. The internal space is well structured and allows an easy access and storage of the injectors, the test block, the introductory booklet and the CD, and also facilitates the testing process.

Both the external and internal design of Meet Molly follow a consistent design language to provide a user-friendly and all-in-one package that breaks the stereotypes of traditional medical devices and improves the product experience.





Packaging Revolution



Philips One Blade

Overview

Philips OneBlade, launched in 2016, is a razor that uses a single blade to cut and shave facial hair.

Its packaging is designed to allow users to familiarize themselves with the product right away, as well as meeting the specific criteria for Amazon's frustration-free packaging.

The OneBlade packaging serves as a quick guide to address the tendency of users to use the product before reading the instructions.

Here, the guide on the box welcomes users, outlines the benefits of the product, and explains how to assemble it.

Lesson learned

Integrate the main instructions to the secondary packaging with a simple and direct communication, perhaps with the help of infographics and icons, is a useful solution to solve the failure to read the instructions before using the product. This is a known phenomenon and mainly linked to the fact that the instruction booklets have become more sterile, more difficult to read, with incomprehensible or even wrong illustrations. In fact, the manuals are created using a standard template which is then copied, making slight changes to each new product.





#

Professionalization

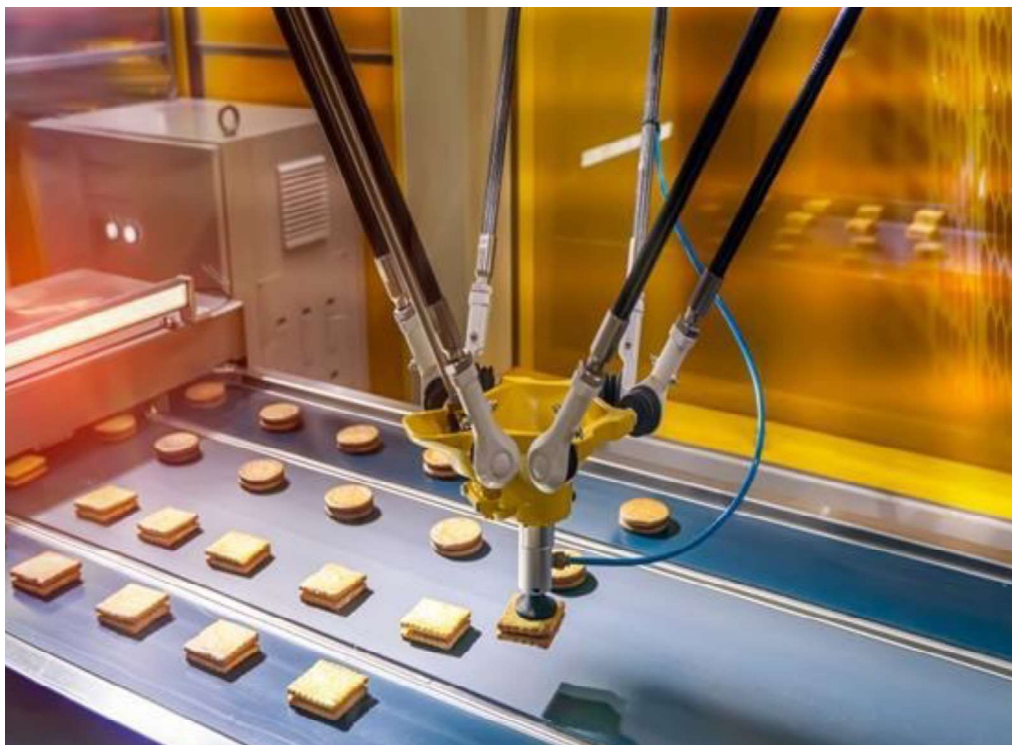
FSR Edible ink by Sun Chemical

Overview

Sun Chemical has launched its FSR range of edible jet inks, suitable for food customization, with verified direct food printing, including the one on baked goods. The technology is also suitable for the pharmaceutical and nutraceutical markets, such as printing on pills and capsules.

Lesson learned

The launch of the FSR range supports the trend towards food customization, presenting brands with the opportunity to add unique value and visual appeal to products. The customized packaging market is growing substantially, with the latest trend towards the personalization of the food product itself, in particular of baked goods.





