
From every angle.
Because this is our world.
BRACCO
LIFE FROM INSIDE

What mark will you leave?

We don't own the earth. We are simply guardians of it for the next generation. The children of today, and tomorrow, the people who we believe will make an even greater effort to transform the way we produce, transport, and consume energy.

We have the opportunity to make an indelible mark on the lives of our next generation. And, far less of one on the environment.

It's a philosophy that's not just part of our future. It's part of our present. And, deeply rooted in our past.

We're scientists at our core, but humans at our heart. And we need to ask ourselves, what world will we leave behind for them?

Our story of sustainability is driven by interrogating this question from every angle.

This is our story.

And yours.

Ours is a story 95 years in the making.

In 1927, we started a company with the purpose of doing things differently.

And so began Bracco's journey of developing solutions and innovations which have changed the history of diagnostic imaging.
Today, we operate in more than 100 countries and have six Research and Development centres around the world.

We are, and always have been, committed to viewing sustainability from every angle, across each link in our value chain, to ensure we have the full picture.

So, let's begin at home. Rather than building from scratch, we chose to renovate our historic headquarters in Milan, Italy.

The renovations were done using the most innovative, sustainable and energy-efficient technologies available, with the objective of minimising the impact on the surrounding environment.

So, from the moment you arrive, you'll be welcomed by an exterior that used materials in accordance with the CAM environmental criteria guidelines.

Every part of the design uses only renewable energy sources. Only groundwater is used for the production of hot and cold transfer fluids. Solar energy provides us with electricity. The air supply is optimised and modulated by sensors. And, only recovered rain water is used for toilet flushing and outdoor irrigation.

All of which puts the health and comfort of our employees and you, our visitor, first. We even went as far as creating green spaces, with bicycle parking areas, and charging stations for electric cars, to ensure a zero emissions workplace.

When you look at sustainability from every angle, easy is never an option. Which is why we've committed to expanding our company on brownfields. What this means is we will build on land that has been previously compromised by the presence of a hazardous substance, pollutant, or contaminant.

We will clean it. Decontaminate it. And ensure that this previously compromised piece of land becomes a safe and prosperous home for our employees.

Mission possible.

Our purpose.

We exist to improve people's lives by shaping the future of prevention and precision imaging.

Our mission.

We take pride in our commitment to patients, our history of innovation, team talent, and a sustainable approach to our entire value chain.

These are more than just words on a page. These are the principles that get us out of bed every morning. As a world-leader in diagnostic imaging, we spend every day seeking increasingly advanced and sustainable techniques and solutions.

But for us, it doesn't start with the science. It starts with the people. Our employees, our patients, the medical profession, and the communities in which we operate. Which is why we strive to provide excellence and safety in our products, but also why we believe in treating the planet with as much respect as we treat our patients.

Seeing the full picture.

Science, like art, is a complex combination of talent, tenacity, and exploration.

It is this curiosity and determination that drives our pursuit of sustainable solutions. Because, as we see it, we only have one chance to ensure that we treat our world with the same respect that we have treated our patients for over 95 years.

In the following chapters, we will be going into more detail about our continued efforts to promote sustainability throughout every part of our business. Simply because one view is never enough.

In the end, it's how you begin.

Research and Development.

Sustainability is ingrained in our DNA. It's purpose-built into the way we research, develop, and innovate our solutions.

Green Chemistry is our departure point. It's a process we embrace and it's based on 12 specific principles. These principles dictate that products, when used in the design, development, and implementation of chemical products and processes, enable scientists to protect and benefit the economy, people, and the planet.

More precisely, the application of the Green Chemistry principles is designed to prevent waste generation, eliminate the use or generation of hazardous substances, and promote the use of benign solvents. Importantly, it also seeks to promote the energy efficient use, where possible, of renewable feedstocks.

Ultimately, the goal of Green Chemistry is to allow for chemistry to perform in a cleaner, safer, and more sustainable way.

So, let's go back to the beginning of our story. Before Green Chemistry was written about in1998, Bracco's researchers designed and developed the current synthesis of Iomeprol, a process which fulfils several of the 12 principals of Green Chemistry.

Iomeprol eliminated some toxic reagents and solvents before this became known as the third principal of Green Chemistry. We also used water and alcohols as benign solvents which, today, meets the criteria of the fifth principle. Bracco also reduced waste and energy consumption long before it became the first and sixth principle of Green Chemistry.

