

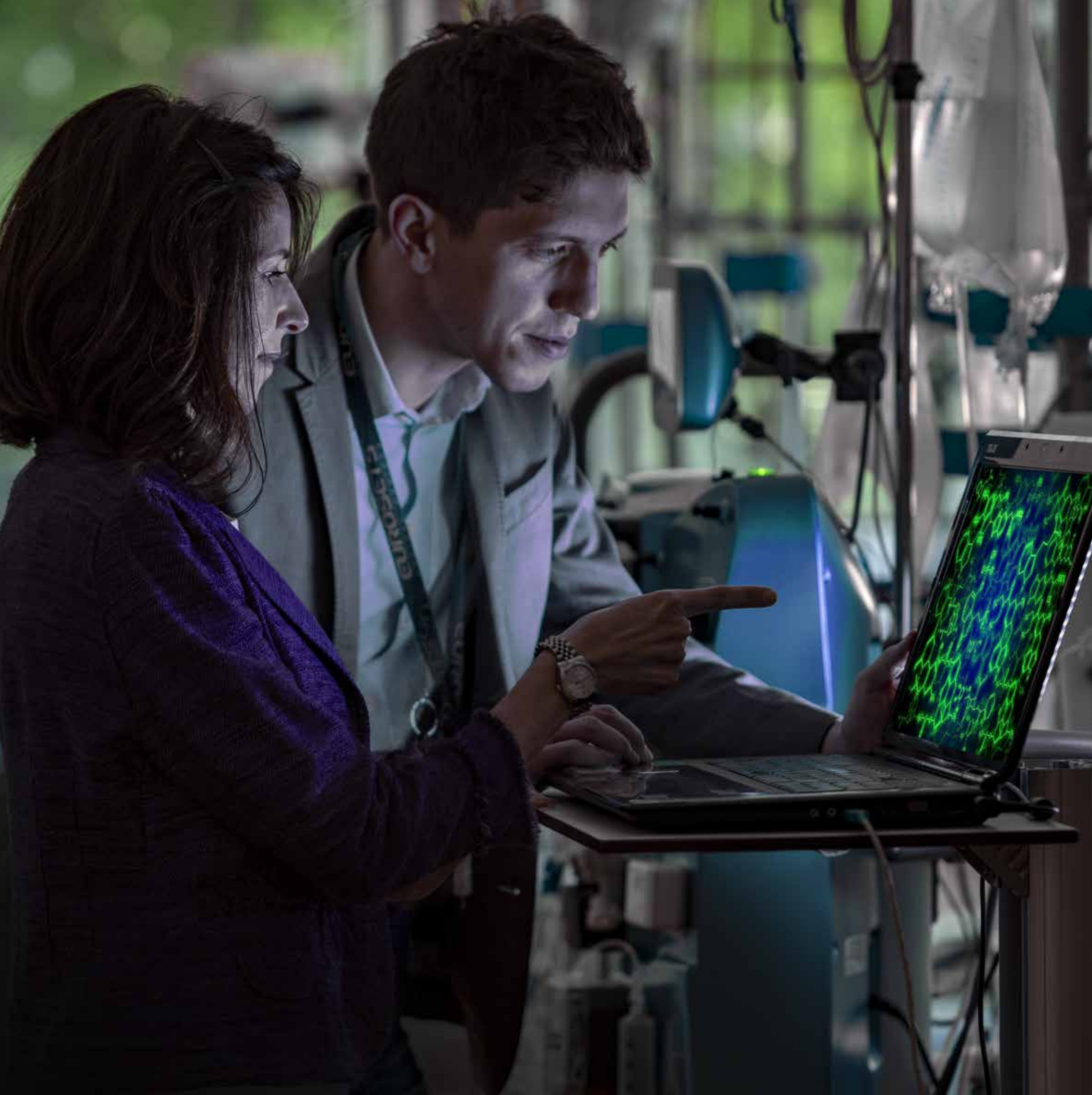
(Es)sence Of Life



30
YEARS OF
INNOVATIONS
TOGETHER



EUROSETS



INNOVATION

Eurosets: past,
present and future.

- **Thirty years of adventure, from disposable devices to cutting-edge technologies guided by a single principle: “Every life matters”**
- **People’s lives at the heart of innovation inside and outside a company that has become the emblem of Italian manufacturing in the biomedical district**
- **Tenacity in the face of natural disasters, courage in the face of market challenges and ambition in the face of the dominance of the multinationals**
- **Eurosets means excellence: the dream of building the future of medicine with science and knowledge**

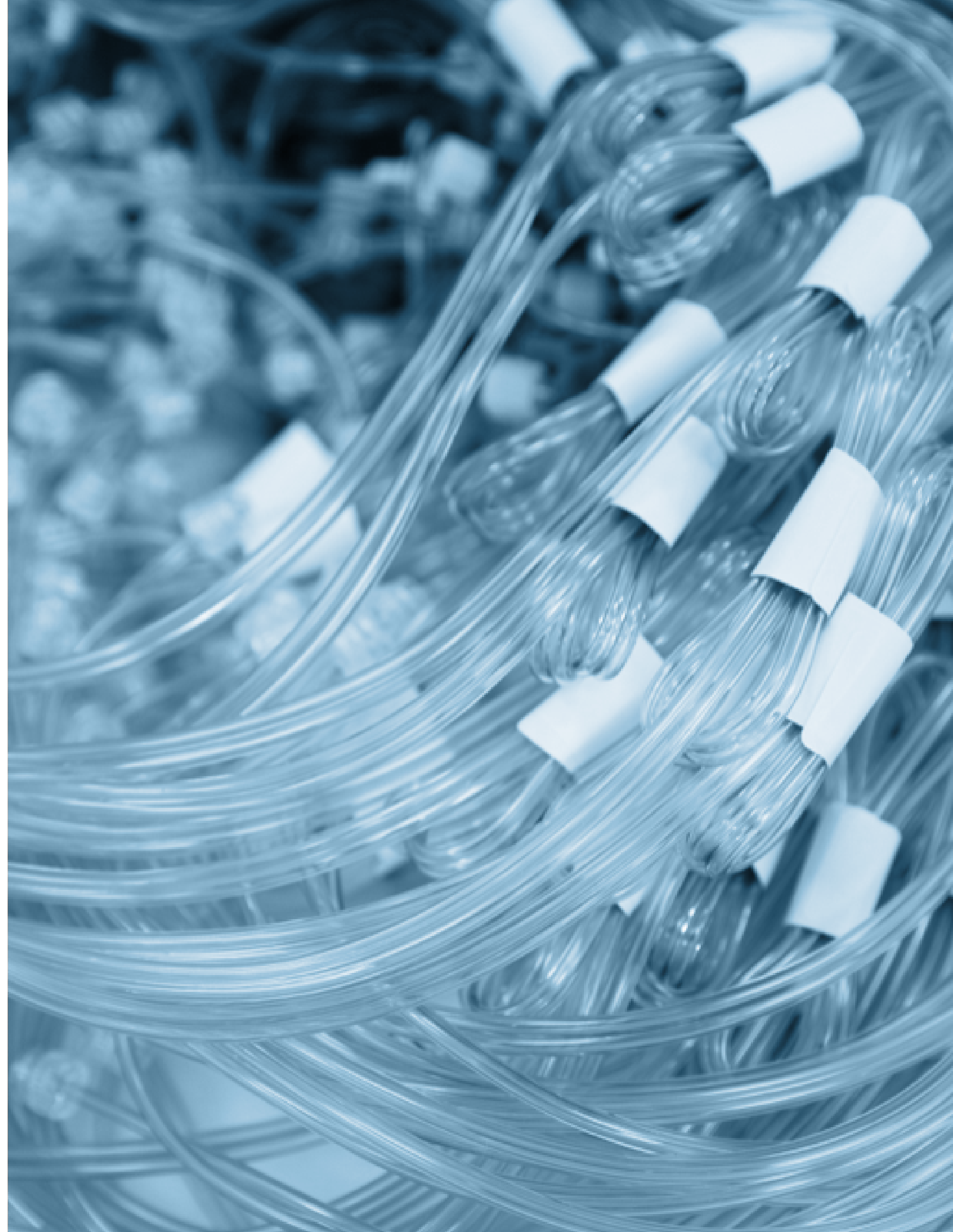
1991 saw the birth of the World Wide Web with the first website using hypertext language, the end of the First Gulf War, the death of Freddie Mercury and a profound crisis leading to Andreotti’s seventh government in Italy. Meanwhile, in Medolla, Pietro Vescovini and his wife Vanna registered a small family business with the Chamber of Commerce, set up almost for fun to assemble disposable biomedical devices. Thus Eurosets was born; its history - like all the events of this Emilian business miracle that blossomed from nothing in the middle of the Bassa Modenese countryside - traces its origin to the father of the district, Mario Veronesi, an enlightened man who left an indelible mark on everyone who worked for him, including the Vescovinis. A few years later, 1998 saw the arrival from Romagna of the pioneer of Italian private healthcare, Ettore Sansavini, who was looking to buy a strategic asset for the clinics belonging to his group, GVM Care & Research, which has always been at the cutting edge of cardiac surgery, with a desire to push research and innovation into medical devices to become the leader in this highly specialised field. The recipe for Eurosets’ success is the same as that which led to the blossoming of the “Mirandola district”, a case study in industrial economics textbooks: working in hospital corridors, solving doctors’ and patients’ problems to improve the former’s work and the latter’s health, and anticipating what healthcare will look like in the future. The May 2012 earthquake and the flood two years later merely bolstered the tenacity of this small, dynamic team, rather than slowing down its rise. Today, it stands out in the local area not only because so far it has resisted the temptation of foreign capital but also because it is competing on global markets with the same strength in terms of product quality and design as the American and German multinationals despite being one hundred times smaller.

Eurosets is celebrating its 30th birthday, the age of maturity, at the height of its strength and in control of its own future. And the launch of ECMOLife in 2020 is symbolic of the audacity and prospects of this company that was ready to face the Covid emergency with a revolutionary life-saving device. The stones used by this David to fight the Goliaths of the global biomedical arena and responsiveness: its new guards them carefully. It is years ago, the move from dis- ical therapies is now taking that technology and health millennium.



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EUROSETS

EUROSETS



ETTORE SANSAVINI

President Eurosets and GVM Care & Research



see interview 

Having left Lugo fifty years ago as a qualified accountant and with a dream of setting up in Italy a highly complex private healthcare system based on the American model, this **self-made man** from Forlì now heads up a multinational group, the **Gruppo Villa Maria**, with turnover of over 700 million euros employing nearly 9000 people in 31 clinics in Italy and 12 abroad, and a company, **Eurosets**, acquired in 1998, which are the two faces of a single vision: combining technology and medicine to ensure the best treatments

in the world. The pioneer of Italian private healthcare has, on the one hand with **GVM Care & Research**, become a benchmark of excellence in cardiac surgery (14% of heart operations in the country take place in his hospitals), while, on the other, with **Eurosets**, he is competing by means of research and innovation with American biomedical multinationals 100 times bigger.

Why did you acquire Eurosets?

In my plans for work firstly and then as a businessman I have always thought about highly complex, demanding healthcare and it is clear that this immediately implies technology, which at the time was coming predominantly from the US, in particular the technology used for cardiac surgery and extracorporeal circulation. I have always been a great fan of technology, to the extent that I have always considered that combining industrial and medical research is a necessity rather than a possibility, and I believe that I am right in this. Doctors need new technology and new technology needs doctors in order to grow: it is an important integration that has enabled both GVM and Eurosets to grow.

And why do you produce technology in-house rather than buying it from the best competitors?

I began a collaborative venture with Dideco to build an oxygenator for cardiac surgery, which remained on a 50-50 basis. My interest and pleasure in seeing the work completed led me to invest in Eurosets: this is what I am like; I am not attached to the value of what I create, but I am attached to the aim and, for me, the aim was to create technology through research and ownership patents exploiting medical experience.

First the earthquake, then the flood and meanwhile you are not getting any younger. Have you ever thought of giving up?

No. Moreover, adversity is the bread and butter of entrepreneurs. I think I have had more of it working in healthcare (In Italy, healthcare is mostly public sector and subject to politics, editor's note) but I have never thought about giving up; quite the opposite: adversity is a great stimulus. Latterly, Covid has scared everyone, like a war, but I have gone through it working harder than ever, setting up Covid centres overnight, complete with technology, equipment and respirators collected from all across the world, inspecting containers in the port due to the risk of their being diverted elsewhere.

How do you imagine the company's future, now that it is a mature 30-year-old firm?

A business like this one can grow quickly by acquiring other similar or complementary firms, or else it can continue to proceed alone but more slowly, with its own research, technologies and patents. I love what we can do ourselves; I am less keen on going down the road of acquisitions, I prefer slow internal growth. Clearly there are times when you have to decide which road to take and whether you need to become bigger quickly to stay in the market, when mergers or acquisitions are needed.

So, will Eurosets be on its own or married in the coming years?

In the short term, we have a growth programme first and foremost involving our internal resources, but we always keep an eye on what interesting things are going on around us. What is sure is that when the time comes to take important decisions such as an M&A where one can be the loser or winner, I want to be the winner, in other words I want to continue to lead the company.

What objectives do you still want to achieve?

Despite my age, I have not yet achieved any objectives; I always set myself new ones each morning when I get up. Either because of what I have dreamt during the night or because as soon as I achieve one, I immediately want to think of another.

What is Eurosets for you today?

Eurosets is a tiny jewel that is becoming a bigger jewel and I think that one day it will become a big jewel that I would like to see shining ever brighter. We already have plans to expand the factory and produce new products; we export more than 80% of our production volume and we operate nearly everywhere in the world. When I began my adventure in private healthcare, the Americans were my model; they seemed so good and ahead of the times, and I imported their products. Today, I am selling products made in Medolla to the Americans, and not only to them, but to the Japanese and the Chinese as well: this fills me with pride.



OUR REVOLUTIONARY TECHNOLOGY SAVE LIVES



12

A 17 kg case of metal, plastic, electronic components, circuits, pumps, sensors and tubes, which can be carried anywhere and takes over the work of a heart and two lungs for days - or even months - simply by being connected to the femoral vein and artery and can make the difference between life and death not only in a hospital ward but anywhere we go, even on a plane, pumping, filtering and oxygenating up to 6 litres of blood a minute. This is ECMOLife, Eurosets' latest patent, a small portable heart-lung machine that enables people to survive shock or cardiac arrest in two-thirds of cases and marks the way forward for high-quality local medicine.



13

The result of four years of studies, plans and tests in the Medolla offices and laboratories, the ECMOLife system was launched on the market during summer 2020 and is the undisputed star of this thirtieth birthday in the portfolio of patents and solutions - including cardiopulmonary support, extracorporeal circulation devices, orthopaedic and thoracic drains and devices to treat ulcers and wounds - of this scion of the Modena biomedical district.

ECMOLife is destined to become the poster child demonstrating the credibility and reliability of a firm that began some twelve years ago to move away from commodities to electromedical technologies and now wants to set aside its image as a small contract manufacturer and have the brand recognised as one of the best producers of highly complex cardiac surgery devices on the market. With one advantage over the big boys: speed of response and the ability to adapt its products to its customers' requirements. The Mirandola DNA that mixes technical skill, Italian creativity and Emilian audacity makes the difference even to non-experts in product design as its products are not only well made but good to look at. So much so that Frost & Sullivan gave ECMOLife the award for most innovative product in the global biomedical sector in 2021.



