

Corporate Brochure 2023







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## **IBA** World leader



We are a world leader in particle accelerator technology. We design, produce and market innovative solutions for the diagnosis and treatment of cancer and other serious illnesses, and for industrial applications such as the sterilization of medical devices.

Around the world, thousands of hospitals use particle accelerators and dosimetry equipment designed, produced, maintained and upgraded by IBA, making our mission to protect, enhance and save lives true. Our life-driven mission and the open relationships we have built with our customers and partners over time, together with our innovative mindset and our willingness to always strive for technological and scientific progress, make IBA a unique scientific company. We are characterized by a deep human connection that is illustrated by: Life, Science.

Through our four core activities: Industrial Solutions, RadioPharma Solutions, Proton Therapy and Dosimetry, we offer health care professionals the solutions that allow them to take a fully integrated approach to their patient care.

## How do we work?

At IBA, we believe business has the mission to be a force for good, through creating shared and long-term value for all stakeholders.

Our company is a Certified B Corporation (B Corp)™.



#### **Our customers** and their patients:

we develop the most effective technology for our customers so they can provide the best available diagnosis and treatment for their patients.

#### Our employees:

we offer them quality jobs in a stimulating, friendly environment guided by ethical values.

#### Our society:

we promote a sustainable entre-preneurial business model that serves society while respecting our products and operations. the limits of our planet.

#### Our planet:

we continually work to reduce the environmental impact of

#### Our shareholders:

we show that we are worthy of their trust by being a sound financial investment and acting in accordance with our values.

## Why do we do it?

### TO PROTECT, ENHANCE AND SAVE LIVES

For over thirty years, IBA has placed the purpose of the company and its project at the heart of its activities, as expressed in our mission to "Protect, Enhance and Save Lives".

All our activities are targeted towards the same objective of making a positive impact on people's health by providing health care professionals with the most effective and accurate solutions for diagnosis and treatment, as well as safe solutions for sterilization. This goal is implemented in different ways that benefit each of the different stakeholders involved.

### A FLEXIBLE AND RESILIENT BUSINESS MODEL

In today's global and increasingly volatile economy, we have demonstrated flexibility, adaptability and resilience.

These are fundamental to the continued success of our business activities.

We continue to focus on quality and innovation and, thanks to excellent sales in our businesses (Proton Therapy, Dosimetry, Industrial Solutions and RadioPharma Solutions), we are managing an increasingly larger installed base and are, as a result, focusing more on service and upgrades.

## **OUR** values



We care about the well-being of our clients and patients, our employees, our society, our planet and our shareholders.



Creativity, innovation and passion are mandatory for a company that continually stretches the frontiers of technology. Day after day, we dare to create better results.



We share our ideas and expertise with our stakeholders to create better results.



We implement our mission to protect, enhance and save lives through ethical standards and transparency to remain worthy of our stakeholders' trust.

## **IBA IN 2022** at a glance



12% of turnover invested in R&D



5 continents 73 PT centers sold

55 proton therapy service contracts



patients treated on IBA PT equipment



650+ accelerators sold \_\_\_\_\_\_ L\_\_\_\_\_\_\_ 1 017

employees

6.1 EUR Million Net Profit



60 nationalities

42% proton therapy market share

## **MESSAGE** from Olivier Legrain

IBA has closed a successful year, driven by a significant increase in sales in all of its divisions. Our order book and backlog reached record levels in 2022. With a strong order book, good revenue visibility, and a high cash position, we are confident in the company's prospects for 2023 and beyond. IBA retains its worldwide position as leader of the proton therapy market, and 2022 was a strong year for all of our markets, including a significant growth in sales of our Industrial Solutions division, as well as good performance of our Dosimetry and RadioPharma Solutions divisions.

We have invested in our infrastructure, research, and development to strengthen our position as a leader in the various markets in which IBA operates and the proton therapy market has experienced strong growth in Europe and the United States. A highlight during the year was marked by an agreement with the Spanish Ministry of Health for the purchase of 10 proton therapy systems, the largest order ever received by IBA from a single customer.

Over the past year, we have focused our efforts on ensuring the sustainability of the company. We have continued to invest in low-carbon and low-waste equipment and products. Through various initiatives, we have also strengthened our commitment to providing a fair, diverse, inclusive, and environmentally respectful workplace. The company has improved its CDP score to B- and, according to an external audit, its B Corp score is now estimated at over 97. In 2022, investments were made, among other things, in eco-design and life cycle assessment, green mobility, solar energy, and carbon offsetting. Finally, for the first time, one-third of the variable pay of the company's executives will be based this year on sustainability improvement, estimated based on B Corp criteria.

For the coming year, we expect to continue to have strong order intake in all our activities. Services will continue to provide stable recurring revenues, while the company's strong balance sheet and excellent cash position will enable us to seize growth opportunities that may arise.

Despite the current geopolitical situation and economic uncertainties, we have a clear visibility on our future performance, and we are confident in our ability to grow in the years to come and create value for all our stakeholders.

Assuming a stabilization of global supply chain challenges, a return of inflation to around 3%, as access conditions to certain regions normalize, and based on the prospect of maintaining a high level of order intake, we have issued medium term guidance. Subject to these factors, we expect an average annual revenue growth rate of around 15% between 2022 and 2026, nearly doubling them over the next four years. We project a recurring earnings before interest and taxes (REBIT) equivalent to about 10% of total sales by 2026, progressively delivered and weighted after 2024, as current macroeconomic effects fade and operational leverage accelerates with volume. Finally, we expect capital expenditures (CAPEX) of EUR 10 to 12 million per year until 2026 to support infrastructure development, innovation, sustainability, and digitization, to maintain IBA's cutting-edge offer and foster its future growth.

Following the results of the 2022 fiscal year, the Board of Directors intends to recommend to the Annual General Meeting the payment of a gross dividend of EUR 0.21 per share in 2023. This represents a 10% increase compared to the previous year. If approved, the annual bonus paid to employees will be established at the same level as the dividend, in accordance with the company's initiative to share the value created with all its stakeholders.

Olivier Legrain Chief Executive Officer

IBA is a leader in particle accelerator technology. Our purpose, which inspires and motivates our staff, is clear: to protect, improve and save more lives, every day, while creating value for all our stakeholders.

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## PATIENT CARE what makes our heart beat

By providing innovative and high-quality solutions, IBA aims to support patients throughout their journey. As such, our mission to protect, enhance and save lives takes them from diagnosis with radiopharmaceuticals to treatment by particle beam therapy, and includes sterilization of medical equipment for safer operations and quality control of equipment.

## 01 Sterilization

Industrial Solutions mainly focuses on developing solutions for applications such as medical device sterilization. Its innovative E-beam and X-Ray solutions enable the medical industry to be significantly more environment-friendly by avoiding toxic chemicals and radioactive materials, and their associated waste and hazards.

## 02 Diagnosis

RadioPharma Solutions develops products that are used for producing isotopes and radiopharmaceuticals, vital for use in cancer diagnosis, as well as in the cardiology and neurology fields. We assist hospitals and radiopharmaceutical product distribution centers by helping them design, build and operate their radiopharmacy units.

## 03 Treatment

IBA is the worldwide technology leader in the field of proton therapy. Proton Therapy is considered to be one of the most advanced forms of radiotherapy in cancer treatments using ionizing rays. Thanks to the unique properties of protons, tumors can be targeted more accurately. In effect, protons deposit the majority of their energy in a controlled zone, limiting exposure of the surrounding healthy tissues to potentially harmful radiation.

## 04 Quality assurance

The Dosimetry business offers hospitals a comprehensive range of Quality Assurance tools and software, for example, for the calibration and control of their radiotherapy and radiology equipment. This technology is crucial to ensure that the prescribed dose is delivered within a precisely defined area of the patient's body. Precision and control are vital to patient safety and proper dose administration.