At Bracco, we see our story as being a bit ahead of its time. We call it foresight.

did you know?

Bracco developed the synthesis of Iomeprol before Green Chemistry was introduced in 1998.

This proprietary process meets the first, third, fifth and sixth principle of Green Chemistry.

We don't believe waste products should go to waste.

Chemical Manufacturing.

One of our approaches to sustainability is to look at our manufacturing processes from every angle. To ensure that we have the full picture. In this way, we can find new ways to make sure that the by-products of our manufacturing, that would otherwise be wasted, are not wasted.

Our approach reflects that of the circular economy. The circular economy is the concept of a society that reduces its burden on nature by ensuring that resources remain in use for as long as possible. Once the maximum value of a product has been exhausted, it is then recovered, reused, and recycled.

With this in mind, we'd like to talk about Bracco's Iodine recovery programme. Iodine is one of our most important raw materials. It's also a part of our sustainability programmes. To meet seemingly conflicting challenges, we have developed a new process in which we recover this essential and valuable raw material and, in addition, significantly reduce any residual volumes from the production process.

Bracco also engineered an Iodine recovery system that collects the wastewater from the production process. This waste is then put through a filtering membrane that separates the residual molecules of Iodine from the wastewater flow. In its simplest form, we are then able to recover and reuse this Iodine.

But we're not done yet. We are advancing this process so that we can surpass our current annual recovery rate of between 87% and, in some instances, over 90%.

Solvent Recovery is another focus area of ours. The proof lies in Bracco's Ceriano Laghetto and Torviscosa plants where we manufacture the active ingredients for X-ray and MRI contrast media. The recovery percentage of organic solvents at these plants is currently 93%. We expect this percentage to rise even further through the development of new internal processes and the application of the best technologies available to us.

Last, but not least, is Bracco's wastewater treatment.

Bracco is driven to recover Iodine and solvents in ways that support the principles of the circular economy. To this end, our reverse-osmosis technology provides protection against potential environmental contamination.

Simply because waste products should never go to waste.

did you know?

Bracco has engineered a system that allows for the recovery and reuse of Iodine.

***We are advancing this process to surpass our current recovery rate of between* 87% and 90%.**

***The recovery percentage of organic solvents at our plants is* 93%.**

Reuse. Recycle. Reimagine.

API Transportation.

Let's begin with our approach to delivering our products to the people who need them the most. To limit our carbon footprint as much as possible, if a market or region has manufacturing capabilities, we transport API rather than the finished product.

API is transported in aluminium drums. Importantly, they are very effective in ensuring the integrity of the product. Equally importantly, they can be reused.

So, once the delivery is completed, we arrange for the empty drums to be returned, evaluated, and reused.

A simple case of an empty vessel that makes a strong statement about sustainability.

did you know?

We reuse the aluminium drums used to transport API.

We put the best in to get the most out.

Pharmaceutical Manufacturing.

Quality has been the cornerstone of Bracco's business philosophy for over 95 years. And, our pharmaceutical manufacturing process is no exception.

We use only the highest quality chemical components, together with Bracco's decades-long expertise, to ensure the efficacy, integrity, and safety of the diagnostic imaging solutions we produce.

This reflects our commitment to patients and the medical community at large, as well as the commitment we have to people and the planet. This has led us to pursue the world's highest standards of quality and efficiency.

Bracco's Imaging plant in Colleretto Giacosa and SPIN plant in Torviscosa both achieved an ISO 50001accreditation. This accolade recognises the ability to conserve resources through efficient energy management.

The Ceriano Laghetto, Torviscosa, Colleretto Giacosa, and ACIST Europe Heerlen plants, in turn, have all achieved an ISO14001 accreditation. ISO 14001 recognises these plant's ability to manage their environmental responsibilities in a way that contributes to the environmental pillar of sustainability. But we haven't stopped there. The EZEM Montreal, Bracco Suisse Geneve, and Bipso Singen plants are all in the process of receiving their ISO certifications.

We often talk about approaching sustainability from every angle. This includes addressing the well-being of our people. That's why Bracco actively pursued, and received, the Occupational Health and Safety ISO 45001 accreditation. This reinforces our belief in providing safe and healthy workplaces that prevent work-related injuries and ill health.