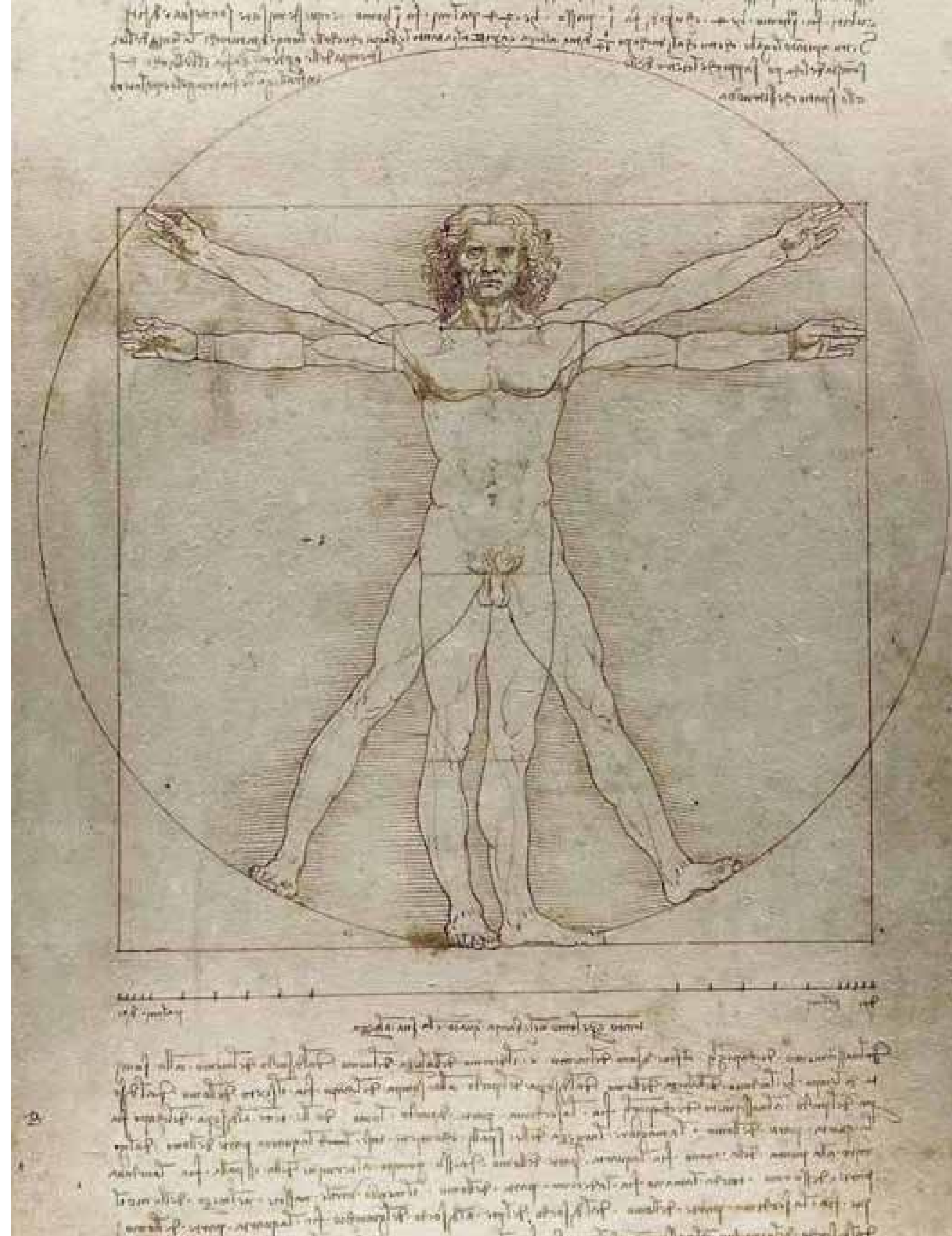
PERSON CENTRED THERAPEUTIC AREAS

Thus, the Eurosets team, then fifty strong, launched the first oxygenator for cardiac surgery on the market in 2007. It seemed a “mission impossible” to make its way in a completely stagnant market like the biomedical market among giants like LivaNova, Medtronic, Maquet Getinge and Terumo. “We were seen as amateurs seeking to conquer our competitors,” recall marketing colleagues. “Instead, we immediately gained ground, receiving a great response from Italian hospitals where we were known and liked for our drains for cardiac surgery and orthopaedics.”

The oxygenator symbolises Eurosets’ determination. Two years before its launch, in 2005, it took over a start-up set up by three technicians with a track record in designing oxygenator devices with a clear objective: to create membrane devices with the smallest possible area of contact with the blood, the lowest priming and maximum biocompatibility. It managed it: a cylinder the size of a beer can with just over one and a half metres of fibre inside and a core of 70 knurled steel tubes (the heat exchanger: the blood flows inside and water outside) does the work of 75 m² of pulmonary alveoli and oxygenates 7 litres of blood a minute.

Since then, Eurosets has developed seven different models of oxygenators for extracorporeal circulation, produces 100 thousand of them a year and has won 8% of the cardiac surgery market, with 1.64 million patients worldwide. In 2011 it created Trilly, the first paediatric oxygenator on the market bearing the Italian name of Peter Pan’s fairy friend Tinkerbell, and in 2017 the revolutionary Remowell, which is unique in the world for being able to filter and remove up to 60% of lipid cells and leukocytes that flow in the blood during cardiac surgery, thus protecting patients from possible neurological damage.

The cardiopulmonary line is just one of the three specialisations offered on the market by Eurosets today, on its thirtieth birthday. There is the ECLS - Extra Corporeal Life Support - range that includes ECMO devices and equipment; the Wound & Blood Management range, which includes the historic drainage solutions and Waterlily, the innovative hypobaric therapy for ulcers; and the OEM (non-sterile components) activity, which accounts for less than 20% of turnover but ensures critical mass and diversification.



INNOVATIVE PRODUCTS AND PATENTS

The number of patents has increased more quickly than the years have flown by for Eurosets. This year, it will blow out 30 candles but it is highly likely that before December it will reach the landmark of 50 patented inventions, all in pursuit of “every life matters”, the motto that guides every corporate strategy. The patents crystallise not only its researchers’ and designers’ knowledge and experience but the passion and team spirit that is only found in small businesses. And in the Strada Statale 12 factory, the Kaizen approach of continuous improvement is combined with great respect for people, more important even than deadlines and market efficiency.

There is a family feeling to the particular shape of each device and in the choice of colours and names, a feeling in which thrift (which enables Eurosets products to be considered by the market as excellent value for money) is seen as one with the feeling of belonging to the group and the ecosystem’s ability to listen.



New arrivals comment on the extremely high level of energy and commitment and there is an equally high level of pride in feeling they are joint players in a company that it is not afraid of cross-fertilisation and of opening its doors to skills that have nothing to do with plastics and medicine, because it never presumes to know where the market is heading.

Out of this openness to the new has come not only the star of the moment ECMOLife - with its revolutionary magnetic levitation pump that simulates the work of the heart preventing blood coagulation - but also patents like Landing, the first equipment designed in-house by Eurosets and the first monitor of its kind on the market, which can monitor in real time tens of blood metabolic parameters linked to correct oxygen transport, used for cardio-pulmonary bypasses and ECMO. Then there is Waterlily, a kind of suction cup with pneumatic seal and vacuum generator, which sends blood from healthy tissue to necrotic tissue and speeds up the healing of wounds and ulcers. Or else, CO2Reset, the first machine in the world capable of removing excess carbon dioxide from blood while at the same time supplying oxygen, a kind of pulmonary, rather than renal, dialysis.



THE LEAP FORWARD IN THE FACE OF THE PANDEMIC

of this microporous synthetic fibre are needed for each mini-water bottle-sized cylinder, which mimics from the outside the work of a lung, oxygenating the blood of people unable to breathe on their own.

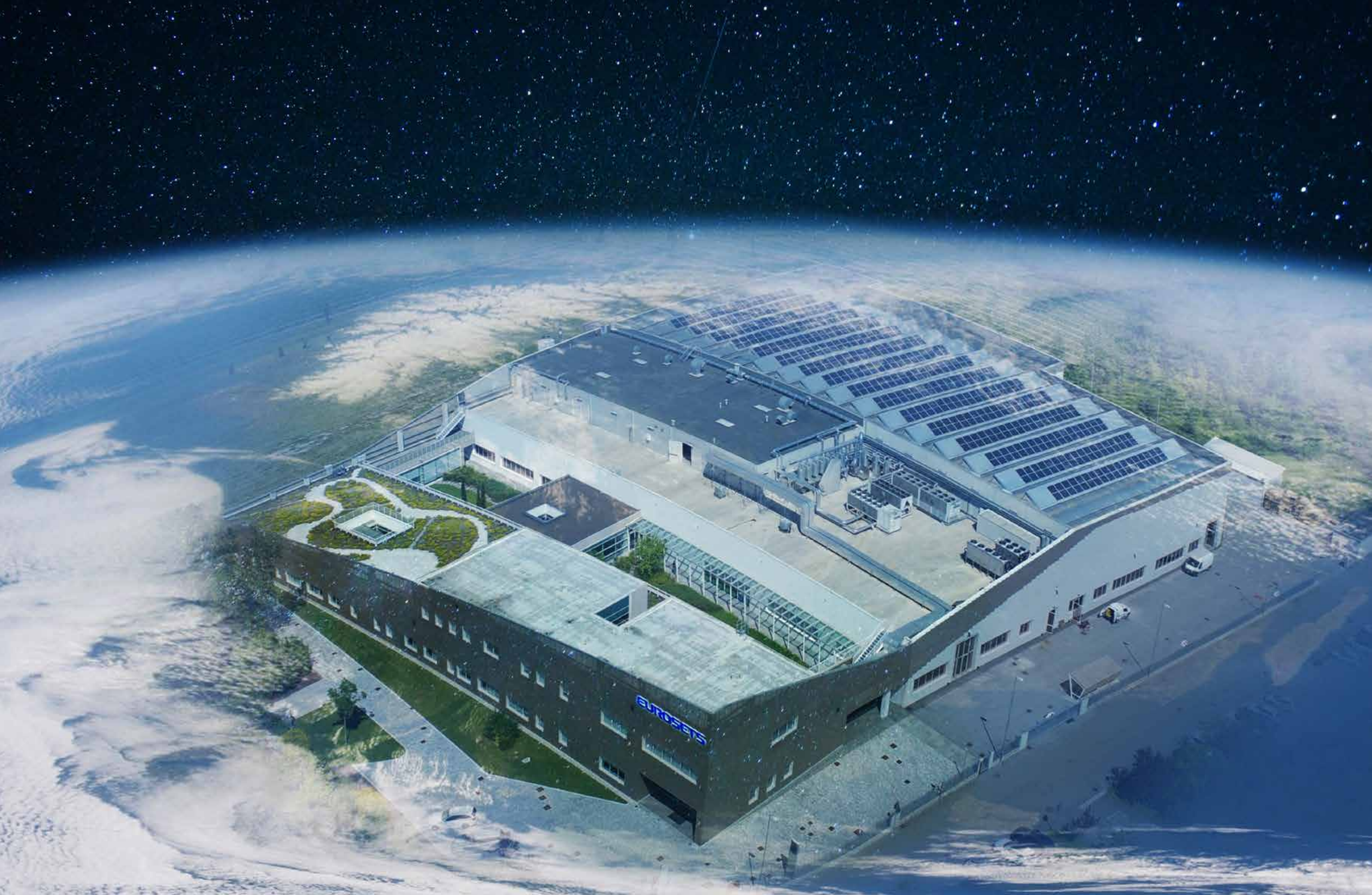
However, the health emergency was not just an explosion in demand. While staff were working six days out of seven in the Medolla white rooms making oxygenators, most of the cardiac surgery and orthopaedic surgery devices remained in the warehouses, because surgical operations were drastically reduced and orders collapsed. A year and a half after the pandemic began, the situation has still not returned to normal, though it has improved as a result of the vaccines.

With the explosion of the coronavirus pandemic, orders for extracorporeal pulmonary oxygenators quadrupled. Eurosets, the only Italian company manufacturing ECMO (Extracorporeal Membrane Oxygenation) devices that can reproduce the work of the pulmonary alveoli enabling carbon dioxide and oxygen to be artificially exchanged so that the lungs can rest, increased production from 300-400 devices a month to more than 1200. Trained by the 2012 earthquake and 2014 flood to cope with emergencies without complaining but also with an awareness that work is dignity (and that in Eurosets working means others' lives are saved), the production workers all moved to the oxygenator line.

To cope with the boom in demand, the firm asked employees to work voluntarily in person, including doing overtime on Saturdays, complying fully with safety protocols. Almost all agreed despite the lockdown, school closures and measures promoting smart working: extra proof, if it were needed, of the exceptional nature of the people in this community, something that had already been shown at the time of the earthquake and flood.

Unfortunately, production capacity was limited by major problems procuring the fibre needed to manufacture the ECMO device: two kilometres

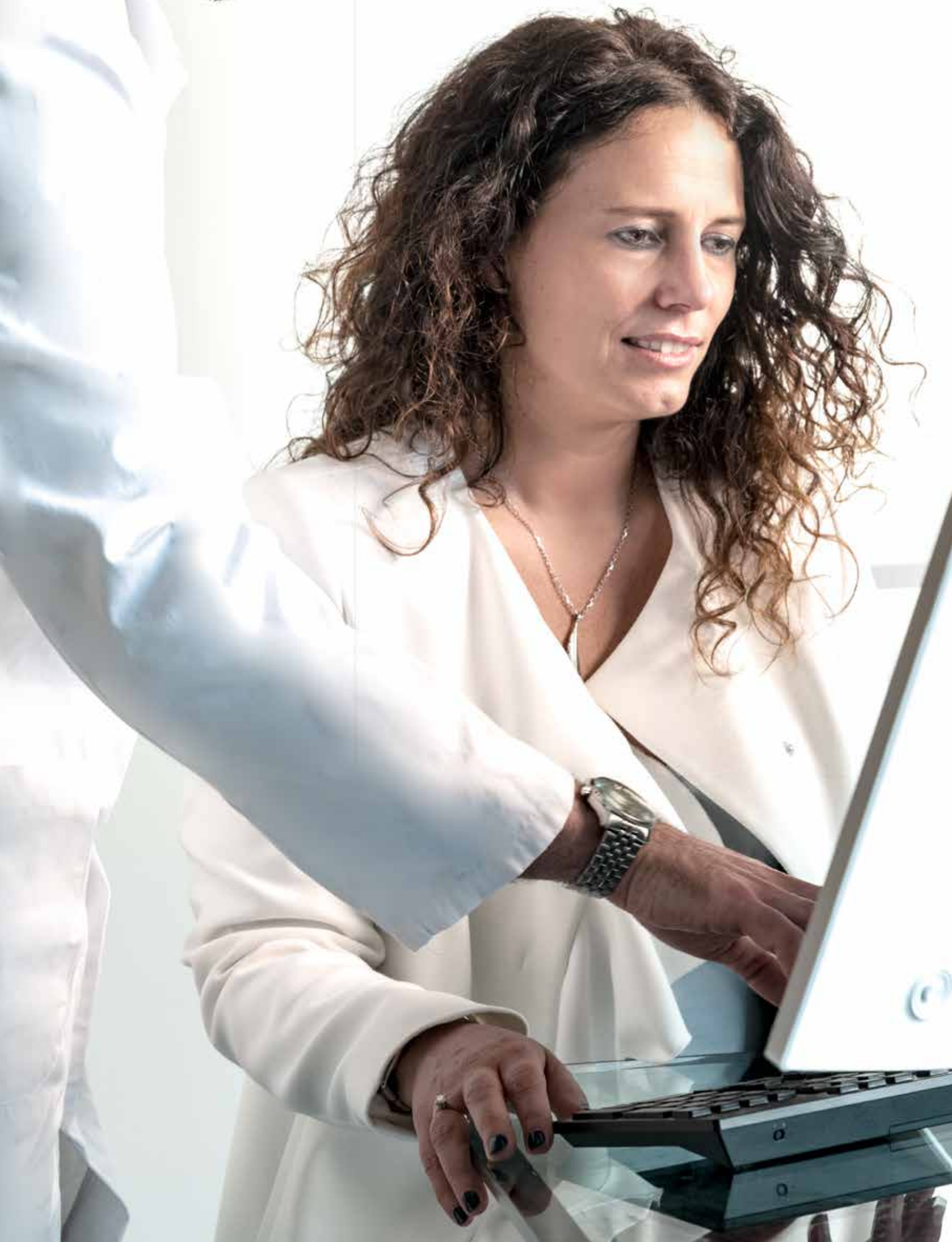




EUROSETS

FROM 1 TO 100 COMPETITIVENESS HAS NO LIMITS

Its figures are a hundredth, often even smaller, of those of its main international competitors, yet with its 250 employees and turnover of around 45 million, it competes on a level footing on the global markets with those who measure their business in billions and their workforce in thousands - names like Medtronic, LivaNova and Maquet Getinge - and as a result of its patents and exclusive technologies it is starting to be seen by the "Goliaths" of the sector no longer only with goodwill. Size has never been a limit to innovation and growth for Eurosets, an increasingly swift and competitive David in the biomedical landscape. Beginning in 1991 in a 1500 m² factory producing semi-finished products and acquired in 1998 by the private healthcare pioneer from Ravenna, Ettore Sansavini (GVM Care & Research), about twelve years ago the firm began to specialise in blood oxygenation machines. Today, in its futuristic 12,500 m² green factory it produces drainage solutions and devices for autotransfusion, cardiac surgery and orthopaedics as well as exclusive technologies, like Landing, the first monitor in the world to measure blood oxygen levels in the operating theatre, CO2Reset, a machine similar to a dialysis machine that eliminates excess carbon dioxide from hypercapnic patients, and ECMOLife, the portable heart-lung machine, the undisputed star of the company's 30th birthday and the product on which it is wagering its future.