## 1 | Industrial Solutions



## Protect, enhance and save lives by contributing to more sustainable ionization solutions for medical device sterilization.

IBA is the world leader in electron-based irradiation solutions for industrial applications. E-beam and X-ray irradiation can be used in a wide range of applications, such as food ionization or polymer cross-linking. However, IBA is more than ever focused on the medical device sterilization market. Today, this market is at a very favorable turning point, mainly due to an increasing scrutiny and scarcity of the two dominant technologies: Gamma and ethylene oxide.

After a slower 2020 due to COVID, which caused logistical issues and a decrease in volumes of regular health care and surgery, the volumes of devices to be sterilized is now rebounding fast and adding to new products needed for the research and production of vaccines, such as bio-reactors. These events led to an increased pressure on the sterilization market in terms of lead-time and costs at the end of 2021. This tense situation persisted in 2022 and was confirmed by a very strong demand for integrated E-beam and X-ray irradiation solutions. It is foreseen to continue until 2025 and beyond.

To capture this growing market, IBA has developed a new portfolio of services and end-to-end solutions powered by the iconic Rhodotron<sup>®</sup>. These solutions allow in-house customers or contract sterilizers to sterilize medical devices either by E-beam in boxes or X-ray in pallets, or both. they also offer an environmentally friendly and readily available alternative to toxic chemicals such as ethylene oxide and nuclear materials such as cobalt 60.

As the medical device sterilization market is now on a favorable and sustainable track, IBA is leveraging its unique technology to restart the stimulation and exploration of other historical applications, such as food irradiation and environmental applications. To address this market from a new angle, IBA is offering a more complete product offering, coupled with new financing options. In addition, IBA's teams enabled the first worldwide production of radioisotopes with a high energy Rhodotron<sup>®</sup>, the TT300-HE.



## MAKING MORE ECORESPONSIBLE SOLUTIONS: A DAILY MISSION

The Rhodotron<sup>®</sup> electric accelerator is the most environmentally friendly option as it avoids the use of toxic chemicals and radioactive materials, as well as the pollution and hazards associated with them. And yet, IBA's ambition is to go even further.

We are now deploying more resources and investigating further to ensure that the entire solution offered is part of a more ecoresponsible approach.

Coupled with the latest technologies in terms of green energy production, increased efficiency of the ionization process, recovery of fatal calories, co-generation, numerical modelling, digitalization, and product handling developed for the logistics industry, irradiation can be further optimized to reduce the total ecological footprint of the sterilization industry compared to other established technologies. Thanks to collaborations with major players such as Engie-Tractebel, IBA is demonstrating that X-ray will be an increasingly sustainable process in the future.



### A NEW EXPERIENCE, A JOURNEY TOGETHER, A RELATIONSHIP FOR LIFE: BEYOND™

Initially focused on the development of performant electron accelerators, IBA is now focusing on developing a wide range of services and products to serve the irradiation industry. Along with the iconic Rhodotron<sup>®</sup>, prospects and customers are now supported from their first idea to the operation of an efficient, profitable and sustainable ionization facility. This customer experience is named BEYOND<sup>™</sup>.

In the BEYOND<sup>TM</sup> experience, customers can rely on digital tools to model and optimize their product design, their future process, and model their center's performance from day one. As an example, IBA and TRAD, a French company specialized in radiation modelling, are collaborating to bring numerical simulation to a wide range of medical device manufacturers and service centers. This type of tools can potentially save months of product testing and tons of  $CO_2$  during production. Customers can also test their products while being trained at our partner site Aerial in Strasbourg, France, which is equipped with a Rhodotron<sup>®</sup> and all ionization modalities. In addition, all prospects and customers are welcome to experience and be trained on irradiation in our new academy and user experience center, the INDUX, based in Louvain-la-Neuve, Belgium.

To continue raising the bar, in 2022, IBA increased the span of services it offers for an even more integrated irradiation facility. Prospects can now start their projects with a detailed preengineering, opt for a customized service for production ramp-up and training, and even choose financing and leasing options.

### BEYOND<sup>™</sup>, FOUR END-TO-END SOLUTIONS THAT REFLECT CUSTOMERS' AMBITION

Solutions powered by the iconic Rhodotron<sup>®</sup>.

#### **BE EFFICIENT**

The solution that takes advantage of the Rhodotron<sup>®</sup> power and high-end conveying solutions to treat large volumes with the highest efficiency.

#### BE SOFT

The ideal solution to process fragile and high-value products that require being handled with care.

#### **BE-WIDE**

The unique solution to irradiate pallets with X-rays with the guarantee of reaching an optimal Dose Uniformity Ratio.

#### **BE-FLEX**

The solution for multi-purpose centers that provides the advantage of having a unique Rhodotron® to produce either E-beam or X-rays, with different energies in one or several treatment rooms.





## **INDUX CENTER – PRACTICE MAKES PERFECT**

The INDUX center of excellence is a key element in the continuous support we provide to our customers. At any stage of their journey, the center welcomes trainees to offer them an immersive experience in a real industry environment. More than one hundred customers have already benefited from training at INDUX, allowing them to be comfortable with their equipment and optimize their center's uptime. In 2023, the INDUX center offering will be expanded with the creation of a second center in the United States, which will focus on accelerating the training of local field service engineers, as well as existing customers and prospects.







Watch the video: Rigging of the Rhodotron® high-energy.



Discover what the INDUX Center can offer you!

### X-RAY IRRADIATION IS RECOGNIZED AS THE SAFEST TECHNOLOGY TO HANDLE THE GROWTH OF THE MEDICAL DEVICE INDUSTRY

The medical devices industry has a wide range of products that enable patient diagnosis and treatment. Within this large multisegment industry, Disposal Medical Devices (DMD) include all single-use devices e.g., surgical gloves, dialysis tubes, diabetes patches, orthopedic implants, syringes, etc.

In addition to these products and volumes, which grow organically with the population, the COVID-19 pandemic accelerated the growth of new industries related to cell therapies, as well as vaccine research and production: the so-called bio-processing business. With the reopening of regular care, these volumes are adding to requirements for significant sterilization capacities from 2022. Interestingly, the bio-processor volumes are observed to keep growing despite the reduction of the pressure of COVID-19.

Today, Disposal Medical Devices and Bio-Processor sterilization has a year-on-year growth of 7 to 10% and relies for ~85% of its volume on two modalities: ethylene oxide [Et0] [~50%] and Gamma [~35%]. Gamma is under supply pressure due to the closure of several nuclear reactors all around the world, resulting in a significant shortage and a strong increase in lead times and prices. Ethylene oxide is adversely affected by toxicity issues and several site closures due to the detection of residues.

These issues have led to a bottleneck in the sterilization market, and have resulted in significant pressure on the supply chain of medical manufacturers. Electron beam and X-ray irradiation offer competitive alternatives to EtO and Gamma irradiation. Both techniques are electricity based and do not present major regulation issues.



## THE RISE OF X-RAY

Since the 1990s, IBA has been the pioneer of X-ray irradiation and until 2020, only one reference site in Switzerland was operational around the world. Due to the events mentioned above, X-ray technology is now seeing a faster acceptance and utilization in all regions of the world. A second industrial site was commissioned in the Netherlands in 2021, and more than 10 new sites will be available to customers from 2022-2023. X-ray is recognized by major sterilizers and manufacturers as the safest technology to handle the volume growth, both for businesses and for patients.

Thanks to its ambitious R&D program, which was started in 2010, the Rhodotron<sup>®</sup> based X-ray solutions are recognized as the most high-performing and sustainable product in the field. An IBA X-ray facility can treat up to 100,000 pallets and run 24/7 with a limited number of operators and only a few days of servicing per year. Through strong digitalization and sustainability programs, this performance will continue to advance and lead the market in the coming years.