The belief Bracco has in pursuing sustainability at the highest level also allows us to get more out of it. Like wastewater and Iodine recovery.

BIPSO sets a new standard in sterile contrast medium production by using Bracco's reverse osmosis technology to reduce the entry of contrast medium trace substances into our sewage system by 97%. This is a reduction of 15 to 16 tons per year. BIPSO approaches sustainability in two ways. Apart from vastly improving waste water treatment, we contribute to the security of raw materials by recovering and reusing Iodine.

did you know?

Bracco's pharmaceutical manufacturing plants are ISO 50001, ISO 14001, and ISO 45001 accredited.

Our reverse osmosis technology reduces the entry of contrast medium trace substances into our sewage system by 97%.

This is a reduction of 15 to 16 tons per year.

The power of perspective.

Primary Packaging.

In our business, we are governed by both primary and secondary packaging regulations.

Primary packaging is the packaging that actually makes contact with the product, while secondary packaging has no direct contact with the product. Regulations for primary packaging are stringent. Regulations for secondary packaging, on the other hand, provide us with more opportunities to be sustainable, which we are actively exploring.

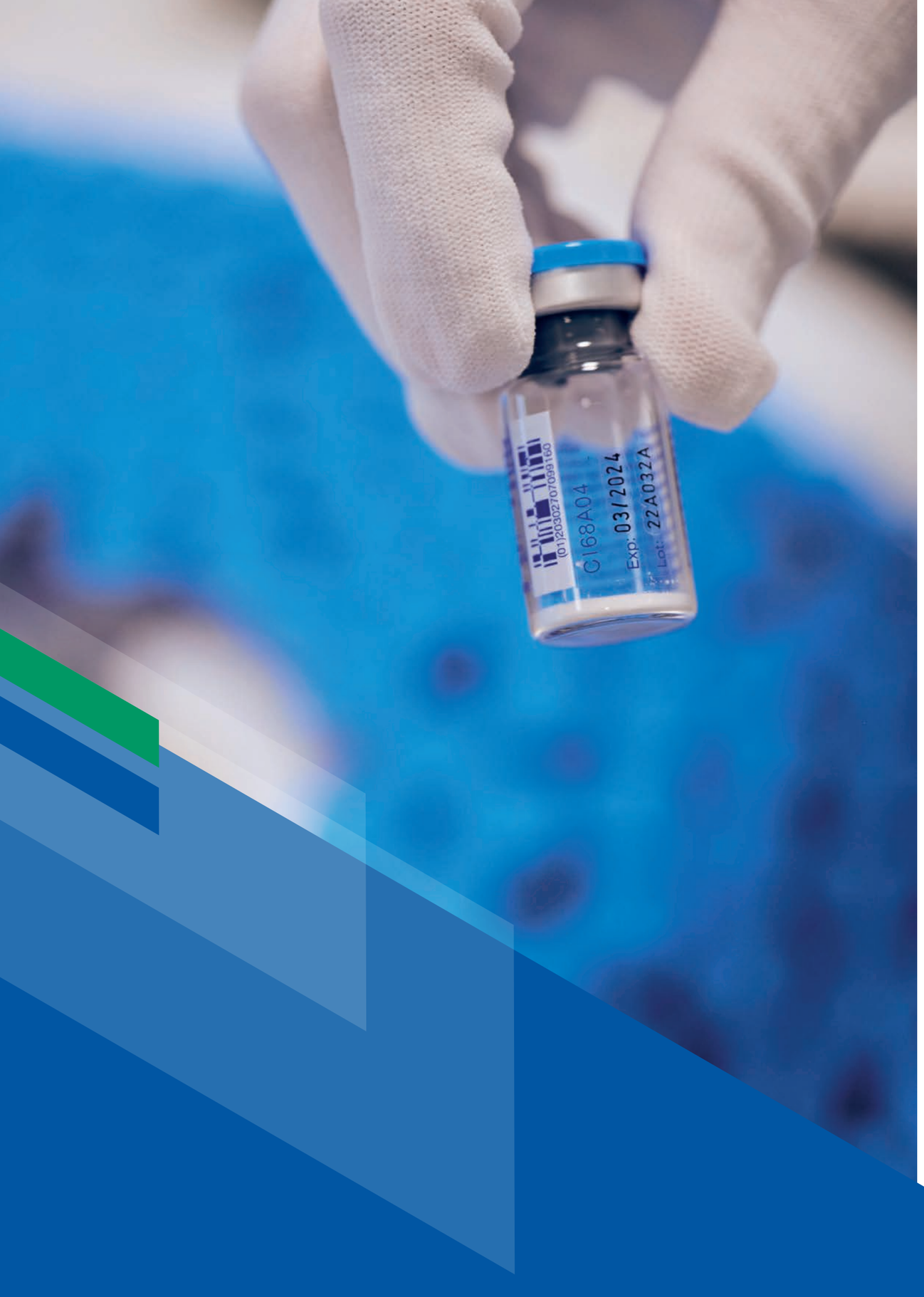
Bracco uses high quality glass for its primary packaging. This is to protect the integrity of our product, to protect our patients, and to provide the best diagnostic results possible. As part of our commitment to sustainability, Bracco devotes extensive resources towards research aimed at developing innovative and sustainable packaging solutions of the highest quality standard. We do this because we understand that we should never make decisions based on a partial picture, but rather on a complete perspective.