INTEGRATED
RESEARCH
INTO
TECHNOLOGIES
AND
SELF-
LEARNING

WALKING TOGETHER

People are at the heart of corporate strategies inside and outside the Medolla factory that has become a symbol of sustainable development.

ANTONIO PETRALIA

Executive Vice President & CEO

Eighteen out of Eurosets' 48 patents were created by him, the Archimedes of mechanical engineering from Romagna with a passion for medicine and an academic career marked by "**lateral thinking**" (nurse-mechanical engineering expert), while continuing to work in the operating theatres of the **GVM Care & Research Group**, where he has developed as a cardiac surgery technician. He has been on **Eurosets' board since 2000** and has worked full time since **2008 as technical and scientific director** after taking a second degree in Technical and Health Sciences in Florence (his first being at Rome's Sapienza University as a Cardiac Surgery Technician), since **2014 as Vice President and since 2017 as CEO**. Having overcome earthquake, floods and reconstructions without ever losing sight of profits and production innovation, he now has the challenge of taking Eurosets into the next 30 years.

Following on from ECMOLife, are there other disruptive innovations in the pipeline?

Eurosets will innovate on two fronts: on the commercial side, we will strengthen the sales network globally and intend to open other branches to increase the volume of sales of our existing products; at the same time, we will invest in developing new devices, in the same context but with an increasing focus on intensive care and resuscitation therapies. There is room to grow in all aspects of cardiac and pulmonary disease. We have in mind a device that may be an evolution of ECMOLife, which will be available not only in hospitals but will be able to be brought quickly to critically ill patients in the local area.

How many ECMOLife devices are you able to produce?

We don't have any production capacity problems as regards equipment (thanks to the network we have built with various suppliers). The real obstacle to distributing ECMOLife is training healthcare operators how to use it and how to manage patients connected to the machine. To increase sales, we have decided to create specific training inside hospitals.



see interview 



So, is ECMOLife Eurosets' future?

During the next ten years, our focus will move towards developing a platform within the ECMOLife project, which to tell the truth is already happening. Current epidemiological data tell us that pulmonary problems are the third biggest cause of death in the world and, unfortunately, there will be an increase in pulmonary disease, both in developing countries caused by pollution and in western countries as immune defences wane. Eurosets has a strong tradition in oxygenating blood artificially thanks to the devices it has produced these last 13 years and we want to exploit this knowledge adapting ourselves to market requirements. We are also convinced that over the next few years devices like ECMOLife will become part of cardiopulmonary resuscitation procedures in cardiac arrest cases.

And where will Eurosets be in 30 years' time?

I will have retired. I expect Eurosets will be listed on the stock market and I think it will still be dealing with heart and lung-related problems, but with completely different devices from today's; I imagine devices will have become much smaller but more effective, using sensors and nanotechnologies, things that we are beginning to glimpse today but which are not yet being used, at least not in our context.

Is the local area, the Mirandola district, still an advantage for the company?

Even now, most of our suppliers are local, even though the manufacturers of some semi-finished products are struggling more and more to hold prices down, stuck between Chinese competition and increasingly stringent regulations for maintaining certification. It would be a shame to lose them, as it would mean further increasing the proportion of the plastics manufacturing sector in the hands of Asian companies, and it would mean losing local knowledge. The earthquake was an opportunity in certain regards for rebuilding bigger companies with technological facilities that enabled them to become more competitive; they were also helped by their proximity to universities and the creation of the TPM, the biomedical technopole set up by the Emilia Romagna Region. All the ingredients for maintaining technology at a high level in the district in the coming years are still here and will be protected and promoted, suppliers in the first instance, because the wellbeing of the entire area depends on it.

So, you aren't afraid of Chinese competition...

The Chinese already have their hands on our devices; they open them and cut them up; however, they are not able to reproduce the most complex of them so my biggest problem today is not so much protecting product knowledge as production knowledge. We do not only design our devices but also our assembly machines; they are not on the market and the Chinese are now more interested in seeing our machines than our products; they would pay their weight in gold to visit our production facilities to understand the technology.



EUROSETS

MAIN PRODUCTS



ECLS

Disposable devices and equipment for extracorporeal life support.

ECMOLIFE

THE MOST GENTLE, SAFE AND VERSATILE SOLUTION FOR ECMO



CO2RESET

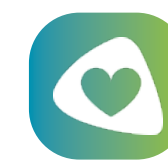
ECCO 2 R TREATMENT DEVICE



REMOVELL2



THE SOLUTION FOR EXTENDED CARDIOPULMONARY BYPASS DURATION



CARDIOPULMONARY

Disposable devices and equipment for mechanical support of corporeal circulation capable of temporarily sustaining heart and lung function.

LANDING



MONITORING SYSTEM FOR OPTIMISING CARDIOPULMONARY BYPASS

WATERLILY



NEGATIVE PRESSURE WOUND THERAPY



WOUND & BLOOD

Devices for orthopaedic and thoracic surgery and wound management.



EPOP2

NEW PATIENT MANAGEMENT IN THE POST-OPERATIVE PHASE

MIRANDOLA THE DISTRICT

“The competitive advantage of the district comes from the possibility of organising ways of learning and of collectively disseminating knowledge locally. Moving from one company to another, from a competitor already on the market to a new company, from one worker to another, the same knowledge is used several times, at the same cost but with increased product value.”

Enzo Rullani

*Professor of Economics
Venice International University*

Economists and historians often use the term “miracle” to describe what happened in the 1960s in this pocket of agricultural land in the Emilian plain, the “Bassa Modenese”, where a pharmacist, Mario Veronesi, sowed the first seed of what would become the most flourishing district for biomedical devices in Europe, a case study examined in industrial economics textbooks. A miracle, because there was nothing in terms of infrastructure, raw materials, capital or specialist skills in this area. But this did not stop Veronesi from creating a cutting-edge manufacturing centre, through an unprecedented “industrial catalysis” process combining a small number of ingredients: a pinch of “DIY” at the start, bringing together in a daring but innovative way skills and products to respond to hospital requirements; a good dose of “second-hand” experience during the expansion phase, with the chief entrepreneur’s lieutenants becoming in turn company bosses and developing new independent technology lines or solutions shelved by the parent company; the “humility” of the DIY entrepreneurs who stepped aside when their company reached a critical threshold, selling it to multinationals so that it could make the jump in size that requires structure and investments; and finally the “beaconing” effect, the involuntary force that attracts players from outside the district, won over by the success of the specialist centre, who arrive with great ambitions, thus amplifying the ecosystem’s growth.



This seed was sown and this miracle occurred in the precise spot where five centuries before a great Italian humanist and philosopher was born: Giovanni Pico della Mirandola – the Pico family was the local ruling dynasty – who, with his “De hominis dignitate,” put humans and their freedom to determine their own lives at the centre of the universe. Maybe it was not by chance that one of Pico’s “homo faber fortunae suae”, or people who can shape their own destiny, was the pharmacist and entrepreneur Mario Veronesi and, like him, many friends and companions in the adventure were brave enough to move from being employees to start up businesses in the biomedical district, set up by rolling up their sleeves, without any intervention from venture capitalists, business angels or incubators and without any public subsidies. Among these was Pietro Vescovini who with his wife Vanna set up Eurosets in 1991 in Medolla almost for fun, in response to the huge expansion of in-house assembly work done on behalf of the big companies of the district like Bellco and Dideco. He quickly realised that he could not handle the growth rate on his own so, in 1998, he opened the doors to the private healthcare pioneer Sansavini, enabling the jump that has made Eurosets today one of the most dynamic and interesting cases of Italian entrepreneurship in the Mirandola biomedical valley. In the midst of gigantic multinationals such as Baxter, Medtronic, LivaNova, Fresenius and B. Braun and a hundred or so small and medium-sized businesses that provide work here for over 5000 people and generate turnover of more than a billion euros.

MARIO VERONESI THE FOUNDER



EMERGENCY EXPERTS



The first tremor hit on 20 May 2012 with magnitude 5.9. But it was the second quake, on 29 March, of 5.8 on the Richter scale, that brought Eurosets and the entire biomedical district in the area bounded by Mantua, Modena, Ferrara and Bologna to their knees. Fifty-eight municipalities were affected by the earthquake, 28 people lost their lives, over 300 were injured, 19,000 families were displaced and tens of thousands of industrial buildings and houses collapsed. Yet, the “business” earthquake – as the first earthquake in Italian history to strike one of the most productive industrial areas of the country has become known – was an unforgettable lesson in dignity, pride, hard work and tenacity that this community offered during the emergency and during the reconstruction, despite 12 billion euros of damage and companies like Eurosets forced to work in tensile structures and to relocate so as not to stop production of life-saving devices.

Despite being quakeproof, that spring nine years ago, Euroset’s factory was torn apart with a diagonal crack a hand’s breadth wide. Employees and firefighters managed to rescue machinery and goods and transfer them to six temporary sites within a radius of several tens of kilometres.



The bulk ended up in early July in a 3200 m² building in Bastiglia; the administrative offices were set up in a meeting room rented in Modena and the warehouses were outsourced to Verona province. What was missing, however, was the white room, the heart of the biomedical production. “Thanks to support from a Tuscan firm, we designed in record time a kind of ‘large box’ made of sandwich panels, like those used for cold rooms,” recall some employees, “and in a month, we were back in operation.” On 13 August 2012, production restarted and by the end of October of that year all the turnover lost during the shutdown had been recovered.

Barely two years later, a flood damaged the Bastiglia site as well: on 19 January 2014, the River Secchia flooded the new factory, the water reaching a height of one metre; it took three weeks to clear the mud and repair the equipment: between earthquake and flood, the damage amounted to 7.5 million euros (a third of turnover at that time), but nobody thought of giving up, either two years earlier or then.

It is the people that live and work in this district who are the reason that Veronesi’s “miracle” happened here and not elsewhere and that Eurosets has grown even more determinedly since then. It is the people who are the explanation of why not even the large foreign multinationals left in 2012, as the institutions feared.

Instead of pulling down the shutters, at the end of 2014, the plan to reconstruct the new factory at Medolla accelerated and out of the ashes of the earthquake site rose a building more than double the size (12,500 m² instead of 5000 m²), which became a model of eco-sustainability in the Emilian biomedical valley.

Every day has its **decisive moment** when our **strength of will** is **sorely tested**, when we need to **prove to ourselves** whether or not we are **worthy** and which only the most **reckless** or manifestly **crazy** can **face** without hesitation and fear:

THIS IS THE TIME WHEN WE HAVE TO STAND UP

From the Fire Service final report



A NEW WORLD

2016



The current facility was opened on 4 April 2016, a date that also marks the start of a new production and commercial chapter for Eurosets, the turning point when more investments were put into intensive care therapy than into cardiac surgery. The natural disasters became the spur not only for building a finer, safer, more modern and larger workplace, but also for drawing on a regional measure for technological research and innovation that facilitated the leap to advanced solutions like ECMOLife. And we are now already thinking about how to expand further in the future, because even the space that, on paper in 2015, seemed as big as an ocean liner, has become too small for the team's ambitions.

THE VOICES
OF THOSE
WHO MADE
EUROSETS

OUR UNSTOPPABLE GRIT



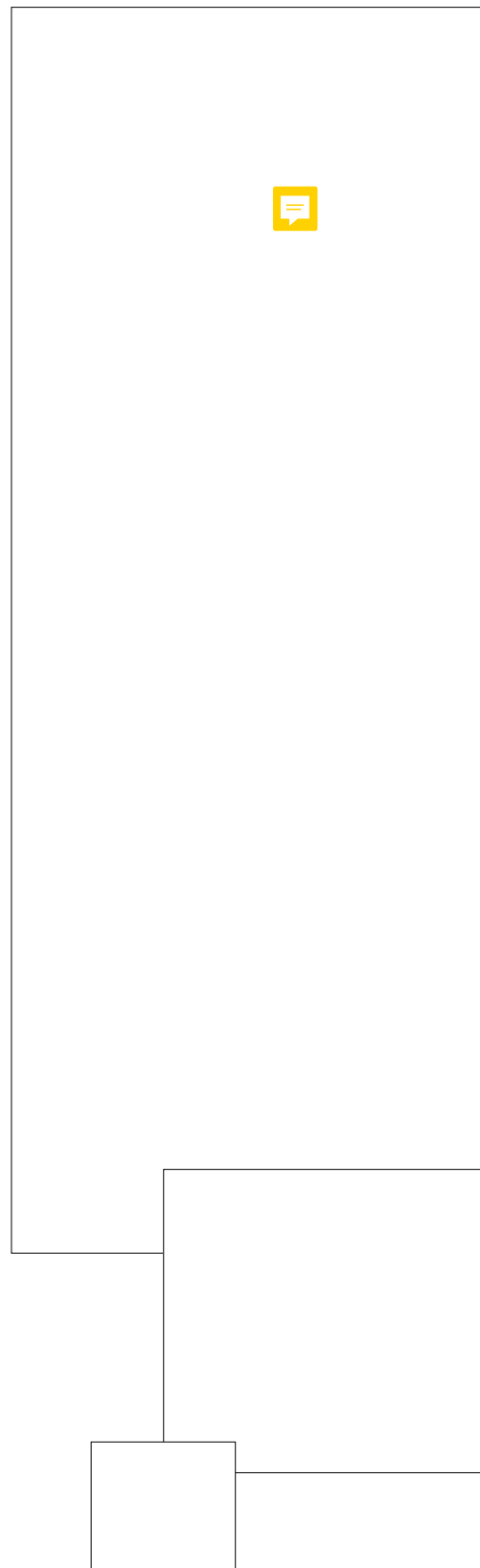
Silvia Riva
HR Manager

"I didn't know much about the biomedical district before responding to a job advert three years ago. I came with lots of experience of the fashion industry, where I had always dealt with human resources management and development. Here in Medolla, I discovered an ideal company for someone like me who has studied work and organisational psychology: you never get bored, there is a dynamism, a liveliness, a passion at all levels that inspires people to get involved, to be entrepreneurs themselves to make a profit for the company. The profits come and the company's constant growth is the lifeblood of a virtuous circle. I have been fortunate in that I joined the company not only to deal with personnel but also to support the CEO, and this has enabled me to get to know every aspect of Eurosets. For a young person, this is the ideal company for a first job in a lovely, bright environment, and the way is paved for those who want to work, grow and experiment, which is not often the case in Italian companies. Admittedly, the distance from the major cities does not make it easy to find talent, especially when we are looking for technical people like electronics and software engineers. But for those who wish to work in the biomedical industry, Eurosets is the ideal company and this is confirmed by the large number of unsolicited applications we receive."



