

## **BEAUTY AND SUSTAINABILITY: CHALLENGES, OPPORTUNITIES AND NEW PROJECTS TO REDUCE THE IMPACT OF THE COSMETICS INDUSTRY ON THE ENVIRONMENT**

June 2023 - Sustainability is no longer a trend, but a value to be pursued at all costs. For years, the climate changes underway and the need to reduce the environmental impact of human activities to preserve the planet have guided government regulations and policies, as well as social movements all over the world.

All economic activities are involved in programs aiming at achieving climate neutrality with short-term objectives. Since 2015, the United Nations has launched the Sustainable Development Goals campaign, a "shared blueprint for peace and prosperity for people and the planet, now and into the future", with 17 pre-established and measurable objectives, some of which expire within 2030. The European Green Deal has set 2050 as the deadline for achieving climate neutrality on the European continent.

Even the cosmetics industry has to deal with sustainability, driven by a growing sensitivity on the part of consumers. According to the "Make Up The Future" report prepared by Quantis, a leading environmental sustainability consultancy, raw material extraction and processing processes (which impact 10% on total emissions of the sector), excessive use of plastic for packaging (20%), transport (10%) and the phase of use of the product (40%) are the main factors that determine the impact of beauty on the environmental balance. Forbes reports that the cosmetics industry generates up to 120 billion units of plastic packaging annually and contributes to the loss of 18 million acres of forest.

### **INGREDIENTS AND RAW MATERIALS: THE FIRST LINK IN THE SUPPLY CHAIN TO DETERMINE A SUSTAINABLE APPROACH**

All sectors of the cosmetics industry are requested to increase investments in research and development of new solutions for reducing the environmental impact, and the ingredients and raw materials sector certainly plays a strategic role.

During the 2023 edition of Cosmoprof Worldwide Bologna it emerged how the sector, which was the protagonist of a dedicated area within Cosmopack, is at the centre of a growing awareness of the issue of sustainability and in search of more effective definitions and regulations than trivial references to concepts such as "natural origin" typical of the so-called "green-washing". A round table hosted by **ECOVIA INTELLIGENCE**, entitled "[Green Ingredients for Sustainability](#)", underlined how the market is experiencing a huge transformation. The greater attention of the consumer to the subject, the complicated international scenarios with consequent difficulties in the supply of raw materials and the increase in energy costs due to the war in Ukraine, and a more and more dramatic impact of climate change are the factors that require the cosmetic industry to look for solutions to preserve biodiversity, with low energy consumption and with better waste management.

"It is necessary to solve the opposition between what we can still provide as natural ingredient on our side and the need to preserve biodiversity. As suppliers of ingredients to the industry we are called to identify alternative solutions, such as upcycling", said **Melanie Duprat, Sustainability Representative Active Beauty of Givaudan**, who participated as a speaker at the talk.

The environmental change called for by the market opens up new opportunities and development areas: new energy resources, the search for more effective active ingredients, waste management and their reuse are just a few topics on the agenda, but the first step is to establish standard criteria for evaluate the environmental footprint of a cosmetic product. "There is confusion on what natural means", highlighted **Viktorija Potko, Label and Events Officer of NATRUE**, during the round table held on March 16th. "According to recent research we have conducted, for many sustainability means using natural ingredients, for others the ban on animal testing, even if it is already banned in Europe. Consumers need to follow well-defined criteria when they buy a product. All information should be clear and transparent".

**Paolo Goi, Technical Director of Comfort Zone and Davines**, also highlighted the importance of the issue of transparency: "Today people want to know everything about how a company is making its products: where they buy the raw materials, what materials they use for the packaging and the impact generated by these choices. They have a more conscious approach to purchasing. As brands we need to promote people's interest in buying sustainable products and an essential point is linking the increase of sustainability with the increase in product performance".

**Michal Benmayor, Firmenich's Vice President and Global Sustainability Perfumery**, recalled during Cosmoprof how the company had already started their sustainable process in 1991. "Today the situation is very different: consumers are experiencing the effects of climate change, and they are conscious that they need to act. Companies are also embracing sustainability, and we support them in their transformation to deliver on their commitments through circular innovation and sustainable creations".