In this context, 2022 was another year of strong demand for X-ray, and IBA announced the signature of two fully integrated X-ray projects. These projects include the Rhodotron<sup>®</sup>, a new technology of robust and efficient overhead conveyors, the Process Control System, ERP connection, and dosimetry, as well as, for one of the two projects, a fully automated warehouse for more than 1,000 pallets. In parallel, a third X-ray center was commissioned and delivered in Asia as planned.

### AN EVEN FASTER GROWTH IN AMERICA AND ASIA

Until recently, reference sites for X-ray and electron beam industrial sterilization were mostly concentrated in central Europe. Today, IBA Industrial sees a strong deployment of the technology in all regions of the world, with remarkable activity in the United States, Southeast Asia, and China. The Company is currently deploying a stronger regionalization plan in those areas where it is already present, including adding resources for installations and services, hubs for parts logistics, and 3rd party suppliers. As announced above, a new training team and US INDUX center are being deployed in the US. Local account management and local conveyor manufacturers are other examples of the fast regionalization of our business. Very soon, customers around the world will enjoy the same BEYOND<sup>™</sup> experience and journey wherever they are located, and will be able to interact with experts of their language and culture.

We are really proud of what IBA has done for us and what was achieved during COVID and that was pretty special... The installation of this site was done seamlessly and completed in due time. The site was full in 6 months, so successful that there is another center being built next door.

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**Mr. Mike Eaton** CEO of Steris EMEA & APAC

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## 2 | RadioPharma Solutions



## Protect, enhance and save lives by contributing to MORE ACCURATE DIAGNOSIS

IBA leverages its extensive knowledge to assist hospitals and radiopharmaceutical distribution centers in two primary ways: by helping them produce radioisotopes in-house and by offering end-to-end solutions that cover everything from project design to facility operation.

Its product range includes advanced production equipments like cyclotron solutions, targetry systems, synthesizers, control systems, and more. Moreover, IBA has gained considerable expertise in establishing cGMP radiopharmaceutical production centers.

### EARLY DETECTION SUBSTANTIALLY INCREASES THE CHANCES OF SURVIVAL

3 million undiagnosed cases of childhood cancer.

A modeling study published in The Lancet Oncology<sup>1</sup> projected cancer incidence for 200 countries worldwide and suggested that the number of undiagnosed cases of childhood cancer could account for more than half of the total in Africa, south-central Asia and the islands of the Pacific. In North America and Europe, by contrast, only 3% of cases are undiagnosed. If there is no improvement, the authors of the study estimated that more than 3 million new cases of childhood cancer would be missed between 2015 and 2030.

 Zachary J Ward, MPH, Jennifer M Yeh, PhD, Nickhill Bhakta, MD, A Lindsay Frazier, MD, Prof Rifat Atun, FRCP, Estimating the total incidence of global childhood cancer: a simulation-based analysis. 26 February 2019. https://www. thelancet.com/journals/lanonc/article/PIISI470-2045[18]30909-4/fulltext



#### **IMPROVED DIAGNOSIS ACCESS**

**World Health Organization**<sup>1</sup> (WHO) figures from 2022 indicate that 10 million people die from cancer each year, and yet patients' lives and chances of survival are significantly improved if the cancer is detected early. In fact, a cancer diagnosed at an earlier stage is more likely to be treated successfully, resulting in a higher likelihood of survival, reduction of morbidity and lower cost of care. Cancer Research UK<sup>2</sup> confirmed that the average cancer survival rate for the 8 most common cancers amongst patients with stage 1 cancer is 90%. However, the survival rate plummets to just 5% when the patient is diagnosed as having stage 4 cancer.

In light of these findings, and in keeping with its mission to protect, enhance and save lives, IBA is committed to making cancer diagnosis more accessible around the world by working on several levels:

- By reducing the size of the radiopharmacy where the radiopharmaceutical tracers for cancer diagnosis are produced. The IntegraLab®ONE solution is the most compact radiopharmacy solution on the market, facilitating installation and reducing the building cost.
- 2. By increasing the cyclotron production capacity for the production of isotopes in the radioactive tracers, IBA's Cyclone®KIUBE cyclotron offers the highest production capacity enabling increased diagnostic capabilities.
- 3. By offering adjustable production solutions, the Cyclone® KIUBE produces the widest range of radioisotopes, enabling it to produce fluorodeoxyglucose (FDG, the most commonly used radiopharmaceutical for cancer diagnosis), Gallium-68 for the diagnosis of neuroendocrine tumors, and Copper-64 for a more accurate diagnosis of prostate cancer.



Watch the video: IBA Cyclone®Key - F-18 access granted!



Cyclone®KEY

Cyclone<sup>®</sup>KEY is giving the opportunity to anyone, anywhere in the word to get access to PET cyclotron technology and PET imaging. It's also very interesting for inhouse production because the local hospital will not depend on the big suppliers of radio-pharmaceuticals.

**Muhammed Sarfaraz Mirza** Business Line Manager, Attieh Medico – Saudi Arabia

2. https://www.cancerresearchuk.org/about-cancer/cancer-symptoms/why-is-early-diagnosis-important

<sup>1.</sup> https://gco.iarc.fr/today/data/factsheets/cancers/39-All-cancers-fact-sheet.pdf

The IBA Cyclone<sup>®</sup>KEY cyclotron plays an important role in making Positron Emission Tomography (PET) imaging more widely available worldwide by enabling the production of key medical isotopes used for this imaging technology.

PET imaging is a highly effective medical imaging technique that uses radiotracers to produce detailed images of organs and tissues in the body. It is used in the diagnosis and treatment of a wide range of medical conditions, including cancer, neurological disorders, and cardiovascular disease.

However, the use of PET imaging is limited by the availability of radiotracers, which require the production of medical isotopes. The IBA Cyclone®KEY cyclotron addresses this issue by providing a compact and efficient system for the production of FDG, commonly used in PET imaging.

The Cyclone®KEY's compact size and advanced automation features make it ideal for small to medium-sized radiopharmacies and research institutions, which can use the system to produce their own radiotracers locally. This reduces the need for long-distance transportation of radiotracers, which can be expensive and time-consuming, and enables PET imaging to be more widely available in remote areas or regions where access to radiopharmaceuticals may be limited.

Overall, the IBA Cyclone®KEY cyclotron helps make PET imaging more widely available worldwide by facilitating local production of medical isotopes and reducing the logistical challenges associated with the transportation of radiotracers. This can help improve patient care by allowing more patients to have access to the benefits of PET imaging.

## **Cardiology Diagnostic**

### A PREFERRED MODALITY FOR CARDIAC IMAGING

In cardiology, a Positron Emission Tomography (PET) scan of the heart is a non-invasive nuclear imaging test using radioactive tracers. It is used to diagnose coronary artery disease and damage following a heart attack. PET scans are also used to define the best therapy treatment.

Major technological breakthroughs were achieved in the diagnosis of coronary heart disease through PET. IBA's 70MeV cyclotron enables the production of Rubidium-82, while the Cyclone®KIUBE produces 13N-Ammonia — both are used for non-invasive myocardial perfusion tests.



Cyclone®KEY

Cardiac PET imaging can be very useful for the management of many patients with suspected or known heart disease. Cardiac PET imaging is increasingly used as new centers are established and clinical guidelines incorporate cardiac PET imaging into the management algorithms.