Alessio Degoli
Controlling & IT Manager

"I like numbers and this is why, after qualifying as an IT technician, I decided to study Economics without any clear idea of what I would do with it. And I like the Eurosets numbers even more. I arrived here on 1 October 2015, after working as a controller in transport and beauty companies. Contrary to what people might think, management control is closely linked to information technology, because it is important to know where to file data and then where to retrieve it from, but it is just as important to know how to transform that data into useful information for the company. Management control is a function that operational colleagues struggle to view positively; we can look like those who scrutinise other people's work, a kind of Big Brother, but this company still has a family-like approach where we work well together. And it is the constant, transparent and consistent flow of information and reports to the parent company that enables Eurosets to be very independent. I have worked in six different companies in the course of my career and this one continues to surprise me with its continual search for innovation and its long-term view, its ability to think not only about this year's profits but those in 5 or 10 years' time, always reinvesting everything. Since I have been here, I have never seen dividends being paid; everything is always reinvested in development."



Carlo Alberto Tassi
*Global Therapy & Portfolio
Development Manager
Area Manager North America*

"I am a Mirandola doctor and I can remember when I met Antonio Petralia in an operating theatre, way back in 2005. I was working for the leading biomedical cardiac surgery group (Dideco, which then became Sorin and LivaNova) and Petralia told me about a small company called Eurosets, which I did not know, with major plans in the cardiopulmonary field and suggested that I join it as a product specialist, with a two-fold aim: boost sales of the existing products and work with R&D to design new solutions that would increase the benefits for patients. I accepted the challenge. This led in 2007 to the creation of the first oxygenator Admiral, the first step in a great adventure in the cardiopulmonary field. It is now 17 years later, but they have flown by. From product specialist I became product manager, then marketing manager, then head of marketing and area manager for North America. I have now accepted a new challenge: to devote myself to the clinical part, as the regulations are becoming increasingly strategic for competing on the market and we are creating a structure with a truly cross-functional clinical department. Meanwhile, I have taken a degree in Economics and Management at the Sapienza University in Rome as my technical diploma was starting to limit me. One thing in Eurosets has never changed: its ability to listen to patients and their needs and to transform them into innovative solutions in terms of technology and services."



Barbara Mazzoli
Customer Service Manager

"I have been with the company for over twenty years; it has been my first and only experience of work since getting my Business Economics degree and at the time - it was 1998 - there were 20 white room workers and I was the fifth office worker. The then owner was looking for an administrator and a sales rep; he took me on to try me out in both roles and I realised that I liked the market more, especially because the company kept on growing and I could travel and get to know agents, distributors and customers. For ten years I was the Italy sales rep and learned the job in the field. Then, when my second child was born, travelling was becoming much harder and I asked to move to the customer service department, which was just being set up. I was a bit afraid of moving from an energetic life of travel to a sedentary life in the office; however, I still keep in touch with customers the world over and I have expanded my understanding of the company. I have seen Eurosets grow from 25 to 250 staff, from disposable products and devices for orthopaedics to the new launches for cardiac surgery, but what has never changed is the family spirit, the ability to face every challenge together, and not just market challenges but earthquakes and floods. Today there are seven of us in customer service, all women by choice."





WHY A NEW GREEN COMPANY



The firm Inhabito, which designed the new Eurosets facility on the Strada Statale 12 in Medolla, defines thus the combination of choices that led to the construction in record time, after the 2012 earthquake, of a facility in the biomedical district which is a model of innovation and biophilia.

Developed in an area of more than 50,000 m², the new factory contains over 12,000 m² of buildings and has a striking irregular shape, “which breaks up the horizontal lines of the Po valley countryside and crops and the vertical lines of the bell towers and imposes a new aesthetic that reflects this company’s innovative spirit, its ability to be born again after disasters more powerful and ambitious than before with the courage to look to the future with unprecedented reasoning,” say architects Luca Silvestri and Simone Toni who, with engineer Ilias Pierangeli, set up their architecture practice focused on bio-architecture and biophilic design just a few months before the earthquake.

The biophilic fingerprint of Inhabito has led not only to the internal courtyards being filled with vegetation (as a natural source of climate regulation) but also the roof of the office area, transformed into a garden with paths and meadows ensuring high absorption of the summer heat. It is a valuable open-air space for oxygenating the mind during breaks and for hosting social gatherings with colleagues and guests during the summer, Covid permitting.

Arriving from the main road into the enormous car park in front of the company, however, the eye is immediately struck by the outside of the building, entirely clad with wooden slats. This is an eco-sustainable and environmentally friendly brise-soleil, an external screen that stops the walls overheating, made from an innovative, natural but durable material made in Italy from wood flour and resin (its technical name is “plastic wood”).

Entering the atrium, you are struck by its size and colour; the display cases of the products that have marked Eurosets’ history stand like monuments, and you have a view of all the company’s different branches. The brightest room, however, is the canteen, which has a central position in the design, set in the greenery of the main courtyard: it is the element that brings together shift workers/manual workers and office workers and is intended to be a place for sharing and well-being, a place for discussion where the sense of belonging to a single organisation is rekindled.

Outside, an eco-sustainable spaceship with a clear but undefined shape; inside, a human body whose bright limbs emerge among the natural green.







The spaces are bright, glazing covers 40% of the vertical surfaces in the offices and 75% in the canteen area; the cold and warm colours of the floors alternate creating creative, distinct and energetic areas that are combined with the dominant vegetation around, in the middle and above the walls of the building.

The lighting is predominantly natural thanks to the presence of internal courtyards and light wells that illuminate meeting rooms and distribution areas, with structural glazing on the east side of the main courtyard. The sun lights but does not overheat the rooms thanks to the vegetation, designed to ensure the right ratio of shade to light.





CONSTRUCTION PHILOSOPHY

The three young architects stress that, “the entire design of the new site is aimed at minimising environmental impact and energy consumption, while bearing clearly in mind the client’s functional requirement to have a production layout that follows the flow from raw plastics to moulded parts to assembly in the clean room before primary and secondary packaging, and the desire to limit lorry and forklift movements to a single area of the factory. However, they left us plenty of freedom and we believe we have achieved the highest standards to ensure workers’ wellbeing and comfort.”





The two-storey structure refers to the human body and is faithful to Eurosets' production aim of treating people by making devices for the cardiocirculatory system: the central management block is the stomach, connected by a passage to the operational areas and also for breaks to the communal canteen area; it is the ganglion from where the ways leading to the warehouse and packaging block on the one hand and the production departments, white room and moulding department block, on the other, depart.





2021

Presentation of the new line of extracorporeal circulation oxygenators **Horizon**, **Remowell 2** and **Trilly 2**, on the 10th anniversary of the first oxygenator being presented.

2017

Opening of the new Branches in France, Belgium and Germany. Entry into the chronic ulcer treatment sector with **Waterlily**, a hypobaric wound treatment device.

2015

Market launch of the **ECMO** oxygenator for new-born patients.

2013

Entry into the Paediatric sector: **Trilly**, the first paediatric oxygenator for extracorporeal circulation in cardiac surgery and the paediatric **ECMO** module are presented on the market.

2011

Launch of **Remowell**, the first and only oxygenator in the world capable of reducing the quantity of white blood cells and lipid particles in blood. Launch of the first **ECMO** (Extra Corporeal Membrane Oxygenation) 14-day validated oxygenator.

2009

Market launch of **Admiral**, the first oxygenator for extracorporeal circulation entirely designed and made by Eurosets. Market launch of **Closed**, Eurosets' first closed system with collapsible venous reservoir.

2007

Market launch of the **Sherlock** arterial filter.

2005

Market launch of **Sprink**, the surgical wound suction and washing system.

2002

Gruppo Villa Maria S.p.A. acquires Eurosets. Market launch of **OrthoPAS**, a post-operative autotransfusion system for orthopaedics.

1998

Market introduction of **Cleanfield**, the first autotransfusion reservoir.

1995

Manufacture of the first **OEM line** products supplying components for cardiac surgery: venous bag.

1993

2020

Opening of the Branch in the UK. **ECMOLife** - Full market release. Launch of **Leonardo Trolley**.

2019

Pre-market presentation of **ECMOLife**, the portable ECMO system with magnetic levitation centrifugal pump at Lisbon EACTS conference.

2018

Opening of the Branch in China. Creation of the **ECLS product line**: presentation of **Landing ECMO** and **CO2Reset**.

2016

Opening of the new **12,500 m² eco-sustainable facility**.

2014

Market launch of **Skipper AF Plus** and the 14-day validated **ECMO circuit**.

2012

The first **Landing monitoring system**, which can adapt oxygen transport to patients' metabolism, is presented on the market.

2010

Launch of **Mini Sherlock**, a paediatric arterial filter.

2008

Market launch of **Skipper**, a single-chamber oxygenator. Market launch of four new products in the Chest Drainage line: **Venice**, **Venice Pas**, **Rome**, **Rome Pas**.

2006

Opening of the new **5000 m² production facility**. Market launch of the **A.L.ONE** (Artificial Lung One) oxygenating module.

2004

Market launch of the new **vacuum generator** for **OrthoPAS**, the post-operative autotransfusion system for orthopaedics.

2000

Market launch of **CardioPAS**, the post-operative autotransfusion system for cardiac surgery.

1996

Market launch of **Vision**, the heat exchanger for cardioplegia.

1994

Development of the first Eurosets branded filter, **Goccia filter**, to reduce microaggregates during blood transfusions.

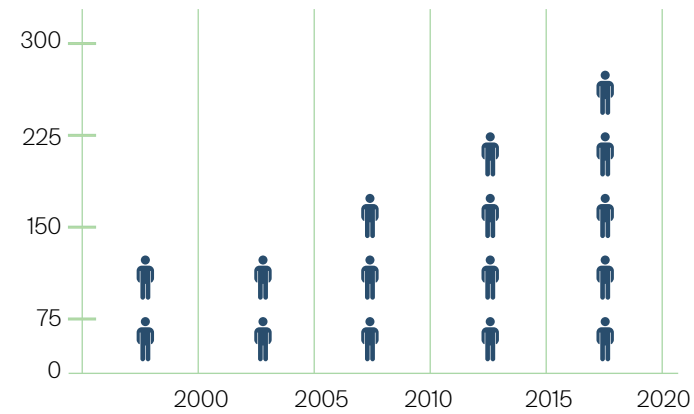
1991

Creation of **Eurosets Srl**, a company producing components and semi-finished products for third parties in the heart of the Italian biomedical sector, in Medolla (MO).