That's why we are engaged with independent consultancies to get an objective evaluation of the full life cycle of our materials, from production all the way through to the energy that would be required to recycle them.

We believe that it's only though this kind of collaboration, and transparency, that we can all see our way to a sustainable future.

did YOU know?

Bracco is actively engaged with independent consultancies to evaluate the full life cycle of our materials.



How do we get our products to people, without harming the very world they live in?

Secondary and Tertiary Packaging.

In the past, Bracco used heavy cardboard boxes to protect products from damage and humidity. It seemed like a really good idea at the time.

The only problem was that these boxes could not be recycled. So, we did what we always try and do. Find a better way. Today, after significant changes to our logistics, we don't use any cardboard, we don't need as much handling, and there's a significant reduction in weight.

But we didn't stop there. We saw secondary packaging as an area to further drive sustainability. Of course, every project we undertake begins with a pilot project to ensure that the quality of our product is never compromised.

Actually, some of Bracco's products are packaged in virgin plastic. So, we invested a lot of effort in finding ways to change that. Through a recent pilot project, we tested packaging using bio-based and recycled PET. PET, in particular, is very easy to recycle and, unlike other plastics, it can be recycled for the same function.

It's always been important for us make a difference to our patients' lives. Now we are also able to leave far less of an imprint on our environment.

did you know?

Bracco no longer uses heavy cardboard boxes that could not be recycled.

Our secondary packaging requires less handling, and weighs far less.

Rather than using virgin plastic, Bracco is testing the use of bio-based and recycled plastic.

How we get there is as important as where we're going.

Logistics.

The journeys our products take are designed to change lives. Our world-leading diagnostic solutions have been helping doctors and nurses make life-saving diagnoses for over 45 years.

Today, the logistics involved in getting our products into the right hands faces two major challenges. The first one is ensuring the integrity of the product itself. The second one is finding ways to reduce the environmental impact of our supply chain.

This meant that we had to look at things differently. To find new and better ways to care for our patients, and our planet. And, in so doing, accelerate our sustainability initiatives. The answer lay in using the age-old method of rail rather than ocean transport via the Trans-Asia railway from Italy to China.

In partnership with the BDP, a leading provider of global supply chain solutions, Bracco has successfully completed this first-of-its-kind temperature-controlled transportation. The result? A 40% reduction in carbon emissions.

The process involved designing two refrigerated forty-foot reefer containers that bridged a more sustainable route with innovative new technologies. These included utilising IoT sensors within the containers to measure temperature, humidity and light levels, product movement traceability, as well as real-time quality updates to ensure impeccable product integrity while in transit.

Proof that when you look at the full picture, you can change the world for the better.

did you know?

By using rail rather than ocean transport, Bracco reduced carbon emissions by

40%

Less is more.

Application.

As part of our ongoing commitment to sustainability throughout our value chain, we've taken a close look at how we can optimise our diagnostic images by using less of our product.

This has led to a collaboration between Bracco's Medical Imaging and the Italian Diagnostics Center. The objective is to develop better AI-based algorithms capable of improving the contrast of MRI and CT images with lower dosages of contrast media. This exciting development has several positive effects on waste, energy, and water.

