

Cassina LAB

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Analysis and research to design the future

Care for ourselves and our spaces

We are thinking about the future, to find conscious alternatives and develop products that promote both sustainability and well-being. Cassina LAB is a collaboration between the Cassina Research and Development Centre and Poli.design at the Milan Polytechnic born with the aim of improving the quality of life in the home.

A one-of-a-kind scientific research has been launched to fully evaluate Cassina's production, industrial and logistic system in order to map the principal areas where the company can carry out research and development, this includes sustainability, innovation, technology, comfort and experience.

The main objectives of the project are to identify innovative and sustainable materials to use in the creation of products, both new and existent, and to develop new projects capable of offering original functions that favour well-being.

The core principles of the research are founded on three levels, three pillars to start building our future, presented in a first selection of products for the 2020 Collection.

1. Sustainability

"Today sustainability is a fundamental topic, therefore we are working on innovation and the development of new solutions to be integrated into what has always been the philosophy of Cassina: the production of high quality, long-lasting products with a timeless design that, as a result, already constitute an important basis for sustainability."

Luca Fusco, CEO Cassina.

The premise is that the best sustainability arises from a project made to last a lifetime, a design that doesn't follow fashions or trends but that can be considered timeless, thus making it an integral part of a responsible consumption cycle.

Poli.design started the research with an in-depth analysis of Cassina's products to evaluate the materials, manufacturing processes and technologies used in order to better understand the status quo of the Cassina universe and define a starting point.

Cassina also carefully analysed its logistics, distribution and supply chain policies that contribute, together with the products, to a holistic approach to carbon print reduction.

To define a product sustainable, a simple principle should be applied: minim environmental impact + maximum performance. In addition, the sustainability of a product or material also goes hand in hand with its ability to perfectly fulfil the characteristics necessary for the product throughout its whole life cycle.

2. Research of new materials

"The material is what allows us to perceive an object through the senses giving physicality and form to a project. Every material has different intrinsic properties to evaluate: physical, mechanical, economic, environmental and emotional. These characteristics also define how it more or less adapts to different

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uses. Considering this, it is interesting to recall the Bauhaus school of thought whose aim was to create the best possible relationship between form and matter, form and function of the object, as well as form and production.

The combination of more intelligent materials allows better results to be achieved in terms of performance and use, while we are also aware that often the potential of these materials is only partly verified and still partly to be discovered.”

Prof. Davide Bruno, Scientific Director, Poli.design at the Milan Polytechnic

Innovation is key, especially in a historical moment like this when it is important to reconsider our relationship with the environment. Thanks to the study of the materials used today by Cassina, it was possible to analyse the functional and environmental performance of the products during their life cycle. The result was positive: high quality, durable products.

The next step was to research different materials, also used in other sectors, to find innovative solutions to be used in the furniture field. This exploration stimulated research and development that has already resulted in the use of some new materials in the 2020 Collection.

A 100% recycled fibre, made from PET mainly recovered from the sea, has been incorporated in the cushion padding of the *Sengu Sofa* by Patricia Urquiola, the *Duc-Duc* sofa by Mario Bellini and *Mex-Hi* sofa by Piero Lissoni.

The new *LC2* and *LC3 Fauteuil Grand Confort Durable* editions by Le Corbusier, Pierre Jeanneret and Charlotte Perriand have the same recycled fibre in the cushion padding as well as environmentally friendly polyols, deriving from bio renewable sources, integrated into the foamed elements, making them eco-friendly. These models, designed almost 100 years ago, have undergone a thorough analysis to be renewed in a new version that has a low environmental impact and high level of comfort: these icons in fact represent a new era of avant-gardism.

3. Well-being

Well-being is a factor that can enhance the value of a project, especially if it is generated by innovative and eco-compatible solutions that can guarantee new functions that optimize the concept of comfort and environmental quality.

In view of this, Cassina has carried out an in-depth study on the mattresses for the new bedroom collection, considering both ergonomics and materials, to accompany the culture of sleeping. A wide range of mattresses has therefore been introduced with natural or eco-friendly materials, deriving from bio-renewable sources, to ensure the maximum level of rest while considering their effect on the environment.

Poli.design carried out an analysis of the Cassina Collection considering the characteristics linked to the concept of comfort, evaluating the visual, vibrational, olfactory, tactile, psychological, physical, acoustic and thermal aspects. The first tangible intervention has been introduced in the bedroom, an area of the home where it is essential to rest, here the results of the research have been converted into real design interventions.

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Air purification

The air in the spaces where we live from day to day contains a large number of polluting substances and micro-particles. The best way to reduce the level of domestic pollution and breathe cleaner air in the home is to eliminate these elements that are also often allergens.

‘The Cassina Perspective at Night’, Cassina’s new collection for the sleeping area, proposes an air sanitisation mechanism that can be integrated in the fabric headboard of the *Bio-mbo* bed by Patricia Urquiola and in the fabric upholstered headboard cushions of the *Acute* bed by Rodolfo Dordoni. theBreath® purifying fabric is the first patented technology with zero emissions for air purification that works without energy sources. The fabric captures and disintegrates pollutants favouring the natural circulation of clean air to create a healthy and safe habitat.

Sound absorption

In addition to air purification, noise pollution was also an important topic to be examined for the new Cassina bedroom collection.

The definition of noise is any sound emission that causes qualitative deterioration of the environment. Noise can in fact create various problems, including: nightmares and anxious dreams, awakenings during the night, a temporal decrease of certain phases of sleep, sleep quality deprivation due to the change from deep to light sleep, sleepiness during the day.

A sound absorbing panel has therefore been integrated in the *Bio-mbo* headboard by Patricia Urquiola to respond to this problem and make the space around it more comfortable from an acoustic and, as a result, physiological point of view. This is made with Soundfil®, a hygienic, breathable and non-toxic sound-absorbing thermal insulator that contains and decreases the reverberation of sound frequencies, in particular in the area around the pillows and the upper part of the bed.

This project is the first step of a long journey for which Cassina is carrying out research to promote well-being and maintain a high level of environmental quality in the home.

For the future of Cassina and for the future of the home.