OUR JOURNEY TOWARDS SUSTAINABILITY

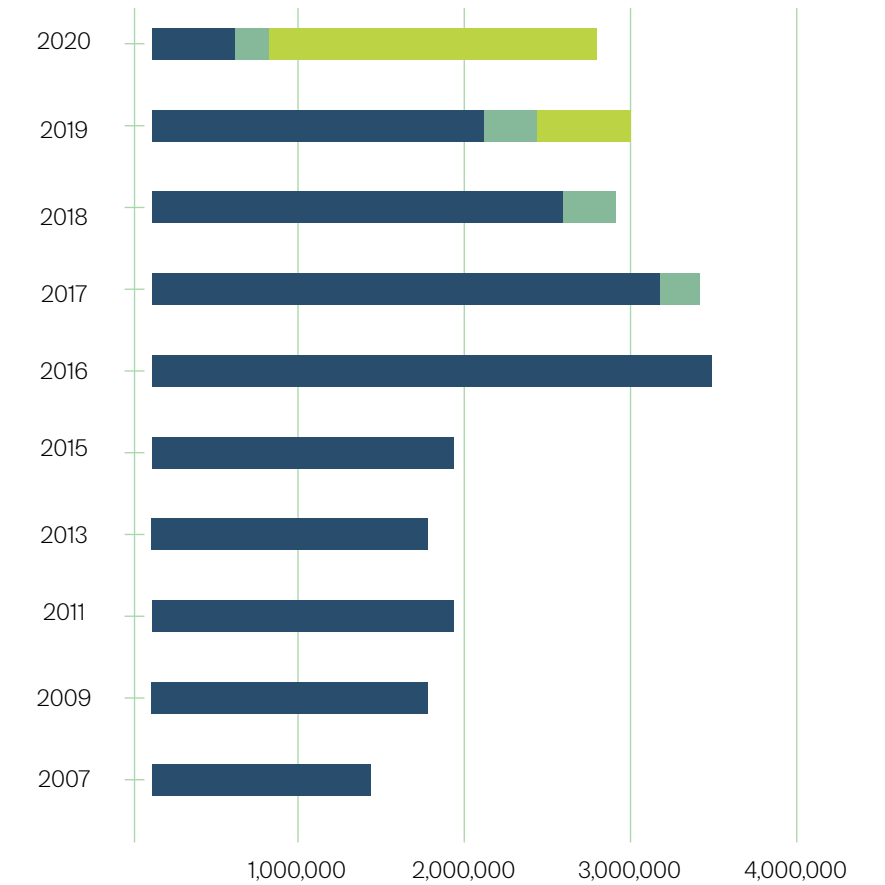


WORKFORCE

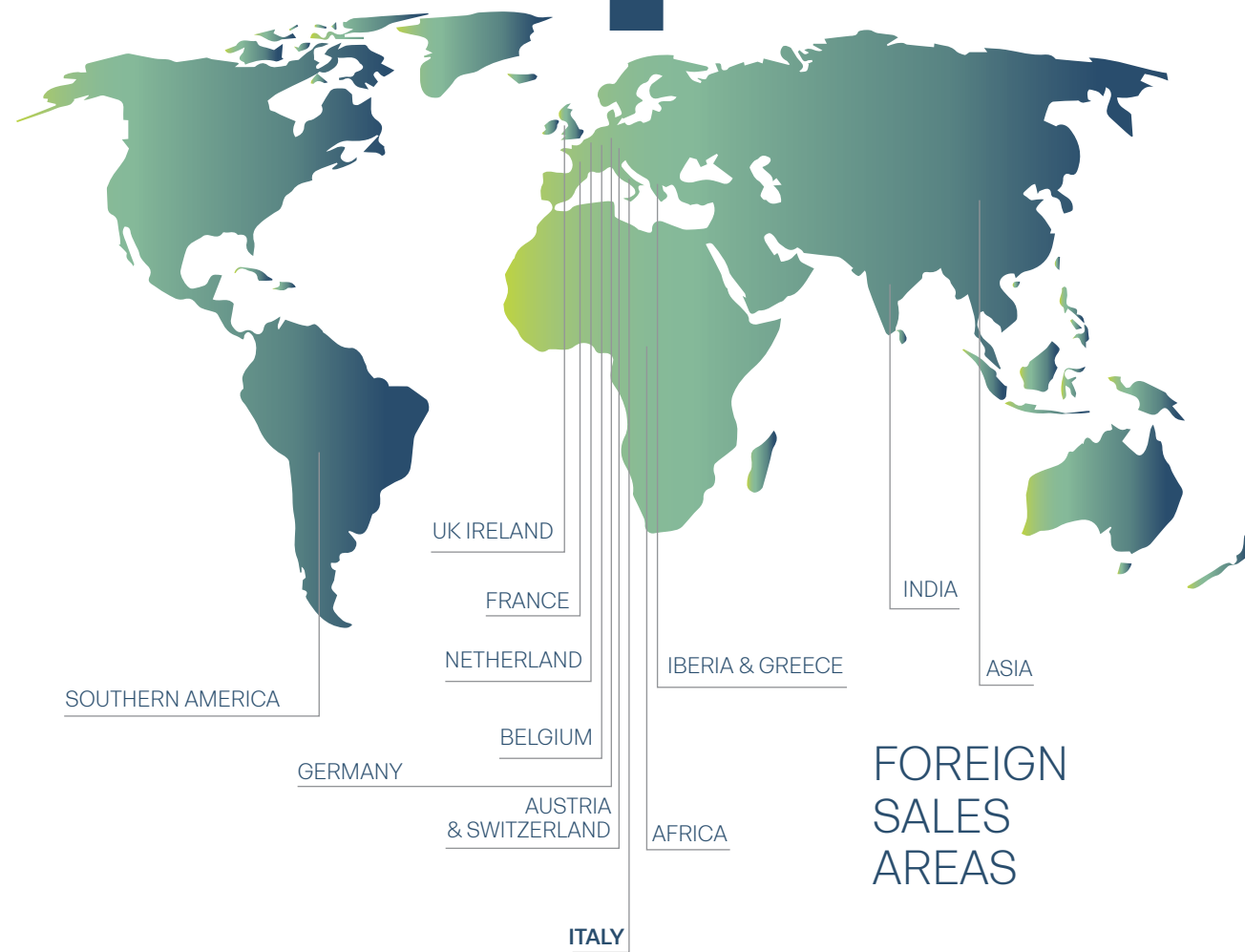
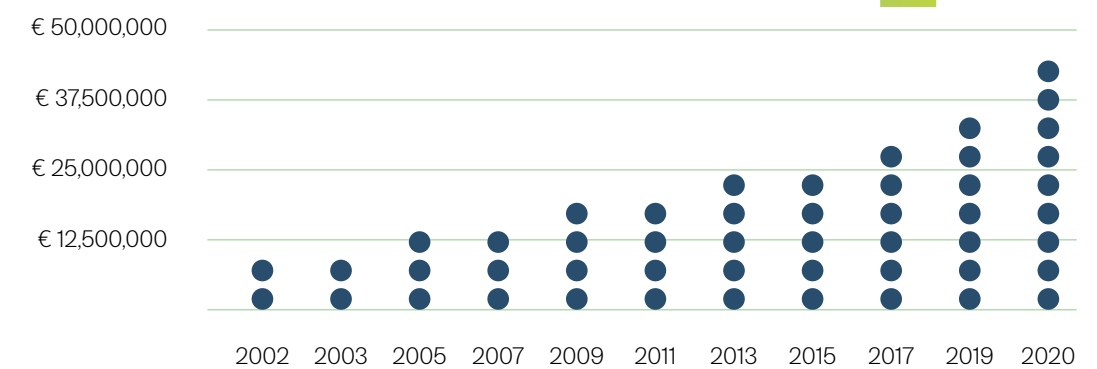


ENERGY

- Self-generated energy with generator kWh
- Self-generated energy photovoltaic kWh
- Energy purchased kWh



TURNOVER





Monica Bottura

Custom Pack Production Coordinator



see interview 

She was 17 years old when she stepped into the biomedical industry; it was 1996. She had trained as a secretary but decided to do something completely different: "I prefer to work knowing that here, in this company, in this district, we are saving people's lives," she says. And even now, after 31 years working in the biomedical industry, she is as passionate about it as on the first day.

Do you like working in the white room and at Eurosets?

I love it; I have a great job and this company is exceptional. The managers have helped me grow a lot throughout these years; they know how to recognise and give you the responsibilities you deserve and which will help you grow; not all do that. Today, I am the head of "custom packs" for cardiac surgery and it is extremely satisfying to come to work each day and know that my work is saving human lives; I think it is the best thing in the world.

Is it the type of work you imagined doing when you were little?

This is definitely not how I imagined my future when I was little; I went to secretarial college because I thought an office job would be good; however, when I started working in this sector when I was 17 it was an eye-opener. I learned the profession gradually on the job and it is satisfying to work at Eurosets each day, every day a little more.

Only women work in the white room: why is that?

Because men do not have the same manual dexterity as women; they have large hands, which are not made for making tiny parts. In the department, I have one male colleague who cuts the tubes and picks up heavy weights; otherwise, we are all women here and we work well together.

Why can robots not do this work?

Custom packs are created based on each hospital's specifications; we tailor-make them and changes are often made mid-process. This is a small tailor's shop that creates stitched products tailor-made for hospitals. Each request is made exactly according to their template.

What do you think the white room will look like in 10 or 20 years' time?

I don't know what it will look like, but I hope I am still here at Eurosets with them! Because I really like working here and I hope that the company will be even bigger and stronger, because it really deserves it; they are great people and it is a pleasure to work here.

Mario Calzolari

Operations Director



see interview

A mechanical engineer by training and avid amateur musician, he has worked in the biomedical industry for 12 years after initially working in the Emilian motor valley. If he has a complaint today, it is that he did not study management engineering, “because the added value of my role is the ability to manage people. When I arrived there were 90 of us, now there are almost 250 and I have hired almost all of them. The factory at that time was 5000 m²; today it is more than double that and things are getting tight,” he says.

How did a mechanical engineer end up in the biomedical sector?

I came to Eurosets almost by chance. It was 1 April 2009 and I thought it might be a joke when they hired me, because I had responded to an online advert and I arrived at a company near my home that I wasn't even aware of. The company was already full to bursting; there wasn't even room for an office for me: we actually had to use a windowless archive room and I was there for some time and was teased because of it. Soon after, we began to rent external warehouses.

How has Eurosets changed over the years?

The company has changed so much. When I arrived our turnover was 10 million euros and we had 90 staff; now we are close to 45 million with three times as many staff. Sometimes friends ask me how I come to be still working in the same company after so many years, but I tell them that during these 12 years I have worked in many different companies, because as well as growing, we at Eurosets have faced many disasters. First there was the earthquake when we were dispersed among many offices in Bastiglia, Medolla and Mirandola. I was at Bastiglia where we set up the main white room to produce the oxygenators, the core cardiopulmonary business, and for four years from August 2012 I was at Bastiglia and found myself in the middle of a flood. Since 4 April 2016 we have been back here at the old site with a new 12,500 m² facility and in five years we have filled every space and even here things are starting to get tight, so we are planning another expansion and therefore, to recruit new staff...

What exactly does an Operations Director do?

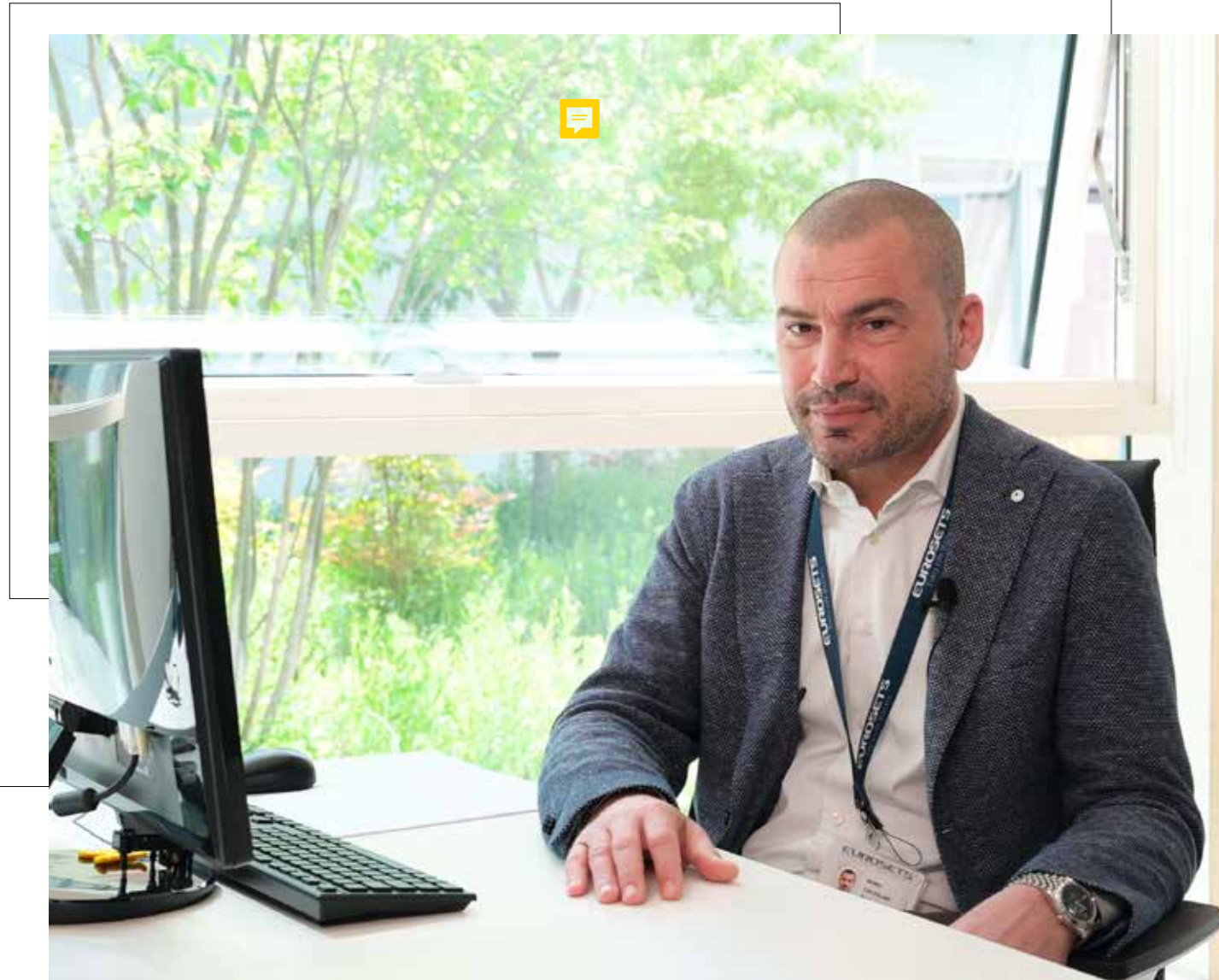
To begin with, my work was coordinating purchasing and production, then processes and costs; now I also deal with the operational part linked to consultancy on projects, investments and management control. In effect, I work with everyone and interpersonal relations remain the most complex but most rewarding aspect of my job.

So, you are a mechanical engineer who deals more with people than with technology?

I actually selected most of the production staff and am responsible for their work. It is a stimulating role that can only be done by someone who knows how to be with people, to talk to them, listen to them and value them.

How do you imagine the Eurosets of the future?

It is not easy to imagine, because this company can always surprise you and do something different from its everyday routine. I imagine it working in more sectors than it does today; cardiopulmonary will not be abandoned, but with all the challenges that we are currently facing, I imagine there will be new products, a much bigger plant where we will need bikes to get around and maybe Eurosets will no longer be only here in Medolla. In short... I expect another great adventure.



Katia Vescovini

RA & QA Manager



see interview 

The niece of Pietro Vescovini who laid the foundations of Eurosets in 1991, Katia joined her uncle's firm in 1996 on an internship as part of her Chemistry and Pharmaceutical Technologies degree with the task of getting to grips with CE marking regulations. "I knew nothing about it, I started studying, studying, studying," says the co-author of all the documentation that has accompanied the Eurosets products around the world for 30 years and of all the company certifications.



Why is the RA/QA role so important in the biomedical industry?

Medical devices belong to the group of products that are regulated in every country and, in order to sell them, we need to demonstrate that we comply with these standards; in particular, in Europe, we have the CE mark that we are all familiar with, because we see it on all the products that come into our homes. In the biomedical industry, we need to comply with specific trials, tests and safety and performance requirements that are controlled not only by the company but also by external organisations to ensure their conformity and safety and therefore the health of people and the environment.

How long have you been doing this at Eurosets?

I came here immediately after graduating, when CE certification was still almost unknown and the company was so small that nobody knew what we needed to do to certify products. The then postholder told me to find out what we needed to do; I knew nothing about standards and certifications, so I started studying and I haven't stopped since. I started on my own and very gradually we got the first products certified, then the company as well; the team expanded and we have now reached the point where the complexity that we are managing is such that there are more than 20 of us working on regulatory matters and quality and laboratory control.

Why is your work so complicated?

Product certification takes a huge amount of time, sometimes longer than certification of the design itself. There are countries like Japan and China with such stringent requirements that it takes years, not months, to submit all the documentation and achieve registration. In China, it took us more than four years to register our first product, in Japan almost three years, and in the USA between one and two years.

And what do you control in the laboratories?

In our laboratories, we control the quality of the product coming out of the white room, lot by lot, to certify that it is clean and sterilised from bacterial and microbiological contamination. We also support the R&D division in checking the performance of the new products that are being developed, to check that they are effective and work correctly. We also work with production to ensure the quality of the incoming and outgoing materials. In short, our work covers all the company departments starting from the raw materials and finishing with sales, because it is we who guarantee that the product can be marketed in countries across the world.



Nicola Ghelli

**Technical Director R&D
Cardiopulmonary Manager**

A chemical engineer, he is the father of the Eurosets oxygenators and his age is coupled with a lively, childlike spirit that is never tired of innovating and imagining the future of the biomedical industry. Hired in 1985 by Mario Veronesi, the father of the district, to work at Dideco (and later Sorin-Snia, Pfizer and Cardionova), he joined Eurosets – an engineering newco set up ad-hoc and then integrated - in 2005 with one aim: to create a membrane oxygenator with the smallest possible area of contact with blood, the lowest priming and maximum biocompatibility: “We did it,” he says smiling.



see interview 

And what happened after the oxygenator?

Since the first Eurosets oxygenator, called Alone, Artificial Lung One, we have always concentrated, until now, on disposable products: oxygenators, exchangers, reservoirs, tubes. However, we also started making ECMO products, as the oxygenating module is very similar with just a different fibre (polymethylpentene). And in around 2010 or 2011 we launched the Landing, a multi-parameter system with probes to measure blood parameters on the arterial and venous sides, to provide a set of information to users on how much oxygen patients connected to an oxygenator consume. It was the first step in moving from a core business of disposable products to multipurpose products.

The CO2Reset came next: how did it come about?

Hospitals were asking for products to remove CO2; we were supplying an oxygenating module for patients with respiratory hypercapnia and we said to ourselves: why shouldn't we also make the electromedical part that manages this type of perfusion? As our R&D department did not have the technical hardware and software knowledge (we knew about plastics and surface treatments), we relied on external suppliers and thus produced the CO2Reset, which is made up of electro-medical equipment, and the entire propulsion system to move the blood and the control systems and disposable circuits.

Was it a small step to ECMOLife?

ECMOLife is something different again. We realised that ECMO products and circuits treated with phosphorylcholine were in great demand in the market but were used as replacements; to improve market penetration and to avoid the risk that one day our competitors might stop giving us the pump used for the propulsion system, we tried to make the pulsing system to move the blood in extracorporeal circulation ourselves. There are four types of pump on the market, the most advanced being the magnetic levitation one, so we decided to raise the bar and aim at a new-generation pump and, as the patent of the US company that had invented the levitation pump was due to expire in two years' time, we set to work. As with the CO2Reset, we relied on external suppliers for the control hardware and software but developed all the mechanical and disposable parts in-house. It was a brave choice that last year led us to make our debut with a top-of-the-range product.

So, the Eurosets of the future will no longer be synonymous with disposable devices?

This has been the biggest change, moving away from only disposable products - which remain the core business - to include equipment so that we can offer complete products to our customers: not only the coffee machine capsules but the machine with all the top requirements.

Is it better to work for a large multinational or for Eurosets?