Challenging the status quo is never an easy thing to. However, we understand that syringes have environmental, social, and economic consequences. We also know that our patients' health is at the core of everything we stand for.

Balancing our patients' best interests with the need for greater sustainability, Bracco has moved towards having some of our products being administered without the need for syringes. And, without compromise. It's another example of how looking at things differently, allows you to see the full picture of sustainability.

did you know?

AI-based algorithms will allow us to optimise diagnostic images while reducing the dosages of our contrast media.

Bracco's innovative syringeless applications reduce the waste caused by single-use syringes.

We're working as hard to recover contrast media as we do to manufacture it.

Waste Recovery.

We know how critical Bracco's Iodinated Contrast Media (ICM) is in enabling an accurate diagnosis for our patients.
We also know that the increased use of ICM globally has meant that more of it can be found in waterways around the world.

This is a critical issue. That's why Bracco are working so hard to ensure that any otherwise wasted Iodine, solvents and water are recovered through every part of our manufacturing processes.

We also believe in looking at this issue from every angle to find a better solution.
With this in mind, we are actively pursuing ways to recover ICM beyond our manufacturing processes.

The use of the same reverse osmosis technology we employ in our manufacturing processes has proven to be very successful in this regard.

We are also working on product recollection in our markets in France.

did you know?

Bracco is using reverse osmosis technology to recover ICM both within, and beyond our manufacturing processes.

This is just the beginning.

We have come full circle. We've looked at Bracco's sustainability initiatives throughout our value chain. Whether it's renovating our headquarters or choosing to build on brownfields. Pre-empting several of the 12 principals of Green Chemistry or using reverse osmosis technology to recover and reuse Iodine.

We've spoken about how Bracco continually scrutinises its packaging, transportation, and product innovations to ensure that we are building towards a more sustainable future.

This process has made us realise just how connected we all are. And how important it is to engage and partner with other parties to evaluate the full life cycle of all our materials.

Sustainability affects every facet of who we are.
Our people, our economy, and our environment. It affects every decision we make, and that's why we believe that our world and our patients are too important to make decisions based on a partial picture.

Bracco sustainability fast facts.

General	• *We believe in treating the planet with as much respect as we have treated our patients for over 95 years.* • *Bracco is committed to viewing sustainability from every angle, across every link in our value chain, to ensure we have the full picture.* • *Sustainability is purpose-built into the way we research, develop, and innovate our solutions.*
Property	• *Bracco is committed to expanding our company on brownfields.* • *Bracco's headquarters in Milan were renovated using the most sustainable and energy-efficient technologies available to create a zero emissions workplace.*
Research and Development	• *Bracco developed the synthesis of Iomeprol before Green Chemistry was introduced in 1998.* • *This proprietary process meets the first, third, fifth and sixth principle of Green Chemistry.*
Chemical Manufacturing	• *Bracco has engineered a system that allows for the recovery and reuse of Iodine.* • *We are advancing this process to surpass our current recovery rate of between 87% and 90%.* • *The recovery percentage of organic solvents at our plants is 93%.*
API Transportation	• *We reuse the aluminium drums used to transport API.*
Pharmaceutical Manufacturing	• *Bracco's pharmaceutical manufacturing plants are ISO 50001, ISO 14001, and ISO 45001 accredited.* • *Our reverse osmosis technology reduces the entry of contrast medium trace substances into our sewage system by 97%.* • *This is a reduction of 15 to 16 tons per year.*
Primary Packaging	• *Bracco is actively engaged with independent consultancies to evaluate the full life cycle of our materials.*
Secondary and Tertiary Packaging	• *Bracco no longer uses heavy cardboard boxes that could not be recycled.* • *Our secondary packaging requires less handling, and weighs far less.* • *Rather than using virgin plastic, Bracco is testing the use of bio-based and recycled plastic.*
Logistics	• *By using rail rather than ocean transport, Bracco reduced carbon emissions by 40%*
Application	• *Bracco's innovative syringeless applications reduce the waste caused by single-use syringes.* • *AI-based algorithms will allow us to optimise diagnostic images while reducing the dosages of our contrast media.*
Waste Recovery	• *Bracco is using reverse osmosis technology to recover ICM both within, and beyond our manufacturing processes.*

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