#### **Terrence D. Ruddy**

MD, FRCPC, FACC, FAHA, FCCS Professor of Medicine and Radiology, University of Ottawa, Director of Nuclear Cardiology, University of Ottawa Heart Institute

### A COMBINATION OF DIAGNOSIS AND THERAPY: THERANOSTICS

Radiotheranostics is a type of cancer treatment that combines diagnostic imaging with targeted radiation therapy. It involves the use of radiopharmaceuticals, which are compounds that contain both a radioactive isotope and a targeting molecule. These radiopharmaceuticals are injected into the patient's bloodstream and travel to cancer cells, where they can be detected using imaging techniques such as PET or SPECT. Once the cancer cells have been identified, the same radiopharmaceutical can be used to deliver a targeted dose of radiation to the cancer cells, killing them while sparing healthy tissues.

Radiotheranostics is a promising approach to cancer care because it allows for the personalized treatment of individual patients based on the specific characteristics of their cancer cells. This means that patients may experience fewer side effects and better treatment outcomes compared to traditional cancer treatments. Additionally, radiotheranostics can be used to treat a wide range of cancers, including neuroendocrine tumors, prostate cancer, and certain types of breast cancer.

Overall, radiotheranostics represents a promising avenue for cancer care that is gaining increasing attention from health

## **Cyclone®IKON**

### NEW THERANOSTIC RADIOPHARMACEUTICALS PRODUCTION SOLUTIONS

In 2021, IBA introduced its new high energy and high-capacity cyclotron, the Cyclone®IKON, which offers the largest energy spectrum for PET and SPECT isotopes from 13 MeV to 30 MeV.

Currently, there are still a large number of patients for whom cancer treatment fails, despite major scientific advances. Nuclear medicine is emerging as a relevant modality to address this gap by extending overall survival and quality of life for cancer patients. Theranostics and targeted therapies allow the administration of radiation directly to the targeted cells, with minimal toxic side effects to surrounding healthy cells, unlike traditional modalities. The growing number of clinical trials (200+) and ongoing increase of new radiotherapeutic molecule developments support the great potential of radioligand therapy.

To enable this revolution, we must enhance the availability of novel isotopes and boost their production capacity. The cyclotron must play its part as a reliable and sustainable production source of isotopes for the radiopharmaceutical industry. This is particularly the case for Germanium-68 [used for Germanium-68/ Gallium-68 generators], lodine-123 and other radioisotopes such as Copper-64, for which the demand has been consistently expanding year after year. care professionals and researchers alike. As more research is conducted in this area, it is expected that radiotheranostics will continue to play an important role in the fight against cancer.



This theranostic principle has acquired greater importance in personalized medicine in recent years, particularly in oncology, where advanced tumors can potentially be treated effectively with low side effects.





Watch the video: IBA new Cyclone®IKON.



## PANTERA

## A BETTER FIGHT FOR LIFE

PanTera is a joint-venture created by IBA and the Belgian Nuclear Research Centre SCK CEN, focusing on the development and commercialization of radiopharmaceuticals for cancer diagnosis and therapy. One of its key areas of research is the use of actinium-225, a radioactive isotope that has shown promise in the treatment of several types of cancer. Actinium-225 emits alpha particles, which are highly effective at killing cancer cells while sparing healthy tissues. PanTera is working on developing actinium-225-based radiopharmaceuticals to treat a variety of cancers, including prostate cancer and multiple myeloma.

PanTera's use of actinium-225 is part of its broader mission to bring innovative and effective cancer treatments to patients around the world. By leveraging the expertise of IBA and SCK CEN in radiopharmaceutical development and nuclear medicine. The joint-venture is well positioned to develop innovative therapies that can enhance cancer patients' quality of life.

Capitalizing on the Rhodotron<sup>®</sup> facility and other advanced technologies, Pantera will develop and manufacture cuttingedge radiopharmaceuticals, including those based on actinium-225, for the diagnosis and treatment of cancer. PanTera's work has the potential to revolutionize cancer care by providing more personalized treatment options and improving treatment outcomes.



Actinium-225 offers great promise for the treatment of a large variety of cancers, but only very little of the material is available worldwide today. Once cancer treatments based on actinium-225 receive approval, Pantera will focus on enabling access to a dependable supply of this promising isotope.

#### Bruno Scutnaire,

President of IBA RadioPharma Solutions and Chairman of the Board of Directors of PanTera

Launching Pantera was a natural choice for SCK CEN and IBA, allowing the joint-venture to leverage the innovative capabilities of both organizations, whilst relying on the speed of an autonomous start-up, which is necessary in this fast-evolving field.

Peter Baeten, Deputy Director General of SCK CEN and Board member of PanTera



### IBA SUPPORTS THE ONCIDIUM FOUNDATION

The Oncidium Foundation is a non-profit organization that strives to connect patients, practitioners and experts in the field of nuclear medicine by improving access to cancer treatments based on radiotheranostic treatments. The Oncidium Foundation is a pioneer in this patient-centered science, supporting the advancement of availability of radiotherapeutic technologies.

More information on Oncidium:



## 3 | Proton Therapy



## Protect, enhance and save lives by contributing to **MORE TARGETED TREATMENTS**

Proton therapy is one of the most advanced forms of radiation therapy and a valuable treatment modality for thousands of women, men and children who are diagnosed with cancer.

Proton therapy aims to destroy cancer cells by delivering proton beams to a target tumor. Protons release the maximum energy within the tumor target area while limiting the radiation to the surrounding



Watch the story of Juliann.



healthy tissues. This is not the case for photon radiotherapy, the most common type of radiation currently used in cancer therapy.

Moreover, proton therapy can potentially improve local control through dose escalation while limiting side effects and long-term complications. As a consequence, this may enhance the outcome of the treatment and patients' quality of life<sup>1</sup>.

## 300,000 patients

## 300,000 patients treated with PT worldwide at the end of 2022

Hi, my name is Juliann and I am 9 years old. A year ago, I was diagnosed with the recurrence of a rare tumor of the spinal cord in my lower back, which could not be operated on due to the high risk of neurological consequences. My doctor then suggested treating me with proton therapy, as it would better preserve the good tissue around the tumors, which radiotherapy would not have done. I did 30 sessions during 6 weeks in Leuven. At my last session, the 30th, I rang a bell. The proton therapy made my tumors shrink and I have been walking better ever since. From the bottom of my heart, I thank this huge machine and the whole team that took such good care of me.

> **Juliann,** 9 year old patient

One of the initiatives IBA Proton Therapy is currently supporting is the "PROTECTTrial". The PROTECT Trial is a large-scale, multi-institutional, randomized controlled clinical trial in conjunction with 19 industry and academic partners. The consortium conducts trials in esophageal cancer with the aim of improving access to proton therapy for patients, whilst validating a model-based approach for the use of proton therapy treatment in cancer more broadly. The research project comprises 12 proton therapy centers across eight countries and is coordinated by Professor Cai Grau from Aarhus University in Denmark. IBA offers its expertise in proton therapy solutions, with six centers using IBA technology involved in the trial. A total of approximately 400 patients are expected to be included in the randomized trial with study completion planned for 2027.

It is hoped that the trial will produce high-quality data, which will contribute towards the creation of European guidelines on the use of proton therapy for esophageal cancer.

More information: https://protecttrial.eu/

1. Makbule Tambas et al, Radiotherapy and Oncology https://doi.org/10.1016/j.radonc.2020.07.056 2. Source: PTCOG

## IBA is the world leader in proton therapy

IBA is the world leader in proton therapy with IBA customers having treated more than half of all the proton therapy patients treated on commercial systems.

The company has been a leader in proton therapy development for the last 30 years and has built the largest user community worldwide. IBA offers maximum uptime rates and can install a system in less than 12 months.