I had the good fortune of starting to work with Dr Veronesi in 1985 at Dideco, at the time a start-up with a very local managerial approach; a year later, the firm was sold to the multinational Pfizer which had a very different set-up. I stayed with them for 20 years and was fortunate enough to see the company continually grow and change. We experimented with the expanded Snia and Fiat shareholders and then the US management system, which is useful for managing processes from the design phase to the more delicate aspects of the technical solution and finally to the application to patients. After 20 years, I accepted Sansavini's challenge to produce a new product family for Eurosets from scratch, and I can confirm today that I did the right thing when I accepted the challenge. When I arrived here I felt I had gone back to the early days at Dideco. In multinationals, corporate aims are often intertwined with personal career objectives and this can hinder the continuous improvement of products. More effective solutions are not pushed if they might be to the detriment of one's career. Whereas at Eurosets, a different spirit has been maintained that I hope it will manage to keep it over time, which is managerial but very flexible with clear objectives recognised by everyone.

Lisa Ragazzini

Warehouse Coordinator



see interview 

Whoever thinks that working in a warehouse is a job for men will have to rethink when faced with the blonde hair, gentle gaze and sweet smile of this woman who, after decades of service in the field, has won for herself the role of leading the company's huge logistical structure, rebuilt in 2016 after the 2012 earthquake had made the old facility unusable.

What is your history at Eurosets?

I have worked for this company since 1989, when it was not even called Eurosets (a name that dates back to 1991). I started in the white room and then, a few years later, I moved to the warehouse and developed my career with the warehouse because the activity has changed a lot over the years. To begin with, I was preparing production orders and shipments, I was doing quality control and looking after practically everything on my own. Over the years, the warehouse has got bigger and today I manage and organise everything related to preparing production orders for the white room and for contract work.

And do you like working in a warehouse?

I really like this job, I have always liked it. I've been with Eurosets for 32 years and I have done practically everything. Today, my task is managerial and organisational with a team of 11 people, six of whom are warehouse staff who work in two shifts, colleagues in the logistics and shipment department, a driver and a storage worker.



How come this warehouse looks so good?

As you can see, it is not the usual dark warehouse that companies usually have; it is lovely, very clean with lots of light, the amount of space has almost doubled since the earthquake, today there are over 3600 pallet spaces. And then, you come in here and are part of a team; we are not just colleagues; we are friends, almost a family. Coming to work is a pleasure, not just a duty.

Why, as in the white room, do we see only women here?

When we started there were only women; now we also have 3 or 4 men, but the warehouse was created by us women. The reason is linked to the fact that this work requires deftness, intuition, order, in short it is known that we women are able to multi-task... (said with a mocking smile).



TRAINING TEACHING DEVELOPMENT INNOVATION

Science and knowledge can be found in every corner of the Eurosets “citadel” and not only because this is required for quality certification, but because shadowing and cross-fertilisation are the secret ingredients of a team that has doubled in size in the last five years.

When it started thirty years ago, Eurosets employed 11 people. Today it employs 250, two-thirds of whom have joined since the dramatic year of the earthquake in 2012. The hardest challenges led to an explosion of contagious energy arising from the desire not to be defeated. The emotional and empathetic involvement of the new team members is guided by more senior “mentors”. Organisational culture and mutual trust are the foundation stones of the working atmosphere of deep satisfaction and self-realisation that is felt in the company.

In-house training is the vital ingredient that enables the entire Eurosets team to keep up with the very fast rate of company innovation. Until now, its small size has helped colleagues to discuss matters on a daily basis with each other.





EMILIO REYNERI WORK SOCIOLOGIST

EMERITUS PROFESSOR MILAN BICOCCA UNIVERSITY

“There is not yet adequate literature on how to improve work in the medical industry, from the point of view of space and ergonomics as well as organisation, in the same way as has happened over the decades in mechanical engineering and car-making factories, but given the importance that the sector is destined to have for the growth and sustainability of all economies, I think that it is important that sociologists and psychologists set to work on it seriously.” The words of Emilio Reyneri, an Italian researcher in the sociology of work who is well known and valued by the scientific community and by students, because entire generations have been trained using his book on the sociology of the labour market.

“I have never visited Eurosets and the other biomedical district companies personally as I am no longer young enough to do field research,” adds Reyneri brushing aside his 78 years, “but the solutions they are adopting are recipes that were widespread in the Olivetti-style factories of over half a century ago. The concept of large windows instead of walls and of natural light to see the outside world and nature from inside, between departments and offices, is essential for workers’ wellbeing and to reduce the sense of alienation. Factories should not be isolated from their settings. Reducing the separation between the facility and the outside world is a key objective whatever the sector. Basically, smart working has merely taken to an extreme this concept of pulling down the walls between work and personal life.”

Of course, isolation is necessary for those working in white rooms and sterile environments, and the sense of alienation is exacerbated by the need to work wearing lab coats, headphones and masks. “White room work is definitely tiring and draining, even if it is not considered and listed as such,” he adds. “And I think that having shorter shifts and frequent breaks is a good recipe for alleviating the situation. The colours of rooms help; having music on all the time in the background also provides creative stimulus and is relaxing.”

What a work sociologist appreciates most from looking at the plans and how space is organised in a company like Eurosets is the size and richness of indoor and outdoor communal spaces, even beyond the Obeya room, “because the deep sense of working together in person (and not from home) comes from the sharing of ideas and thoughts outside the organisation chart and conference calls,” adds Reyneri. “The biggest corporate successes come out of informal spaces, by the coffee machine, in the gym, at lunch. Formal procedures hinder creative flow. This is the real disadvantage of smart working. Here too, in our department,” he finishes, talking about his office at Milan Bicocca University, the former Pirelli factory, “it is easier to come up with research projects during the lunch break than during scheduled meetings.”

OBEYA^{ROOM}

To celebrate its 30th birthday, Eurosets has treated itself to a brand-new **Obeya room**: the “**big room**” (this is the literal meaning of the Japanese word) on the ground floor is actually anything but big but it has a big purpose: to bring together in one place people with cross-functional roles to develop projects from concept to fulfilment, constantly monitoring progress. It is a “**war room**” where product, rather than military, strategies can be discussed, using maps and lines of attack. Charts and visual diagrams that describe **project timetables, progress, problems encountered and countermeasures used** are a key element of **Eurosets’ Obeya room**, opened last January and equipped with an entire wall with large scrolling whiteboards used to keep track of the progress of various projects, ten high, red, fairly uncomfortable, stools to ensure that meetings do not last too long, and a long white table in front of the whiteboard wall. The aim is to speed up and comply with the timetables of new projects, encourage vision-sharing and **cross-functional knowledge** and optimise professional relationships between different departments. Thus, when developing a new device, at least once a week - more often almost every day - members of an unprecedented mixed team meet in the **Obeya room**: laboratory researcher, moulding technician, key marketing and control or human resources people. There are no rules about roles and who should speak, only the commitment to exchange ideas and information quickly (each meeting lasts 10 to 15 minutes at most) and for everyone to keep track of their own part of the project, with critical points, possible solutions and next steps. Entering the **Obeya room**, you immediately get a clear and full overview of a project by simply glancing at diagrams, numbers, charts and drawings: a concept developed - for a change - by the Japanese in Toyota, the proponents of “lean management”, and introduced to **Eurosets** after a visit by the CEO to a nearby Bologna mechanical engineering multinational, which over the course of a year, thanks to the “big room” of cross-functional teams, tripled the number of new projects developed and halved the development time.

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The **Eurosets Obeya room** is dedicated to the memory of a key figure in the company’s current success, **Gianni Piccinelli**. He was the leading technician on the heart-lung machine, used in the eighties at Maria Cecilia Hospital in Cotignola (the first hospital belonging to the current controlling group **GVM Care & Research**) for the first open-heart operations with internationally renowned heart surgeons. Piccinelli then became CEO and shortly afterwards Chairman of GVM Care & Research’s Maria Eleonora Hospital in Palermo. Piccinelli was also on Eurosets’ Board of Directors and he deserves recognition for having contributed, through his great experience and marked and unusual common sense, to defining some manufacturing specifications for extracorporeal circulation devices for use in cardiac surgery.



Giovanni Piccinelli

Quando si presenta un problema...

OBEYA ROOM

Stanza delle idee

...un nuovo tipo di lavoro di squadra diventa la soluzione.

Una stanza in cui confrontare idee... e trovare soluzioni in un tempo limitato.

In cui si ritrovano persone di diversi settori...

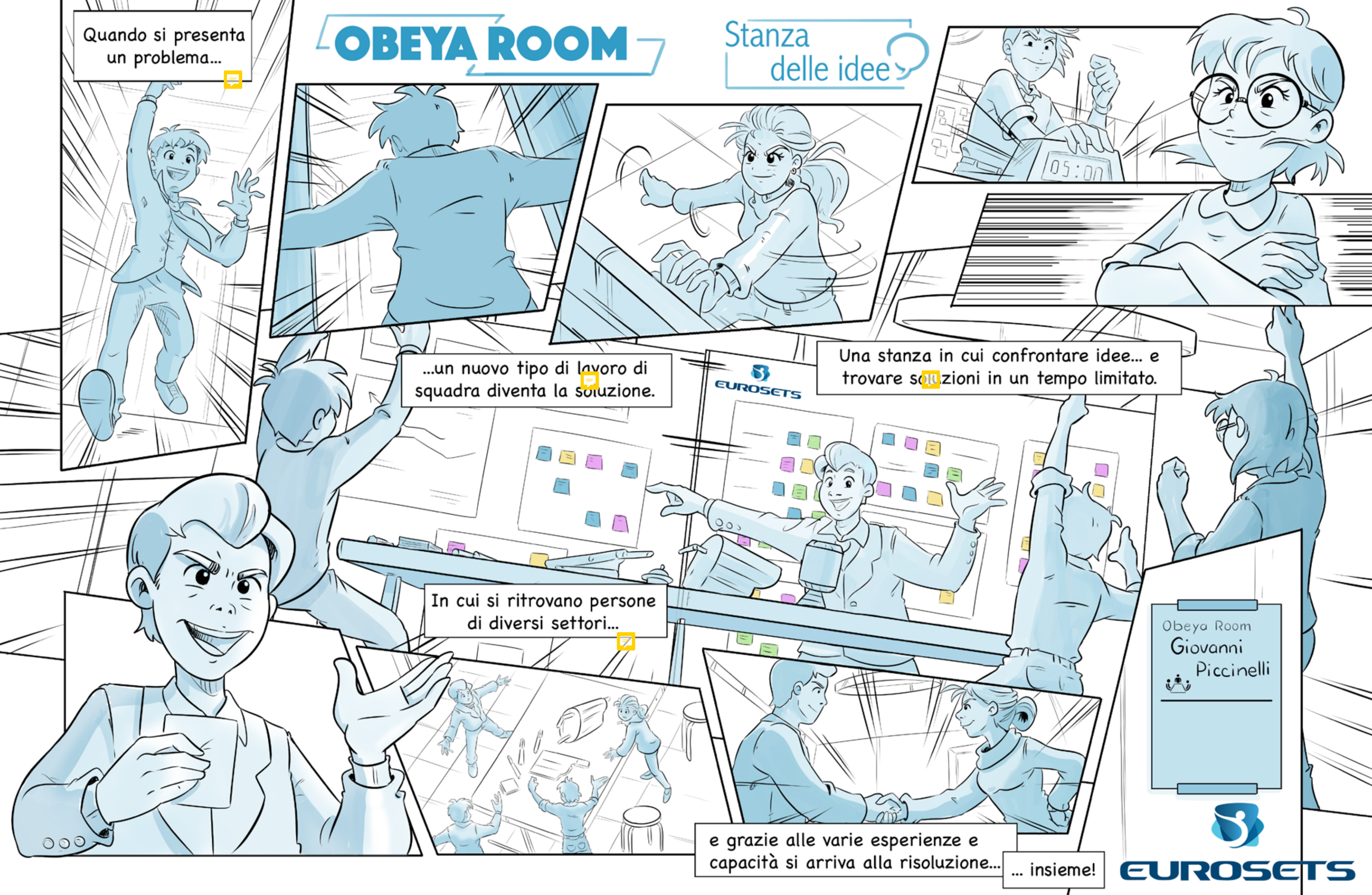
e grazie alle varie esperienze e capacità si arriva alla risoluzione...

... insieme!

Obeya Room
Giovanni
Piccinelli



EUROSETS



INNOVATIVE PROBLEM SOLVING OBEYAROOM

Discuss. This is the mantra that has taken shape in the Obeya Room to speed up internal decision-making and strategic processes, encouraging team playing, but it is also the verb that enabled the leading pioneers of the district to discern doctors' and hospitals' requirements and transform them into products on a large scale. Even today at Eurosets, discussion creates the ability to innovate products and technologies, thanks to the work teams of doctors, nurses and technicians from across the world. Out of discussions and constant cross-fertilisation comes the ability to transform, in just a few months, newly qualified, inexperienced staff, into company men and women, virtuoso players in the same orchestra, to use a metaphor that is heard spontaneously in corridors and departments, where ambient music plays constantly in the background creating a relaxing and harmonious atmosphere.

The HR Director, Silvia Riva, who has been with the company since October 2018, recounts how in barely three years the mood has changed in Eurosets. "The really rapid growth of recent years, definitely helped by the digital visibility that we have acquired online, is increasing interest exponentially and the number of spontaneous applications that arrive on my desk keeps on rising. The fact that we have remained a 100% Italian company, rooted in the local area, where human relations are paramount, and where our small size allows not only speedy decision-making and action but also the possibility of seeing entire projects developed from A to Z, makes us ever more appealing, including to multinationals." In Eurosets, you are never a number, you are always a person with first name and surname; you are even asked to become an entrepreneur yourself, in the same way as the father of the district Mario Veronesi taught his own employees and friends, because only in this way does a company grow and seed projects, new start-ups and cross-fertilisation in the local area.