### **NEW SOLUTIONS FROM BIOTECH**

Biotech as a new frontier for supplying raw materials for the cosmetic industry was the subject of the round table entitled "[The Blue Biotech Wave: innovating for ocean preservation](#)", organized as part of the CosmoTalks calendar by **Melissa Hago, Vice President of Beauty & Wellness at the Trend Forecasting Agency Fashion Snoops**.

Biotech offers solutions to protect the planet's biodiversity, today enormously threatened by human activities, and primarily by the cosmetics industry. Extracting raw materials from vegetable sources is no longer sustainable for the balance of the planet. "Most of the plants we know today are disappearing", said **Robert Evans, Co-Founder and Chief Strategy & Business Office of the Purissima brand** during the talk. "Technology can scale and become more efficient and cost-effective for the production of very complex chemistry, everywhere in the world and leaving natural biodiversity alone. We can anticipate evolution taking notice from how plants in nature are responding to climate changes".

The opportunities offered by research are innumerable, and one of the most analysed sources, and still little exploited, is represented by the Oceans. "We only know 5% of the oceans resources", highlighted **Giovanni Scapagnini, MD, PhD and Full Professor of Clinical Nutrition of the Department of Medicine and Health Sciences of the University of Molise** during the round table. A small part of these resources is represented by algae and seaweed. "Seaweed is an incredible source of innovation and it has a strategic impact on the atmosphere. In addition, seaweed has properties and active ingredients that can have concrete applications for longevity and anti-ageing in areas such as health, cosmetics and nutritional market," explained Scapagnini.

Today, many brands are studying seaweed and algae by adopting their active ingredients for the development of anti-aging cosmetic products. PURISSIMA uses algae fermentation for its product line, as does **L:a Bruket**, a Swedish natural skincare brand. "We explored different kinds of algae. Working on natural ingredients puts pressure on the planet, but microalgae can provide alternative properties," explained **the co-founder of the brand, Mats Johansson**. "They grow with waste water from food production; after processing, the waste can become animal food. We only use shields, rich in active ingredients that defend the algae from climatic changes. It is a fully circular production".

Unfortunately, the development of research in biotechnology is today hampered by a lack of understanding on the part of the consumer. Since the concepts of "clean beauty" and "natural cosmetics" have been strengthened in recent years, the use of synthetic ingredients in cosmetics has been viewed with suspicion, and consumers are often victims of fake news that link biotechnologies to such as genetic manipulation. "Bio-Tech is an exciting staff for fashion or food, but in cosmetics storytelling towards consumers is key to have this innovation growing", highlighted to Cosmoprof **David Hjalmarsson, CEO and Founder of Tiny Associates**. "It is still very complicated to communicate to consumers. We have to let people understand that it is not about genetic manipulation, but just fermentation, which is a simple and traditional process and can only bring benefits in terms of more sustainable extracting processes".

"It is necessary to find concrete ways to explain why biotech can help to have more efficient ingredients and in a more sustainable way", echoed **Dania Blin, Sustainability Director of Biotherm**. "Beyond ingredients, biotech can be used for packaging, creating more performing and better quality recycled materials, for example, thanks to the use of specific enzymes, and bio-based staff which can be biodegradable for a fully sustainable life cycle". There is still a lot of research to be done, and greater synergy with other industries is also essential, but biotech can certainly become an indispensable element for sustainable evolution and environmental neutrality in the near future.

#### **PACKAGING AND SUSTAINABILITY: IS 100% CIRCULARITY ACHIEVABLE?**

Cosmetics packaging is one of the elements with the greatest environmental impact. The massive use of plastic and the growing amount of microplastics dispersed around the planet are driving governments to issue increasingly stringent regulations. However, reversing the course is not immediate: in cosmetics not all products to date can be recyclable, not all can be refillable, as highlighted at Cosmoprof Worldwide Bologna 2023 on the occasion of the CosmoTalks session organized by **QUANTIS** entitled "[Is 100 % circularity of cosmetics packaging achievable?](#)".