#### Market share in rooms [end 2022]



## IBA PROTON THERAPY CENTERS AT END OF 2022 – LARGEST NETWORK & EXPERIENCE

IBA continued to strengthen its market leadership in 2022. A highly significant milestone for the Proton Therapy team was the 10-system agreement signed with the Spanish Ministry of Health. This commitment reflects IBA's status as a market leader, and the growing understanding of the technology in the European market. Elsewhere, IBA won a Proteus®ONE contract in Italy, another one in Russia, and two in the United States. IBA also received the first order from CGNNT for a three-room Proteus®PLUS system as part of the partnership announced in 2020. We're delighted to be able to offer proton therapy - one of the most innovative radiation treatments modalities - to our patients. Lynn Cancer Institute now provides the latest generation proton therapy delivery platform by leading provider, IBA, and advanced cancer care easily accessible to patients living in the Boca Raton community.

> **Dr. Michael Kasper** Radiation Oncologist Lynn Cancer Institute, Florida, USA

## **33** Proteus®PLUS Centers

## 40 Proteus®One Centers





Discover the New Mexico Cancer Center on our YouTube channel by scanning the QR code.

Proteus®ONE and Proteus®PLUS are brand names of Proteus 235.

## Campus • your proton therapy community

## Campus, the most knowledgeable proton therapy community

### WHAT IS CAMPUS?

At IBA, we have been fully committed to Proton Therapy for more than 30 years. The Company has come a long way to get where it is today: at the top of the proton therapy market.

Yet, IBA could never have achieved this on our own. Everything it has accomplished is the result of the strong relationships it has built with its unique community. Because turning the world into one that is cancer-free requires a great deal of collaboration, knowledge sharing and joint research.

Campus aims to bring this collaboration to the next level. It's a place where experts, academia, researchers and entrepreneurs from all over the world have the opportunity to share knowledge with each other, and find the information they need at every stage of their proton therapy journey.

Campus is a tangible community, which meets and interacts in real life. The Campus platform is also a single repository centralizing a large amount of accumulated knowledge and expertise.

The campus community is built on 3 pillars:

- . Learn to Expand your skills
- . Share by Collaborating with your peers
- . Excel to Maximize your center's performance

### **CAMPUS COMMUNITY**

Whether you are a newcomer willing to accelerate your learning curve, an experienced user looking to develop new expertise, or the most eminent expert keen on sharing your knowledge or expanding your research, **Campus is your network** to reach and remain at the leading edge of proton therapy and provide the best care to your patients.



Join the CAMPUS community now: campus-iba.com

A real partnership every step of the way. We are not only a provider, we are a partner.

> Marc Van Den Burght, Chief Operation Officer



## Proteus: connecting Life & Science

### UNRIVALLED EXPERTISE

IBA has demonstrated its technological leadership in the development of tools, techniques and product features in proton therapy. Understanding the challenges of clinical treatment, IBA designed the system and features to optimize the overall treatment quality of each specific proton therapy case. With IBA technology, users will have the flexibility to customize treatment plans and maximize the clinical benefits of proton therapy.

### **DESIGNED BY USERS, FOR USERS**

Proteus® has been inspired by everyday clinical practice. Through day-to-day interactions with the community, IBA is perfectly positioned to understand, and invest in, users' needs. These investments are directly translated into benefits for patients. The Proteus® design enhances the patient experience by fostering a soothing environment while making the medical staff's daily practice safe and easier.

> Our team is constantly striving to provide the latest and most innovative tools and resources, and we hope through this research to learn more about how this technology may help provide treatment more quickly and effectively.

James M. Metz, MD, Henry K. Pancoast Professor of Radiation Oncology and Chair of the Department of Radiation Oncology at the Perelman School of Medicine at the University of Pennsylvania.



FLASH is a key research area that may dramatically improve the clinical relevance of proton therapy for patients around the world. IBA is uniquely positioned to drive the development of FLASH irradiation<sup>2-3</sup>, the next major innovation expected in radiation therapy.

IBA is investing heavily in developing a novel technique using the Bragg peak called ConformalFLASH<sup>®</sup>. IBA's strategy to take FLASH today from research to a clinical version of ConformalFLASH<sup>®</sup> will take into consideration the radiobiology, clinical safety, and future streamlined workflow for FLASH.

ConformalFLASH® means:

- . It combines the benefit of FLASH with the benefit of the proton Bragg peak.
- Dose delivery in 1-2 beams, no need for multi-field delivery, dose-splitting and potentially losing the FLASH effect.
- . Improved conformality due to reduced entrance and exit dose.
- 3-4x more patients in ConformalFLASH<sup>®</sup> than shoot-through FLASH, through more eligible indications like abdominal cancers<sup>4</sup>.

As the industry leader, IBA is collaborating with several leading proton therapy centers in their pioneering research work to better understand the mechanisms of FLASH irradiation. In 2022, IBA extended its reach and partnerships, signing research agreements with the University Medical Center Groningen in the Netherlands and with the Fred Hutch Cancer Center in Seattle, US.



Proteus® PLUS

 ConformalFLAsH® is a registered brand of IBA's Proton FLASH irradiation solution currently under research and development phase.
Diffenderfer E. et Al.; The Current State of Pre-Clinical Proton FLASH Radiation and Future Directions; Medical Physics; 2021
Bourhis J. et Al.; Clinical translation of FLASH radiotherapy, Why and how?, Radiotherapy and Oncology; 2019
Source: Internal IBA Models



IBA is developing a novel proton therapy delivery technique called DynamicARC<sup>®</sup>. This technique allows dynamic spot-scanning irradiation and energy switching while the gantry is rotating. It offers the advantages of Pencil Beam Scanning (PBS), the advanced characteristic of the Bragg peak with no exit dose, and the conformal delivery.

Proton arc therapy has the possibility to further improve the quality of treatment. This technological evolution will offer patients numerous advantages:

- . Potentially enhanced dose conformity at the tumor level and a potential reduction of the total dose received by the patient<sup>2</sup>.
- Simplified treatment planning and delivery without performing multiple field adjustments.
- Less time in the treatment room and a maximized patient throughput thanks to an optimized workflow<sup>3</sup>.

Today, the IBA Proteus<sup>®</sup> system is the only PT system meeting all the needs in terms of beam characteristics for DynamicARC®: fast energy-layer switching time, intrinsic small beam, fast scanning, and the ability to modulate dose rate within a layer.



Proteus®0NE



Watch the video: Shaping the future of proton therapy.



Motion management tools are needed to ensure accurate treatment delivery by managing the challenges caused by tumor motion. With motion management, a proton therapy clinic will be able to treat more patients with more confidence.

Due to the proximity to critical structures and surrounding healthy tissues, managing tumor motion with radiation therapy is critical. Breath hold, gating, or other motion-mitigation techniques or intrafractional tracking may be necessary when delivering proton therapy.

It is estimated that around 20% of patients who are indicated for radiation treatment can benefit from proton therapy<sup>4</sup>. In 25% of these eligible patients, tumor motion can occur during treatment delivery. This is the reason why IBA is dedicated to offering an integrated solution for motion management that meets the medical needs.

#### SUPPORT & SERVICES

With the largest proton therapy installed base, IBA has built a strong and reliable service team to guarantee the availability of its proton therapy technology and consistently achieve system uptime. IBA provides support teams, parts, and processes to provide full system operation and maintenance services while guaranteeing the highest performance standards on our state-of-the-art technology.

At IBA, we know that in order to start, maintain and grow a proton therapy center, cancer centers need an experienced partner who is there for them every step of the way. Our services provide the necessary expertise, confidence, training and support to make sure your proton therapy center is successful from the very beginning.

DynamicARC® is a registered brand of IBA's Proton ARC irradiation solution currently under development phase.
Ding et al, International Journal of Radiation Oncology Biology Physics 2016 (http://dx.doi.org/10.1016/j.ijrobp.2016.08.049)

<sup>3</sup> Data on file

<sup>4.</sup> Extrapolation with Globocan worldwide cancer incidence applied to the Dutch Model.