Training is therefore continuous at Eurosets, not only because this is required for company certifications with regulated and traceable procedures formalising the learning journey of all resources individually from the day they join the staff, but also because if there is one way to attract young

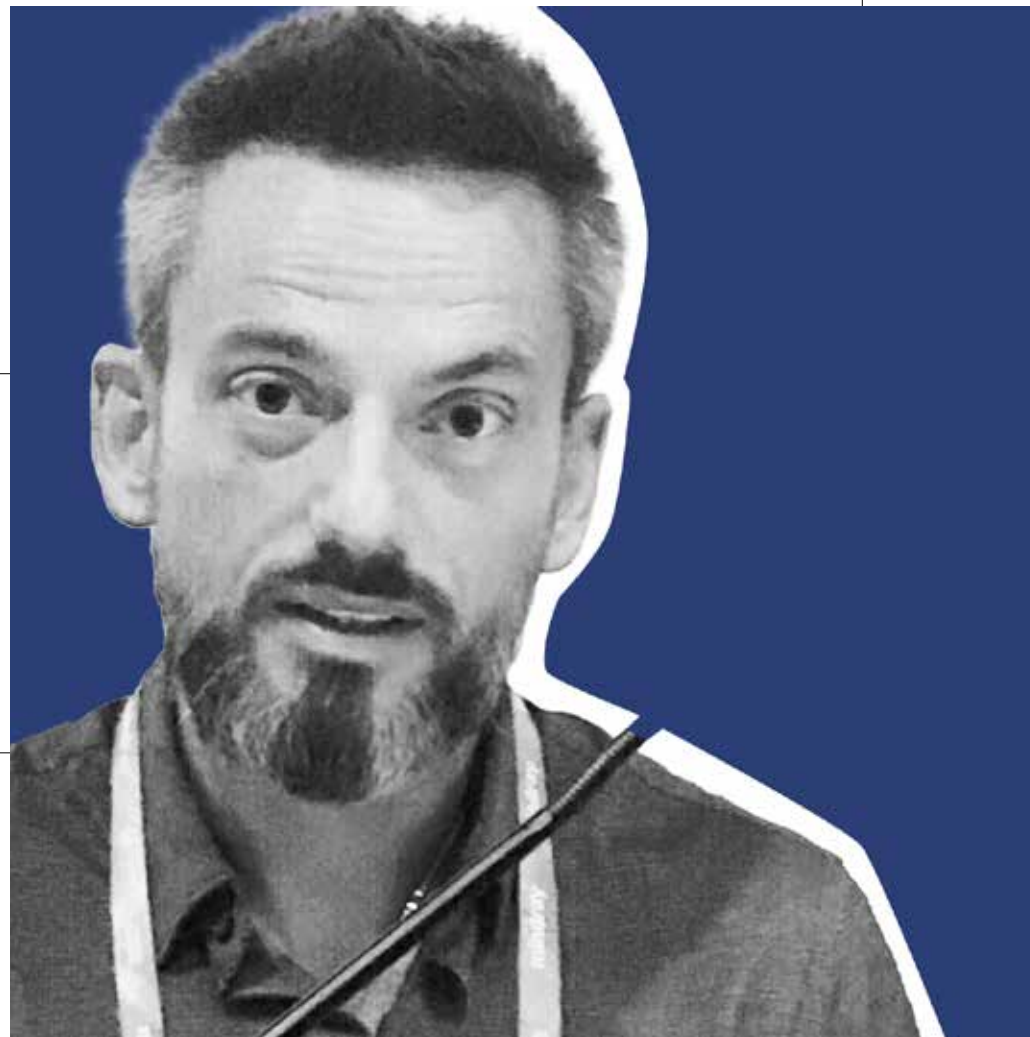
people and retain them it is the possibility of constantly learning. All newly hired staff start with an induction training process as soon as they set foot in the factory, which lets them work with all section managers during their first three months. They then move onto technical training courses, with mentoring from more senior colleagues and external trainers. The TPM, the Mirandola Technopole (dedicated to Mario Veronesi), an applied research laboratory, training school and district incubator, is acquiring an increasingly important role. It was set up in 2012 after the earthquake by the Region and is a means for companies to access all the skills of the Emilia-Romagna High-Technology Network and provides a link to national and international networks.

The Biomedical ITS (Istituto Tecnico Superiore - Higher Technical Institute) in the Mirandola Technopole offers essential specialist post-qualification preparation on "Life technologies" to support the district's development. Eurosets works on a permanent basis with the Institute and the TPM; it hosts a couple of post-graduates each cycle, most of whom it then hires. However, there seems to be an unfulfilled need for electronic engineers. The company is always desperate to find them because competition is strong not only among other biomedical players but in the neighbouring motor, packaging and oil hydraulics districts.

Discussion and training do not, however, remain within the walls of the facility at 143, Strada Statale 12, but are extended without limits to all global biomedical specialists, across the entire biomedical world. The leap from contract manufacturer of disposable devices to manufacturer of multipurpose complex solutions and the constant innovation of the last 13 years are the result of a formal collaborative decision, which is not at all the norm in the industry: this was the decision to set up permanent boards, made up of clinicians, hospital technicians and nurses who test the solutions, inspire ideas, suggest improvements and, in return, have access to resources and technologies for their own research. Currently, Eurosets has two active committees: the ECMO European Advisory Board (EEAB) made up of scientists and hospital doctors from across Europe looking at the treatment of cardiorespiratory diseases and extracorporeal oxygenation projects; and the Perfusion Advisory Board, which brings together Italian and international perfusionists and circulatory physiopathology technicians. "This idea launched by Eurosets five years ago to set up boards of external clinical specialists to support company activities was outstanding: we doctors are always completely at liberty to research what interests us, without their setting any conditions," explains Mirko Belliato, specialist consultant in Anaesthesiology and Resuscitation at the Policlinico San Matteo in Pavia, the chair of the EEAB.

THE VOICE OF INTERNATIONAL HEALTHCARE PROFESSIONALS

Director of the Neuro-ICU at the Erasmus Hospital (Belgium) and Professor of Emergency Medicine at the Free University of Brussels



Born in Avellino, Belgian by adoption. After taking his medical degree in Naples and moving to Belgium to specialise in internal medicine, he remained in the Belgian capital to work at the Erasmus Hospital, studying for a PhD in Critical Care at the Free University of Brussels, where he teaches today, and adding roles in international associations such as Euroneuro (European Society of Anaesthesiology and Intensive Care) and ISICEM (International Symposium on Intensive Care and Emergency Medicine).

“What makes the difference is not just products, but people. I happen to be Italian, even though I have lived in Belgium since I was 24, but working with Eurosets is always a win-win relationship.” Fabio Silvio Taccone has taken ten minutes on the fly between an emergency in Resuscitation and another at the Erasmus University Hospital in Brussels for a telephone interview and immediately explains his point of view: “Talking about Eurosets, with which I have been working continually for five years, is not the same as talking about a supplier, but rather about a company that I feel a part of, involved with and proud of: since 2016 I have been working with the research group on ECMO with representatives from five other hospitals; I have seen the creation of products like CO2Reset and ECMOLife; we test them, improve them, add functionality; I am not saying that I feel they are ours, but we definitely feel that we had a part to play in these machines.”

So, if Eurosets' products are successful, is that partly down to you?

It is down to the fact that Eurosets was smart enough and foresighted enough to set up a research group of international doctors specialising in extracorporeal circulation, which enables them to gather ideas and develop collaborative partnerships and enables us clinicians to do research and experiments with great freedom. Unlike other biomedical industries that I am connected with as an advisor, at Eurosets I don't feel that I am simply a consultant, I work with the entire company and contribute actively to developing equipment.

What are the advantages of such a selective relationship?

Apart from being able to study and suggest more effective solutions for treatments and be the first to use some innovative machines, like CO2Reset, the only one in the world capable of removing carbon dioxide from blood, we can count on great support in our hospitals when needed. During the Covid emergency, especially during the first wave, for example, we were short of machines and the company helped us a lot.

Did you contribute anything to the distinctive design of the machine?

The aesthetic side is always interesting but only if it is combined with quality. Whether devices like CO2Reset or ECMOLife are also good to look at is secondary; the modern design with different colours and style from old machines helps, but a machine is not chosen because of its appearance or colour, but because it has features that the other products available do not have. This is why we have always pushed Eurosets to invest; they need to provide that little extra which is not just the aesthetic appearance, but is value added... like the electromagnetic levitation pump or the double pump.

Have you any anecdote that will help us understand your relationship with Eurosets?

I can tell you that you can discuss cardiac surgery with people from Eurosets at conferences and then immediately after talk about motors over a beer or at a restaurant. I remember a Euroecmo meeting at Maastricht, near my home. After dinner and scientific discussions, the evening went on till 4 in the morning in vests and T-shirts. I don't think any of us can remember exactly what we talked about afterwards!

International heart surgeon, Director of the Cardiovascular and Cardiac Surgery Unit at the Fondazione Policlinico Gemelli in Rome, Professor of Cardiac Surgery at the Università Cattolica del Sacro Cuore in Rome and chair of the Italian non-profit organisation “Dona la vita con il cuore” (Donate life with the heart). After a degree in Medicine and Surgery and post-graduate specialisation in Cardiac Surgery at Siena, he worked in France at Caen University Hospital from 1993 to 2012, when he returned to Italy.

Twenty years of experience abroad and thirty of work in cardiac surgery departments have given Massimo Massetti a more objective view than other Italians of the role that Eurosets plays in hospital wards. And when asked what makes this small Modena company stand out from its competitors, he answered without the slightest hesitation: “Size will count in terms of the company having less capacity than multinationals for investment in research and development and for hiring multidisciplinary staff, but Eurosets makes up for this with its great attitude of working closely with us clinicians and its employees’ extraordinary sense of belonging that makes them motivated and dynamic. It is as good as the large businesses for reliability, soundness and technologies, as a company and in terms of its products.

How long have you been working with Eurosets?

My first contacts date back to well before I returned to Italy in 2012, in other words to the twenty years I spent working in France after graduating (at Caen University Hospital, editor’s note). I got to know Eurosets when it was starting to take its first steps to penetrate the European markets and my opinion on the group’s soundness and reliability and on the quality and safety of its products has never stopped growing over the years.

Have you ever visited the facility in the Mirandola district?

Yes, I’ve been there several times and I really like the company’s quality and control systems. The factory and its organisation reflect the technologies that we then use to treat patients; it invests a huge amount in innovation, in miniaturised solutions and in biocompatible products. I would say that the innovative spirit that you breathe at Medolla also reaches hospitals through its devices, which are excellent in terms of both technology and performance.

Eurosets has always invested a lot in the design of its products. Does that make the difference for those who then use them?

The real difference lies in the ergonomics and ease of use of Eurosets’ products. The aesthetic impact for us cardiologists and heart surgeons who are often required to work in emergency situations counts for little compared to the effectiveness and performance of the products. Eurosets’ products stand out for their ergonomics and ease of use (in the miniaturised portable version of ECMOLife: it is that which is useful for doctors and patients to respond quickly, to make medicine ever more local and to deal with the intersection of sustainability and quality of treatment).



ALILENY PÉREZ ALEMÁN
President of the Latin-American
Perfusion Association ALAP



With a first degree in Perfusion Technologies from the Central University of Venezuela, post-graduate specialisation in Paediatric Perfusion at Harvard and a Master's in Bioethics from the Università Cattolica del Sacro Cuore, Alileny Pérez Alemán has always been involved with perfusion, cardiac surgery and medical devices and provides professional training and coaching throughout Central and South America.

"I first came across Eurosets more than 12 years ago. During the EACTS European Conference in Barcelona, Spain, I went up to the Eurosets stand and introduced myself as a perfusionist from Venezuela and their Latin America manager looked after me very attentively; he presented all the extracorporeal circulation line products, oxygenators, tubes and cannulae. The fruitful relationship that we have kept up started then, from the combination of excellent products and the exceptionally professional attention of its specialists." Thus Alileny Pérez Alemán, president of the Latin-American Perfusion Association ALAP, a position that keeps her constantly in touch with all the perfusionists in the region. "And I also often receive positive feedback from colleagues on the use of Eurosets devices in clinical activities," she adds.

Why choose Eurosets' products?

Because we perfusionists like the quick and effective service as well as the very high quality standards. Eurosets provides wonderful support for its devices: clear and detailed product information, precise instructions for use and extensive up-to-date literature to support scientific tests. And over the years, I have also had occasion to appreciate the continual progress that has been made in oxygenator design, including the integrated arterial filter, changes in the ergonomics of the reservoir that make it easier for the blood to flow, reducing turbulence and the generation of microbubbles, as well as enabling low dynamic retention. In our ALAP perfusion school, at the Cedimat Hospital in Santo Domingo (Dominican Republic), which is an exclusive centre for cardiovascular treatment for the entire Caribbean and Central America region, we offer a Master's in Perfusion that has already seen various classes graduate. A couple of years ago, a thesis was published here based on comparing the drop pressure, oxygen transfer capacity and temperature, in vivo, in the surgical area of various brands of oxygenators in real conditions and the results confirmed the precision of the parameters of the Eurosets device.

What has struck you most in your relationship with the company?

To begin with, Eurosets was not very well known in Latin America, like nearly all European brands. Given its geographical closeness, most of the products and training we had access to came from North America. In recent years, however, Eurosets has risen quickly through the rankings in various countries in our region and, especially now in the middle of the current Covid-19 pandemic, its devices have been a reliable option to deal with the large number of patients undergoing ECMO therapies, with excellent results.

Have you ever visited the Medolla factory?

Yes, on two occasions and, whereas the first time I liked the rigorous quality processes of the white room, on the second visit I was pleasantly struck by the notable growth that the facility had experimented with. It is a pleasure to work with Eurosets, its welcome is unparalleled, the quality of its devices is recognised not only by perfusionists but also, not always openly, by all those who visit its stands. And then they always "pamper" us with their regional gastronomic specialities: espresso coffee, Parma ham, Parmesan cheese, balsamic vinegar, all well washed down with an unmissable Prosecco or Lambrusco.

PAN YUCHUN (PETER PAN)
Founder and MD of Cardio-Medical
Biology Scientific Company (Beijing)



With a degree in Clinical Medicine in the class of 1967 from Shandong Binzhou Medical University, a Master's in open-heart cardiac surgery and cardiopulmonary bypasses, an MBA from the Guanghua School of Management at Beijing University, anaesthetist and perfusionist, after a career at the Chinese offices of Terumo and Sorin, in 2013 he set up his own company dealing with disposable CPB and ECMO equipment and materials, which is Eurosets' main distributor in China.

The western version of his Chinese name, Pan Yuchun, translated as Peter Pan, fits well with the playful names of Eurosets' devices (Trilly above all - the Italian Tinkerbell) but he is not the boastful child of the fable but rather a doctor with a long career in hospitals and cardiopulmonary technology multinationals who came across Eurosets nine years ago and since then has become the company's contact in the land of Mao.

"It was in 2012, just before the Chinese lunar new year; I was in Modena with my former colleague, the head of the Sorin Group, the late Luciano Nicoletti, and we discussed possible cooperation with Eurosets. It was he who put me in touch with the company and I can never thank him enough for that and for his contribution to launching Eurosets in China. He helped me with the first CFDA (China Food & Drug Administration) registration of the Skipper device. We obtained the registration certificate in May 2014."

And what has changed since then in your relationship with Eurosets?

From that point on, our collaboration has gradually consolidated: each year we have increased the volume of devices and also the types. Beijing Anzhen Hospital, which specialises in cardiac medicine and surgery, where I worked and studied, is now one of the biggest users of the Eurosets products and one of my main customers: it has 16 cardiac surgery operating theatres and carried out around 12,000 operations in 2019 and 2020 and around 7000 CPB (cardiopulmonary bypass) operations.

What advantages do Eurosets' devices have over others on the market?

The design of the membrane oxygenators and the surface coating technology to improve biocompatibility offer advantages over other brands, and Landing, as an exclusive technical device for monitoring goal-directed perfusion (GDP), and the ECMO equipment and consumables offer clear technical advantages over competing products. The technology of the Skipper oxygenator, the design and functional parameters, as well as the ECMO equipment and materials offer significant technical advantages over competitors' brands. The advanced performance combined with the elegant appearance are gradually being recognised by our customers and I think that, going forwards, our collaboration can only strengthen in the long term, because what we also really like is the company's friendly, reliable approach and its consistent and stable marketing strategy.

Have you ever been to the Modena biomedical district?

Yes, I have visited the old and new Eurosets factories on three occasions. And I was always particularly struck by the modernity of the structure, by the investments in technology and by the management. The emphasis on research and development and the rigour of the research staff are memorable. In brief, I am proud to be able to contribute to this 30th birthday.

A perfusionist and cardiac technician at Halle University Hospital in Saxony-Anhalt, Germany, he moved on from studying mechanical engineering as a young man to specialise as a paramedic, studying perfusion technology at Dresden Technical University. Alongside his career as a hospital perfusionist and cardiothoracic surgery technician at Halle University Hospital (Martin Luther University in Halle-Wittenberg), he has worked as an advisor to major biomedical companies such as Medtronic, LivaNova, Getinge and also, since 2014, Eurosets for its ECMO systems

“We installed the first Eurosets ECMO oxygenator in our clinic in March 2010. It was an exciting bet for us: we didn’t know anything about this Italian company or about the product; we only knew the German retailer, Mr. Schmidhöfer, with whom we had been working for a couple of years and with whose competence and kindness I had been struck. It was he who recommended this oxygenator, one of the very few products of its kind on the global market. At that time, it was hard to procure ECMO sets for Halle-Saale University Hospital and procurement was always a source of great stress.”