Pharmacies personalized by gender

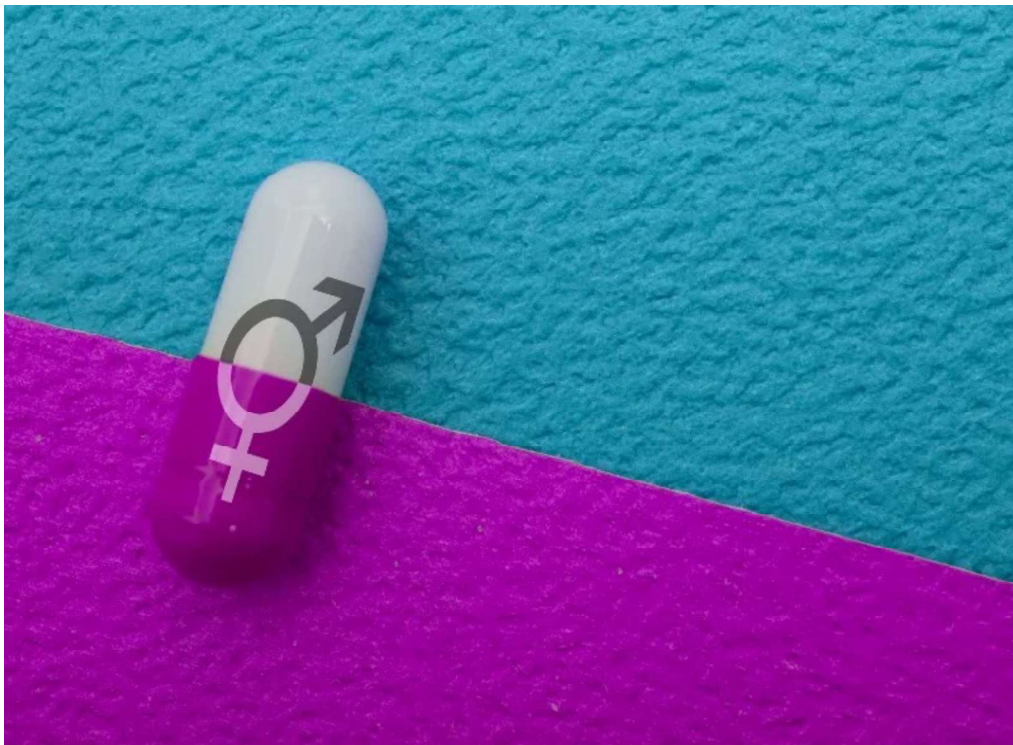
Overview

Traditionally, drug testing has been focused, both in the preclinical phase (i.e. in the laboratory on animals) and in the clinical phase (i.e. on humans), on a single model: the male one. This involved a whole series of cases in which a certain active ingredient had different, sometimes even adverse effects on female patients. In addition to hormonal variability, the male and female bodies have significant anatomical differences: the latter has smaller organs, a different composition, a different distribution of fat and lean mass and a different content of liquids.

Lesson learned

Genders have different responses to medicines. For this we need an approach of gender pharmacology, which is attentive to the existing differences and which moves towards a more inclusive experimentation (which also includes the elderly, pediatric patients and transgender people).

All the previously mentioned factors affect both pharmacokinetics (the process by which a drug is transported, absorbed and metabolized by our body) and pharmacodynamics (which instead concerns the biological and biochemical effects of drugs).



**Professionalization**

Sushi Teleportation by Open Meals

Overview

Japanese start-up Open Meals presented the system to digitize and 3D print sushi at SXSW2018 (South by Southwest) in Austin. To do this, a unique technology (Pixel Food Printer) is used that allows you to customize (e.g. flavour, colour, nutrition, etc.) foods down to the millimeter. The printer is connected to a Food Base, a database in which different types of food have been digitized and archived, distinguishing the data by taste, texture, colour, shape, aromas and ingredients. Open Meals believes it can also transmit the same data to astronauts who could even print a “home-made” meal.

Lesson learned

Pixel sushi is already a reality and it is available for consumers in the Tokyo Sushi Singularity restaurant, a place to eat sushi customized on their biometric and genomic data, but the real ambition of the collective of artists and scientists is to recreate traditional dishes from all over the world and broadcast them to homes and the International Space Station (ISS).