## 4 | Dosimetry



## Protect, enhance and save lives by enabling INDEPENDENT QUALITY ASSURANCE

The priority of IBA in its dosimetry activity is to ensure that patients receive a safe, accurate and reliable diagnosis and treatment.

In medical imaging and radiotherapy, radiation must be used with great caution and precision.

The prescribed dose (expressed in Gray [Gy]) must be rigorously respected, both in terms of intensity and location. Patient lives, their safety and the success of their treatment depend upon it.

In medical imaging, the objective is to reduce patient exposure to radiation, while maintaining good image quality.

In radiotherapy and proton therapy, the goal is to expose tumors with millimeter precision to a high dose of rays, while reducing the exposure to healthy tissue as much as possible. In each case, the accuracy of the equipment and the control of the dose are of paramount importance. To achieve this, dosimetry instruments and software are needed to calibrate and control the diagnostic and therapeutic equipment.

This is the responsibility of IBA's Dosimetry business, which has developed a range of tools to calibrate radiation equipment and verify the dose of ionizing radiation that the patient absorbs during medical imaging and radiotherapy.

In 2022, IBA acquired Modus Device Inc. This integration places IBA at the forefront of the next revolution in precision radiation delivery with groundbreaking MR image guidance and motion management capabilities.







myQA® SRS



Modus QA - QUASAR™ MRgRT Insight Phantom

myQA® PROactive is an innovative tool for prospective risk analysis tailored to the needs of radiation oncology. It offers a formalized approach to risk assessment following best practice methodology. The software includes flowcharts and FMEA, and the integrated fault tree analysis identifies measures to block multiple error pathways, further increasing patient safety.

Prof. Dr. rer. nat. Christoph Bert Head of Medical Physics, Erlangen University Hospital, Germany



Watch the video.



### SAFE MEDICAL IMAGING: QUALITY ASSURANCE FOR A BETTER DIAGNOSIS

IBA quality assurance solutions for medical imaging systems such as X-ray or CT (Computed Tomography) contribute to improving image quality. This ensures a more accurate diagnosis and therapy, while also controlling the radiation dose released by the machine. Our dosimetry solutions offer a complete and instant analysis of the released dose to complete the required test efficiency and with the highest precision.

### SAFE RADIOTHERAPY: QUALITY ASSURANCE OF EQUIPMENT FOR THE TREATMENT OF PATIENTS AND INDEPENDENT VERIFICATION OF THE TREATMENT PLAN

It is vital that a series of quality control checks are made on the calibration of the equipment and the plan calculation to ensure patient safety. These controls are designed to certify that the radiotherapy and proton therapy equipment will deliver the required dose in the exact location designated by the medical team. It also increases physicians' peace of mind about their patients' safety.

### SAFE HEALTH CARE PROCESSES: DISCOVER RISKS, IDENTIFY CORRECTIVE SAFETY MEASURES AND PREVENT ACCIDENTS

Every clinic, regardless of its size, resources, and experience, can benefit from prospective risk management. myQA<sup>®</sup> PROactive enables departments to maximize safety and optimize their QA program with their available resources.





myQA® Phoenix

#### PATIENT SAFETY DRIVEN BY ADVANCED CUSTOMER TRAINING AND SUPPORT

For IBA, service and support are about how we care for our customers and their performance.

With over 45 years of dosimetry experience, and through its training offerings, IBA helps its customers run their equipment efficiently and safely, thereby ensuring patient safety in medical imaging and radiotherapy. Our qualified dosimetry service teams – uniquely distributed over 3 continents – ensure 24/7 instant access and quality support to our customers.

Discover Dosimetry's innovative and independent QA solutions.



## LEADING INNOVATIONS IN QUALITY ASSURANCE

Through cutting-edge innovations, IBA has a long history of advancing Quality Assurance in radiation therapy, proton therapy and medical imaging. As we continue on this path, we believe that three drivers are essential to further innovate QA:

- . Meaningful Innovation
- . Flexible Solutions
- . Customer-first Service



# Protect, enhance and save lives by being **A COMMITTED COMPANY**



We are proud of this recognition, which is the culmination of a long process that involved all aspects of the company. However, certification is not an end in itself. It is only the starting point of a new approach which was already present in our culture but which will now take on a whole new dimension. With the assessment that led to our B Corp certification, we have identified the points that we can work to improve upon. This is just the beginning.

> Olivier Legrain CEO of IBA



## B CORP AS A TOOL TO OPERATIONALIZE OUR STAKEHOLDER APPROACH

- Assess: 360° thinking to identify our strengths and improvement opportunities in 5 impact areas, based on a recognized and evolving standard
- . **Compare:** a community of 6,500+ companies worldwide, to benchmark our performance and share best practices
- . Improve: a framework to set milestones on our sustainability journey
- . Advocate: an inspiration for others, a contribution to the advancement of sustainability standards

IBA's consideration of its stakeholders lies at the heart of its entrepreneurial ethos. For, just as we are committed to our customers, patients, and shareholders, we realize that a commitment to our people, to society and to the planet is key to maintaining the quality of life of both present and future generations. Nothing less than our societal and environmental legitimacy as a company is at stake.

#### **BUSINESS AS A FORCE FOR GOOD**

As expressed by our Stakeholder Approach, we at IBA believe in a business model that is a force for good, creating shared and long-term value for all stakeholders. Beyond words, we have decided to make this a key part of our operations by becoming certified as a B Corporation (or B Corp). The B Corp framework is a holistic tool to assess, benchmark and ultimately improve our sustainability journey. And being a certified B Corp provides what is often lacking elsewhere: proof.

In doing so, IBA joins a B Corp community of more than 6,500 businesses globally, that promotes strong values of change, making companies "a force for good" and highlighting those that reconcile profit with societal purpose. The B Corps are part of a movement to transform businesses to contribute to a more sustainable and inclusive economy and society. We also firmly believe that being a business that is a force for good is the best business choice to attract and retain talent, stay ahead of upcoming risks, and improve the current product catalog while exploring new and growing markets.





"

## STRATEGIC AXES OF OUR SUSTAINABLE DEVELOPMENT PROGRAM

Inspired by our findings during the B Corp certification process, we mapped our strengths and weaknesses as a company. From there, we identified four strategic streams to work on during the next two years. As a company, we acknowledge our strengths as well as our improvement areas. Working on our weaknesses gives even more meaning to our global activities.

> **Thomas Canon** IBA Sustainability Program Director

LOW CARBON, LOW WASTE PRODUCTS	Understand / reduce the $\rm CO_2$ and waste impact of our products across their lifecycles and value chains
LOW CARBON LOW WASTE COMPANY	Monitor IBA Group carbon footprint, make it neutral by 2030 (reduce and offset) Monitor IBA Group waste footprint, reduce unsorted waste by 2/3 by 2025
DIVERSE, EQUITABLE AND INCLUSIVE WORKPLACE	Pro-actively incorporate diversity, equality and inclusion into our business as a major contributor to belonging
COMPANY ACCOUNTABLE TO SUSTAINABILITY	Enhance policies and practices pertaining to our mission, accountability and transparency Build sustainable supply chains, by screening the societal and environmental impact of suppliers
#### **COMMITTED TO OUR EMPLOYEES**

As Yves Jongen, IBA's founder, always reminds us, our people are IBA's most valuable asset. After all, would our mission statement to protect, enhance and save lives still make sense if it isn't put into practice for and by our employees?

As a responsible employer, we want to provide our employees with safe and efficient working conditions and a friendly environment conducive to their professional and personal development.

#### AT OUR BEST

Peak performance is achieved when we are at our best. A complete set of new tools and practices is in place since 2020, covering the areas of Performance Management (Working Collaboratively), Engagement Monitoring (Constant Dialogue), Learning [Develop knowledge and skills] and Compensation (Sharing value created).

Protecting lives is an everyday commitment at IBA and it applies first to ourselves and the people we are working with and for. ...