"Packaging plays a key role in sustainable impact of the cosmetics industry", highlighted **Emmanuel Hembert, Global Cosmetics & Personal Care Lead of Quantis** during the talk. "For consumers, packaging is highly visible, because they find traces of it on the street or along our beaches. That's why cosmetic packaging is a big topic. Brands are aware of this, and they have been working on packaging and sustainability for a long time."

Today the packaging industry is moving along three lines of development: recycling, refillable and how to remove waste.

Concerning recycling, the goal is to reduce the amount of virgin plastic introduced into the planet. "Circularity and recycling mean putting a material back into a production line. To date, most of the plastic recycled from cosmetics is reused in different fields, such as in the construction and furniture sectors. Cosmetic packaging should be more circular", explained **Carlo Andriolo, CEO of Aliplast S.p.A**. "Recycling should provide higher quality plastics which can be used for cosmetics following the required safety standards."

The transition to mono-material packaging is certainly important, because it introduces more easily manageable and recyclable packaging into the market. It is a step that also involved the designers, who had to introduce specific guidelines. "As a packaging company we are having to investigate and introduce new materials and designs which were not considered in the past," confirmed **Olaf Zahra, Chief Technical and Sustainability Officer of Toly Group** during the round table. Zahra also analysed the cost of products made with recycled materials. "They shouldn't cost more, because logically they use fewer resources. Today, however, we buy

recycled material at a higher price than virgin material, because the supply chain is not correctly balanced. It is an issue we should solve".

The sustainable evolution of the cosmetics industry is represented by the increase on the market of refillable packaging solutions versus single use packaging. The search for suitable materials and design solutions still offers big opportunities, and refillable packaging will certainly be a key element for future development. "Today there are already many refillable packaging solutions on the market. In reality, many barriers lie in the supply chain complexity, but the biggest challenge and at the same time, opportunity are represented by the relationship between brands retailers and consumers", underlined **Frederic Dreux, R&D Packaging Prestige Leader of Unilever Prestige**. "On the one hand, it is necessary to bring value to refill and justify the repurchasing of a product. Refilling must be easy, and fun and must reflect a new opportunity for extra connection with customers to share brand values. Even price strategy must take care of the benefits linked to sustainability: it is therefore necessary to invest in the premiumization of primary packaging, making it part of the beauty product experience".

Even **Eva Lagarde, CEO & founder of re-resources.co**, who moderated the round table during Cosmoprof Worldwide Bologna 2023, underlined the need for a new role for packaging within the entire supply chain: "Packaging should no longer be considered as a waste . There are several solutions to reduce waste: by removing layers, for example, or by making more compact packaging. But the first step must be redesigning packaging that goes beyond only containing a product. Cosmetic packaging must become something that the consumer wants to keep and reuse even for other purposes: a jewel, a piece of art".

## THE ROLE OF THE CONSUMER

The real protagonist in the sustainable evolution of the cosmetics industry is the consumer, who is the engine of all the processes that can facilitate change. However, some elements are fundamental: the sustainability of a product must become a positive and additional value; the solutions must be more accessible; awareness must increase as to why it is necessary to adopt recycled or refillable packaging; brands must communicate in a transparent way to win the trust of the consumers and give value to their choices.

The current technologies at our disposal can be a useful tool. More and more cosmetic companies are activating track & trace solutions. Traceability and transparency were the key themes of **CosmoFactory 2023 – Encoding Beauty**, too. QR codes and watermarks printed on primary packaging can collect information relating to supply for raw materials, manufacturing processes, environmental impact and correct waste disposal. The new digital technologies are also used in the supply chain, and allow for example to understand the composition of a packaging to better evaluate how to process it or analyse its quality.

The solutions available to the cosmetic industry to achieve climate neutrality are therefore already accessible, but it is a complex process: there is no single solution, but it will be the synergy between different methods to allow 100% circularity of a beauty product.

For further information and updates, please visit [www.cosmoprof.com](http://www.cosmoprof.com)

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