3D Printers Sygnis

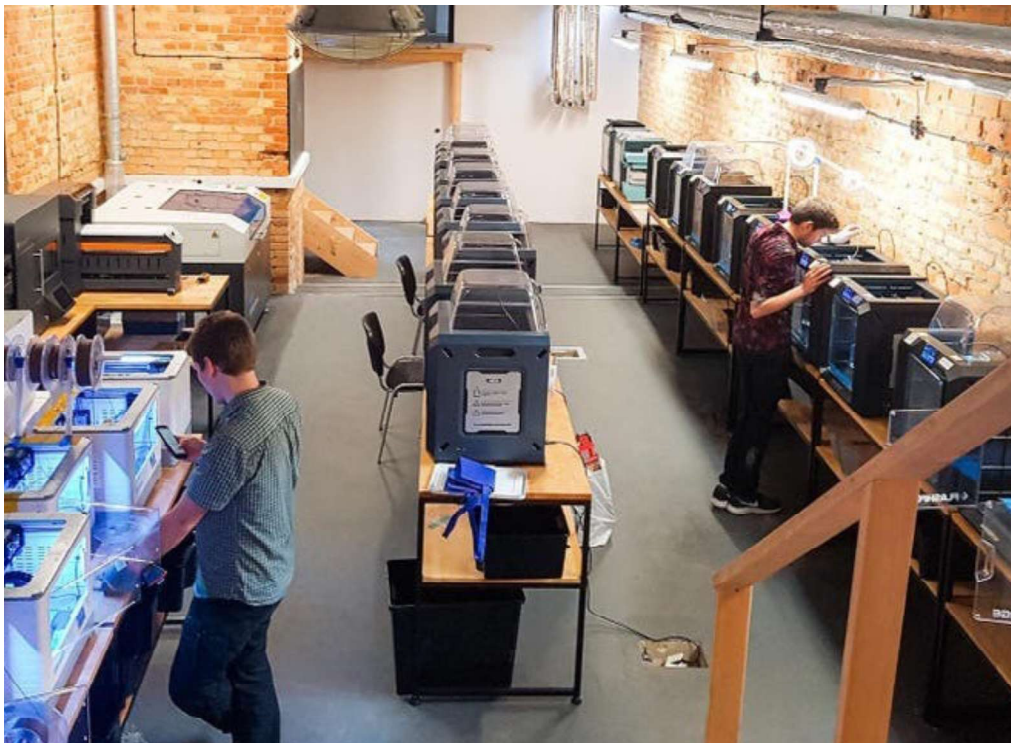
Overview

The recent emergency situation caused by the war in Ukraine has made evident the usefulness of 3D printing in wartime, thanks to its flexibility and speed that reduces the logistical difficulties of transporting the necessary supplies. Andrzej Burgs, founder and CEO of the Warsaw-based 3D printing company Sygnis, sent his 3D printers so he could allow the creation of protective gear, tourniquets and periscopes on site, as Sygnis printers use polymers or plastic materials.

To date, says Burgs, the initiative has created 10,000 pieces and objects for Ukraine.

Lesson learned

With 3D printing it is possible to completely revolutionize the supply chain linked to a specific production. The most extreme case involves making the open-source projects for the necessary components which are therefore no longer transported from one place to another, but are transmitted through sequences of bits and data and printed directly on site.