... I am convinced that in future, talented individuals will list sustainable development as an essential criterion in their choice of employer.

> Olivier Legrain Chief Executive Officer



One of the ideas behind this change is that before we evaluated people and granted them a bonus on the basis of objectives they achieved. Now, we have changed the mindset and we award the bonus because we trust they are engaged and will fulfill the tasks, projects, and objectives that are required on a daily basis - and these objectives might be reviewed more often.

> Soumya Chandramouli Chief Financial Officer

#### **OFFERING FLEXIBLE BENEFITS**

We believe in flexibility. In selected countries, the new MyChoice plan is designed to better align the individual value of a salary benefit with the individual needs of IBA employees. Each employee can, within set limits, use his or her «à la carte budget» to receive benefits such as complementary health insurance, multimedia, education or mobility means.

#### **SHARING PROFITS**

In 2021, a new compensation system was put in place, in line with our stakeholder approach: while the base salary rewards competence, a profit-sharing plan assigned to each employee matches the dividend paid to shareholders. This aligns shareholders and employees' interests with a proper balance between short-term performance and long-term goals in support of the realization of IBA's strategic commitment to its multi-stakeholder approach.

> I am really grateful for the welcome you all have given me at IBA, and for this collaboration which is for my part positive and fulfilling. Thanks for the trust you have placed in me.

> > Passwerk Consultant

# 60 nationalities within IBA Group

### PROMOTING A DIVERSE, EQUITABLE AND INCLUSIVE WORKPLACE

Diversity is fundamental to our culture. As an equal opportunity employer, we value the uniqueness of individuals and the different perspectives and talents they bring to IBA. We learn from and respect the cultures in which we work, promote diversity within our workforce, and have an inclusive environment that helps each and every one of us to fully contribute to IBA's success.



International Women's Day at IBA Dosimetry

IBA is committed to providing equal employment and training opportunities, and to treating applicants and employees without discrimination. We do not discriminate based on race, color, age, sex, sexual orientation, national origin, religion, language, or disabilities. Our policy is that no one at IBA should ever be subject to any kind of discrimination, and we have designated individuals responsible for diversity, equality and inclusion. Through a partnership such Passwerk, we leverage opportunities to make our company more inclusive.



Discover the IBA Beam Factory.

The IBA production area.

## COMMITTED TO HEALTH, WELLNESS AND SAFETY

Respect for universal human rights is at the core of IBA's business.

IBA is committed to providing a positive, productive, and safe work environment with freedom of association, good ergonomics and great employee facilities. We promote the prevention of involuntary labor and human trafficking, as well as the prevention of underage labor and burnout, in a work environment that is free from violence, threats, harassment, intimidation, mental or physical coercion, and other disruptive behavior.

We do not permit any form of violence, whether physical, verbal, or mental. We consider all threats of violence as serious.

IBA is committed to implementing best practices in the field of Occupational Health and Safety to keep our promise of No Harm to our people.

To achieve this result, we:

- ensure IBA operations comply with applicable occupational health and safety regulations, and when appropriate, implement additional controls to meet company requirements.
- empower all employees to stop any activity which they judge to be hazardous and that goes against our 'No Harm' principle.

Through all steps of the development, implementation, and operation of IBA products and services, we ensure the highest standards of safety for our employees.

At IBA, we recognize that time out of the office can be beneficial. We partnerwith local associations to offer our employees refreshing team building or individual activities during lunchtime. Social clubs are promoted by IBA and organized by voluntary employees. Climbing, golf, biking, running, hockey, photography and indoor fitness are a few of the employee clubs organized at lunchtime or after hours.





In Germany, we organize health weeks to promote health and well-being activities and practices. We sponsor sport activities and events (cycling, running, etc.). And employees have access to a financially attractive bike lease program in an effort to promote sport, low impact commuting and well-being.

In the US, our IBA Wellness Portal provides IBA employees with fun and engaging challenges (running, walking, etc.), online training, exercise and nutrition tracking, health coaching tools, social features, wellness blog articles, company announcements, Human Resource documents and more.

All IBA employees have access to a global high-quality Employee Assistance Program, regardless of where they live and work, providing assistance in the local language in more than 70 countries.

Through this program, practical information and counselling on a variety of topics is available to the employees and their relatives, and counselling is offered at the most convenient time and location.

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Our stakeholder approach pushes us to consider all aspects of our activities, including societal and environmental, and to involve as many people as possible in order to increase the positive impact we have on society.

> Olivier Legrain Chief Executive Officer

#### ENCOURAGING LOW IMPACT MOBILITY

IBA encourages efficient, low-impact and healthy mobility. We propose attractive leasing conditions to our employees for low-impact mobility vehicles, such as electric bicycles and scooters. This is an efficient way to combine daily commuting and parking lot optimization, healthy exercise, fitness, and carbon footprint reduction.

More than 200 bicycles are under lease in Belgium and Germany, representing a 20% uptake by IBA staff. IBA is regularly awarded at the Belgian "Active Bike" challenge, ranking among the most proactive Belgian companies in this area.

IBA also promotes electric cars through attractive leasing conditions, free charging and adapted infrastructures: specific parking lots, and high-power charging stations.

20% of employees in Belgium and Germany have leased a bicycle A big thank you for the greater choice offered by the new bike lease formula, for the bike allowance and the excellent infrastructure at IBA. It's a pleasure to cross the fields in the morning and then overtake the line of cars when approaching IBA.

**François,** an IBA biker

#### **COMMITTED TO OUR SOCIETY**

We firmly believe that the purpose of an economic player must be to promote social progress and collective well-being. The model we endorse - both externally and internally - goes beyond regulatory compliance: it encourages an ethical vision of practices and behavior, respect for differences and a meaningful contribution to the communities around us.



YouthStart, an association which every year trains young people "not in Education, Employment or Training" (NEET's).



Recruitment information evening

#### SUPPORTING EDUCATION

While we invest heavily in training our employees, we are also committed to educating young people. We believe that passing our knowledge on to younger generations is vital to assuring our future.

Over the long term, we will continue to support partnerships with NGOs, foundations and universities which will help improve learning and education. In 2022, IBA continued its collaboration with Foundation for Future Generations, as a partner of the Hera Awards program, with the Philippe de Woot Awards, and with the University of Louvain by supporting the "Civil Biomedical Engineer" diploma program, enabling the Louvain School of Engineering (École Polytechnique de Louvain - EPL) to expand its range of courses.

IBA employees regularly share their experience and knowledge with universities and high schools. We have an active policy of integrating young people into professional life, by offering internships, end-of-study work, and student jobs. IBA mainly hires local employees in the countries where it has operations, creating jobs and providing wages to residents in the nearby area, and thus boosting the local economy. This is our way of making a positive contribution to the future of society at large, and of attracting new talents to IBA.

And, since 2021, we support YouthStart, an association which every year trains more than 1000 young people "not in Education, Employment or Training (NEET's)", preparing them to enter the professional world.



Youthstart



Watch the video: Hera sponsoring.

#### **ENGAGING WITH OUR SUPPLY CHAIN**

We believe that a strong and responsible supply chain benefits our community.

IBA has approximately 100 main suppliers worldwide supporting its design and product manufacturing. The majority of IBA suppliers are located in Europe. IBA suppliers have been selected for their ability to best comply with requirements as stipulated by ISO 13485:2016. The selection and qualification process of a supplier considers the criticality of the supplied goods and services. IBA promotes technical collaboration and innovation with its partners in order to reduce risks, costs and improve the quality of its products and services. Strategic partnerships are developed whenever beneficial.

The nature of our activities and the origin of products entering our production chain are not considered to be risky in terms of respect for human rights. However, we recognize that our knowledge of our entire value chain is not optimal. We have a good view of our first level of supply, including rigorous vendor selection and validation processes, although with regard to suppliers and subcontractors beyond the first level, we acknowledge our ignorance.

In this context, IBA releases its 'Conflict Minerals' report, and Code of Conduct for Suppliers, which outlines the minimum standards expected from its major suppliers. The Code of Conduct for Suppliers builds on, and is in alignment with, the IBA Code of Business Conduct, which all IBA employees must adhere to. Within their sphere of influence, IBA also expects suppliers to communicate the principles and to apply these minimum standards to their subcontractors and suppliers.

IBA's Code of Conduct for Suppliers follows and supports the United Nations Sustainable Development Goals (SDGs) by aligning the principles of this Code of Conduct with relevant SDGs. IBA is committed to achieving this journey together with its suppliers as equal partners.





Watch the video: IBA's commitment to SDG.

#### SUPPORTING PATIENT ORGANIZATIONS

Around the world, IBA's men and women, all experts in their field, are passionate and enthusiastic about what they do. They collectively seek to play an active role in putting our mission statement into practice, "Protect, Enhance and Save Lives".

They help each patient have access to the most beneficial treatment for their cancer, and they bring more efficient and more environmentally friendly industrial technologies to our customers.

IBA also supports patients and their families, in partnership with those working in the field and by encouraging voluntary citizen actions by its employees: sponsorship, facilities sharing, donations from employee initiatives such as "Relay for Life", "FunRun", "Rock Against Cancer" or "Golf Against Cancer" events.

Associations such as "Compass to Care Childhood Cancer Foundation" in the US, "Muni Seva Ashram" in India, "La Vielà" and "L'Essentiel" in Belgium, which support people with cancer in order to offer them a better quality of life, have also benefited from the ongoing support of IBA and its employees for many years.



It was very positive to see behavior changes in the participants and their families during this challenge. Some of these changes will definitely remain





IBA is conscious of the current major environmental crisis. Amongst the many challenges to address, we are today specifically focusing on two: our greenhouse gas emissions and our waste. Our aim is to regularly broaden this focus to include other environmental impacts, stricter targets and ultimately restorative actions.









Soil Capital



Watch the IBA Soil Capital Partnership video.

### **NET-ZERO** 2030 $CO_2$ EQ

#### CLIMATE

Our impact on global Greenhouse Gas (GHG) emissions is both direct and indirect:

- A direct impact through our operations: our offices and manufacturing infrastructures, and our employees' travels.
- An indirect impact through our installed product base: production at our suppliers' facilities, transport within the value chain, and, once installed at the customer's location, via electricity consumption, servicing, and decommissioning.

Inspired by the EU climate targets we have set ourselves goals for reducing our operations' net GHG emissions to zero by 2030.

This will be achieved by taking action on our infrastructure and mobility impacts to reduce them by at least 50% below 2018 levels by 2030, and for the remaining part, via offset.

Green energy contracts are in place, and the IBA Headquarter facility has been designed to save energy and be self-sufficient in energy production.

We are assessing the impact of our digital infrastructures and software usage, to better understand the carbon footprint of this ever-increasing part of modern organizations.

We continue to work on our mobility policies to address both the efficiency and the carbon footprint of our employees' mobility, via incentives for low-impact, public and electric mobility, home working practices and a more efficient servicing organization.

Through the carbon farming project led by 'Soil Capital', IBA purchases carbon certificates from regenerative local agriculture, contributing to the decarbonization of its regional operations. This voluntary initiative advances the creation of a market in Wallonia for these certificates, which support transitional agricultural practices that reduce net greenhouse gas emissions at farm level. Such practices not only increase biodiversity and support the local economy and sustainable food systems, but also create a framework allowing other private, public and voluntary actors to join and improve this pilot project.

> IBA's support to pay farmers for storing carbon really was a necessary condition for the success of this project.

> > Chuck de Liedekerke CEO Soil Capital LTD

Through the introduction of the eight rules and practices of ecodesign, IBA also continuously reduces the  $CO_2$  footprint of its installed base by increasing the energy efficiency and reducing the mass of its product portfolio.



The Proteus<sup>®</sup>One proton therapy system offers significantly improved energy performance thanks to the use of superconductivity.

Our RadioPharma Solutions division has completed the technological transition to the Cyclone®KIUBE, with significantly greater compactness [less resources used] and energy efficiency.

Our Industrial Solutions division is also continuing to transition with the arrival of the Rhodotron<sup>®</sup> new generation, the energy performance of which has greatly improved.

We are gradually assessing our supply chain impact, with the enforcement of a Supplier Code of Conduct that addresses climate impact, among other topics.

We annually monitor and publish our GHG emissions related to our installed base and to our organization worldwide: offices and production means, and employee mobility (fleet of company vehicles and professional air travel /public transport).

With a view to increasing transparency and benchmarking our practices, we disclose our environmental data every year through the Carbon Disclosure Project (CDP). IBA was awarded a B- score in 2022, and has now entered the "management level" class of companies taking coordinated action on climate issues.

#### WASTE

IBA also has an impact on waste production:

- . A direct impact through our operations: offices and manufacturing processes.
- An indirect impact through our installed product base: production processes at our suppliers' facilities, transport within the value chain, and, once installed at the customer location, servicing and decommissioning.

We have set ourselves targets for reducing our unsorted waste intensity by a factor of 3x below 2018 levels by 2025.

This will be achieved by making changes at all levels to the impact of our logistics, manufacturing and offices. Product packaging, for instance, is being continually improved to reduce its overall environmental impact.

Through the introduction of ecodesign practices, our product management takes into consideration the principles of circularity - avoid, reduce, reuse, recycle. All products from the four business lines, namely Proton Therapy Solutions, RadioPharma Solutions, Dosimetry Solutions, and Industrial Solutions are designed to facilitate maintenance and servicing. A circular process to return defective or surplus parts deployed to our customers is now in place, for repair, resale or recycling.

Our Rhodotron<sup>®</sup> industrial solutions allow in-house customers or contract sterilizers to sterilize medical devices by E-beam, offering a readily available and green alternative to gases such as ethylene oxide, and nuclear materials such as Cobalt-60.

IBA has also developed "low activation" concrete, which significantly reduces the amount of waste to be reprocessed during the future dismantling of the casemates hosting its accelerators, therefore costs and the environmental impact. This concrete was also used during the construction of our new headquarters.

IBA is also affiliated with Recupel and declares the equipment placed on the market subject to the obligations of WEEE legislation.

To better manage the outcome of our actions, we monitor and publish our waste emissions related to our worldwide operations.

#### BIODIVERSITY

IBA also has an impact on biodiversity:

- . A direct impact through our operations: offices and manufacturing facilities.
- An indirect impact through the waste generated by our operations indirect impact through the waste generated by our operations.

In partnership with Natagora, we have set targets for labelling our main facilities 'Réseau Nature Entreprise'. This aims to develop biodiversity in our workplace by taking actions that benefit nature. Various measures have been implemented to support biodiversity, such as green roofs, planting native species, or adopting sustainable gardening practices to reduce our ecological footprint. A pilot micro-compost of green waste is now in place, in partnership with a local company to test and hopefully develop this innovative practice around our facilities.

#### MATERIALITY AND REPORTING

To clarify its priorities, IBA maintains a materiality matrix based on a dialogue with its stakeholders and the reference framework recommended by the Global Reporting Initiative (GRI). It is in this broad area that we are concentrating our efforts. The hierarchy of our priorities is obtained by aligning the concerns of the company with the interests of all stakeholders.

This matrix takes into account data from the ongoing dialogue that IBA has established with all its stakeholders, through formal and informal exchanges and from publications on environmental issues.

For more information on our yearly results, please refer to the GRI Index in our annual report.



#### **Materiality Matrix**



iba-worldwide.com



#### **Contact IBA**

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