Pharmaceutical printers in 3D

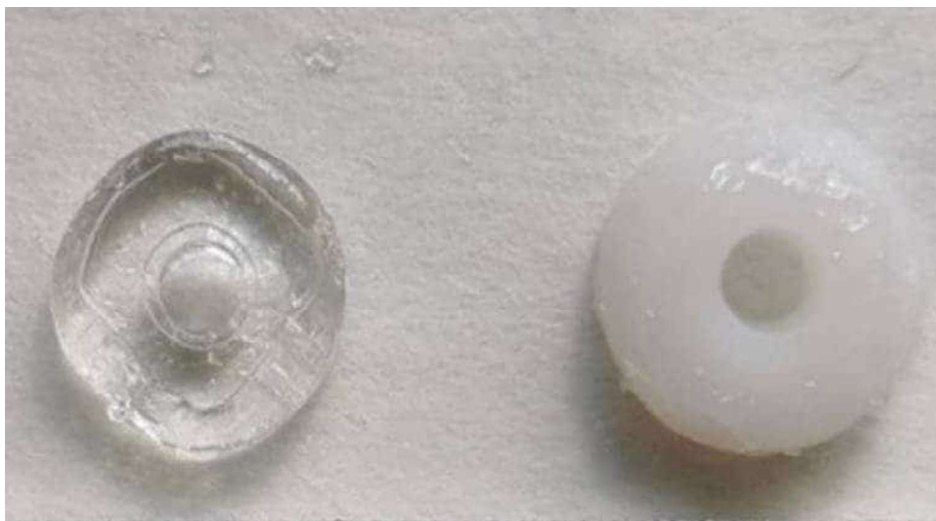
Overview

A study published by a research team from the University of California in the journal *Additive Manufacturing* states the possibility of 3D printing of drugs. The study shows that the special 3D printers used were able to produce certain types of drugs even in 7 seconds (and up to a maximum of 17). The first trial involved the production of paracetamol, one of the most commonly used drugs. Professor Abdul Basit (UCL School of Pharmacy) is the project manager and he also works with researchers from the Universidade de Santiago de Compostela and FabRx.

Lesson learned

Here are briefly presented words of Alvaro Goyanes, one of the authors of the research:

“3D printed personalized medicines are evolving at a rapid pace and they are reaching the clinic. To adapt to the hectic clinical environment, we developed a 3D printer that produces tablets in seconds. This technology could change the rules of the game for the pharmaceutical industry”.





Professionalization



TheraPick by Swisslog Healthcare

Overview

TheraPick is an intelligent packaging, storage and dispensing system designed for healthcare facilities. It uses a technology that optimizes the flow of medicines to perfection, from the healthcare staff to the patient's bed. TheraPick quickly and accurately packages single-dose medications. The blisters are packaged in the BUD format, while the other pharmaceutical forms are packaged in unit dose sachets. In this way, workflows are significantly improved, waste is reduced and more time can be dedicated to patient care.

Lesson learned

The perfect combination of automated storage and dispensing processes for medicines originally packaged in blisters makes the presented system interesting. TheraPick can also be installed in shared service centers and centralized warehouses for the management of single-dose drugs. In addition, the "PickRing" allows the drugs to be delivered to the patient on a single ring. The system ensures complete traceability, which translates into greater safety in the administration, reduction of waste and operating costs.



Conclusions



Giovanni Carrer
Project Leader
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The path undertaken by Palladio Group undoubtedly highlights a **progressive change of identity**.

The growth of the group, in fact, has always been centered on the company's ability to guarantee customers a prompt and effective response service, with a value and a benefit greater than those offered by competitors. In a constantly evolving social, technological and economic context, the ability to be resilient to change then becomes a skill that is not only useful, but necessary. For this reason, Palladio Group has decided to evolve towards a model that is not only 'of response', but rather '**of proposal**' with respect to the new needs of customers, by virtue of the evolutions of its context and of the final market.

The change in identity therefore leads to shifting the company focus towards **expanding the value proposition**, which must be supported by progressive evolution

of the corporate culture. The entry of new collaborators, as well as the creation of new places and processes dedicated to the development of innovation strategies and projects that look outside the company's core business, are essential components of the engine that will fuel this process of **strategic and operative change** in a long-term period.

This report is intended to be the first step in this path direction. The study of the possible evolutions of the pharmaceutical packaging sector and, in a much broader perspective, of the retail world linked to the pharmacy and the healthcare sector as a whole, has made it possible to evolve mentality and skills, orienting them towards the critical observation and interpretation of market signals, in order to identify future change trajectories, which will certainly have an impact on innovation activities and on the corporate strategic plan.

For this reason, we can identify the genesis of this report in the desire to understand weak signals, trends and scenarios in order to define and activate a set of conscious and structured activities that contribute, together with the company stakeholders, to building their own future and to guide change in the coming years.

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Unboxing the future of healthcare

A project by



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Spin off

Founded as a Spin-Off of the Ca' Foscari University of Venice, based in the Strategy Innovation Hub of San Giobbe, Strategy Innovation is a service company that deals with strategic consulting and works with both B2B and B2C companies.

Its clients include listed companies, highly technological companies, international groups but also small and medium-sized enterprises. It is a heterogeneous group of consultants made up of business consultants, designers, engineers, sociologists, psychologists and writers who allow it to operate in any sector and market.

In practice, Strategy Innovation supports companies to become innovation laboratories able to improve relationships with customers and suppliers, to conceive new products and services but above all to redefine internal processes with a view to continuous innovation.

In Synthesis, the goal of the research-intervention pursued by Strategy Innovation is the transformation of the business models of the companies with which it collaborates.

Unboxing the future of healthcare

Scenarios and trends of consumption