This is how Markus Stiller, hospital perfusionist and advisor to biomed giants, begins the story of his collaboration with Eurosets, which was not without problems at the start.

Why did you choose Eurosets from the various device suppliers?

We were disappointed when we quickly realised that oxygenators, even Eurosets’, could not maintain their performance for more than 3 or 4 days. We had changed oxygenator models and suppliers several times and I remember how I was annoyed when I removed the Eurosets oxygenator from its support and noticed that the condensation water was not flowing out. I reported the problem to the company and they resolved it very quickly. That was the turning point: I was completely bowled over by the speed with which the Eurosets team dealt with and resolved the problem, something that had never happened with other suppliers.



From then on, our collaboration started to strengthen and since then we have shared the most diverse desires and ideas, which Eurosets has almost always carried out.

In your opinion, what are the plus points of the Eurosets devices?

First and foremost, their high quality; every day we are satisfied with the Medolla sets. We buy two-thirds of our HLM sets from Eurosets, especially the Horizon set and almost all the ECMO sets, as well as large numbers of accessories for day-to-day use in the cardiac surgery operating theatre. Many of these products are made to our own specifications and this personalisation makes it extremely easy for us to work with Eurosets’ products. I want to stress that we are an extremely important department of the university hospital, in terms of ECMO treatment, and we have become the key ECMO centre for the whole of Saxony-Anhalt. During the dramatic year of Covid, we doubled the number of ECMO interventions; this year we will reach almost 200 interventions.

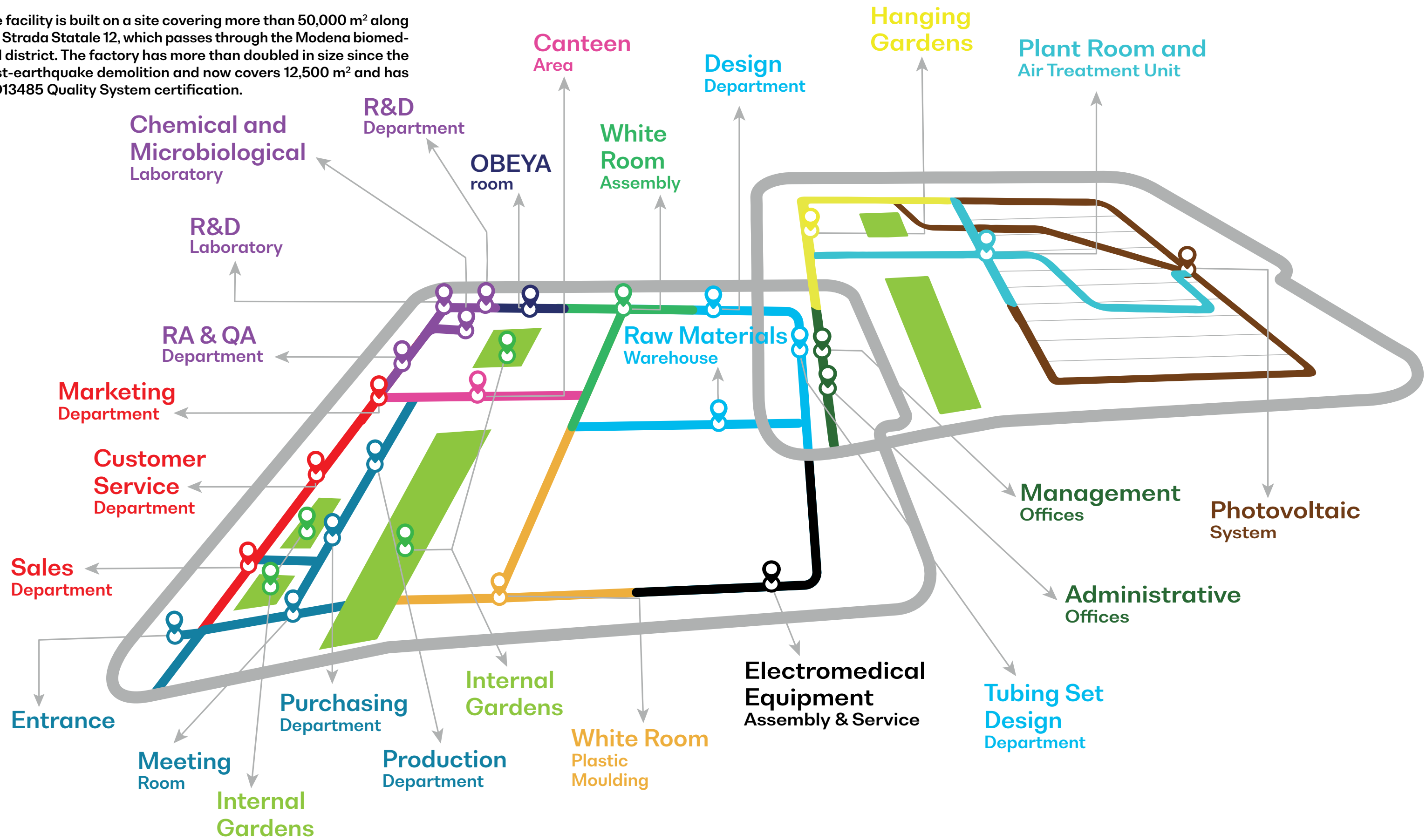
Does the precise and novel choice of design of the Eurosets products count?

The Eurosets devices do stand out in the departments and the bright, friendly colours of the products make them even more familiar to us in our day-to-day work. But what has always struck me most in our relationship with the company is the friendly approach, the calm and composure of all the staff and their responsiveness to our desires and problems.



HOW EUROSETS WORKS

The facility is built on a site covering more than 50,000 m² along the Strada Statale 12, which passes through the Modena biomedical district. The factory has more than doubled in size since the post-earthquake demolition and now covers 12,500 m² and has ISO13485 Quality System certification.



DEPARTMENTS

PLASTICS

MOULDING

More than a department, it is a 750 m² concentration of mechanical technology within the biomedical facility, with a similar sized area for maintenance workshops, dominated by ten injection moulding machines between the green floor and the blue lab coats.

Unlike mechanical engineering companies, the Eurosets moulding area is an aseptic area, classified as ISO 8 (with a maximum of 100,000 particles per m³ of air), where the light and cleanness of the space are as striking as the enormous 240-tonne machines, four completely robotised, all networked and operating 24 hours a day. Diego has been here all his working life; he arrived 19 years ago straight after qualifying and he now leads the department of eight people working in two shifts and knows the secrets of all the processes, technologies and equipment: the raw materials – polycarbonate, ABS, polypropylene, Megol - that are kept in the adjacent room in large silos - arrive through ten hoppers that run along the ceiling and directly supply the moulding machines, being turned into cylinders, reservoirs and fittings. The secret lies in the moulds, where the plastic component that will then be assembled is formed: over 300 different models, some extremely heavy that need to be lifted with hoists, others that cost more than the moulding machine itself and are the “cast”, the trademark that sets Eurosets devices apart from the competition. They are such exclusive assets that no more than one mould is ever ordered from a single supplier.

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There is also a furnace to treat the polycarbonate fittings and, since 2016, there has also been technology to produce the stainless steel tubes that form the core of the oxygenators (to heat the patient's blood), which was brought in-house given the volumes required and their strategic nature: each oxygenator contains 70 of them; 10 million items come out each year from the shaping machine that confers the typical functional knurled shape to increase the heat exchange area. Next, each single tube is pressure tested, inspected, washed with a base solution and baked for ten hours to dry it completely before being finished in the white room.

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DEPARTMENTS

WHITE ROOM THE FORGE



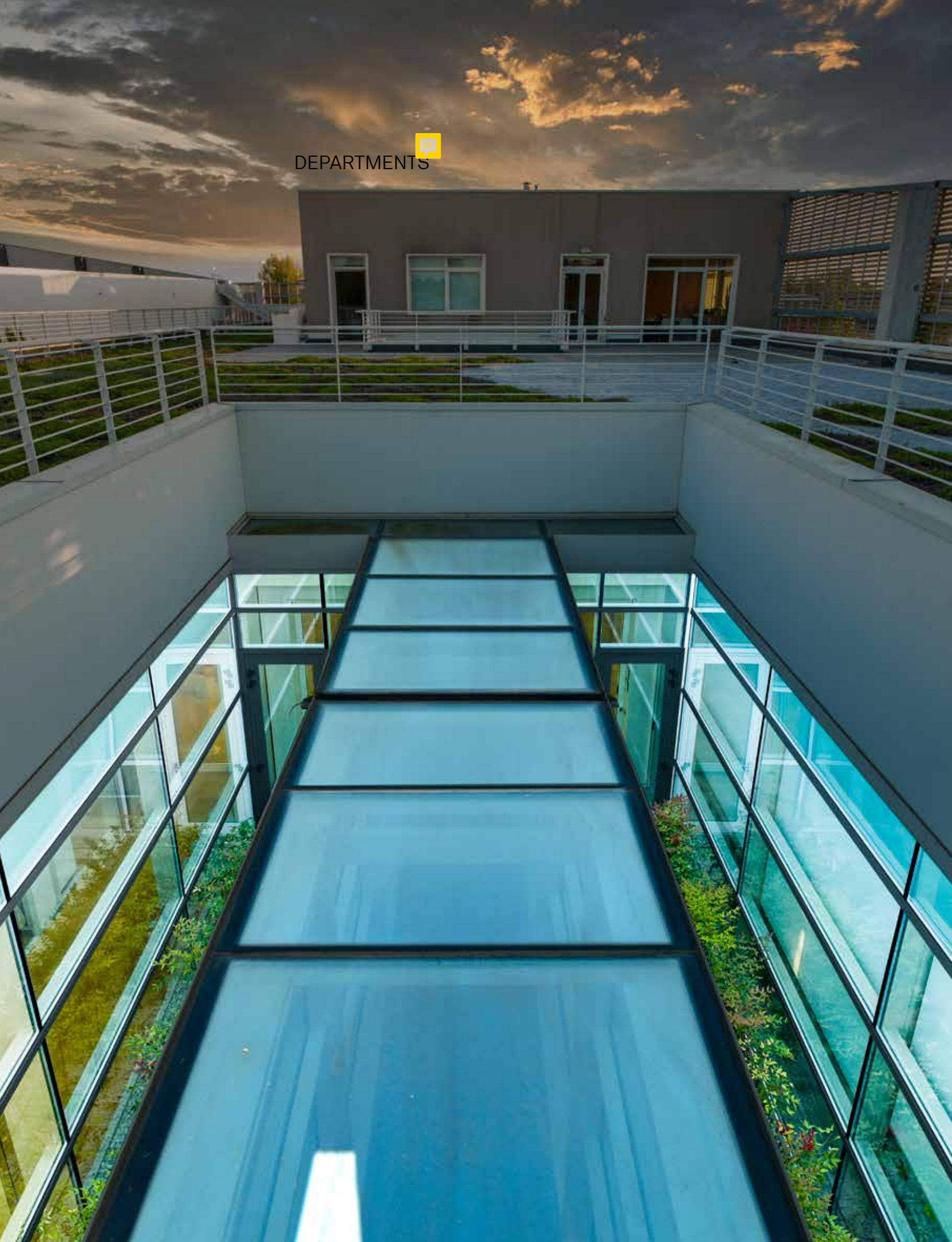


One thousand square metres, large windows through which flower meadows can be seen, contrasting with the white and sky blue of the department crowded with machines and staff, wearing masks, lab coats and headphones, working silently with music in the background. The air inside the department is clear, 99.4% of the fine dust in the air is filtered out (ISO 8 class); the temperature is a constant 20 degrees 365 days a year; humidity is 40%; three changing rooms in sequence with increasing pressure ensure the parameters are maintained inside the room: this is the white room, the “forge” of every biomedical company, kept under positive pressure 24 hours a day to avoid any contamination from external agents. It means that 60,000 cubic metres of air are filtered every hour.

An electronic big brother controls every change to the optimal conditions; alarm systems sound as soon as the safety threshold is passed, but there is no sign of frenetic activity in the department where 130 people work in two shifts, each day producing an average of 500 oxygenators, 700 arterial filters, 2000 drip filters, as well as drains, custom packs, wound management kits and centrifugal pump disposables.

In this department, women, who make up two-thirds of Eurosets’ workforce, make up 90% of the staff: they have small, patient and accurate hands that adapt better to the micro-tailoring work that is on show in this large colourful “display cabinet”. Signs indicating the various workstations hang from the ceiling: waxing machine, inserting machine, centrifuge, testing machine, washing machines, testing, coating treatment, resin dispensers, blister packers, welding machines. There is such a variety of technologies and equipment in these thousand square metres that it would be easy to lose yourself as if in a maze. But what is striking is the ability with which, in the assembly area, these women cut, assemble tubes and small plastic items following designs that seem quite incomprehensible. No robots can beat the manual dexterity and efficiency of those hands and heads, dealing with thousands of orders each different from the other, which are often changed by clients during the production process. It is craftspeople who work in the white room, not manual workers, and nobody is a number.





DEPARTMENTS 

DEPARTMENTS

SCIENTIFIC AREA

The scientific area is the beating heart of the company and is the area where the corporate knowledge resides. It covers nearly 800 m² divided between:

- **Laboratory**
- **Quality**
- **Research and Development**

The **Laboratory** has all the equipment needed to perform chemical/microbiological tests. Here, in a cross between the microbiology and chemical sectors, coatings and solutions are prepared for the white room to improve the biocompatibility of the plastic surfaces. Here, the assembled products are tested and methodologies validated; here, checks are made constantly that rooms and devices are free of residues, particles and contaminants.

The laboratory is connected directly to the white room through a corridor kept under positive pressure.

The **Quality Assurance** department complies with standards for medical devices such as ISO13485 and MDSAP for Canada, USA, Brazil, Australia and Japan and develops the necessary procedures to maintain and ensure a certified Quality System.

The **Quality Control** area carries out checks on everything from raw materials to finished products, guaranteeing quality in accordance with European and international regulatory requirements.

The **Regulatory Affairs** department assists the Research and Development Department in drawing up design dossiers and develops the technical files for CE marking; it works cross-functionally with all corporate departments and is in constant touch with the health ministries of each customer country. Eurosets currently markets its products in approximately 60 countries.

The **Research and Development** area is made up of the lab technicians' department and the design and drafting department. This area includes the experimental laboratory where all new products are tested and functionally validated.

The lab technicians' department deals with research, prototyping and construction of new medical devices as well as the maintenance, updating and modification of existing products.

The design and drafting department is where new devices are designed using software (CREO 3D) that transforms design ideas and sketches into construction drawings; using a 3D printer for rapid prototyping, the construction drawings are transformed into real plastic parts, enabling the devices being studied to then be built.



DEPARTMENTS

ASSEMBLY OF ELECTROMEDICAL DEVICES

Between the blue background of the imposing vertical warehouse and the green landscape outside the windows stands the new electromedical device assembly and repair department.



The hi-tech equipment assembly area complies with the highest biomedical safety standards, despite being carved out of the warehouse, and is filled with work benches equipped to assemble non-active components (for example, holders) and benches and ESD (electrostatic discharge) equipment required to assemble and repair electromedical devices. Eurosets' aim is to bring all production in-house, as soon as the new department to be created when the expansion of the Medolla factory is ready, bringing into the department the knowledge, technologies and assembly lines to draft, design and manufacture autonomously all the electronic products as well, in the same way as they have done for plastics during the first thirty years. The team has been working on this project for nearly ten years and it is now ready to take shape.



DEPARTMENTS

THE WAREHOUSE

It is rare to come across such a cheerful, bright and welcoming warehouse in the manufacturing sector. The long colourful posters hanging from the ceiling indicating the aisles give an artistic touch to the large 4250 m² area with over 3600 pallet spaces, where all the goods to be stored arrive, where the material to fill internal departments' orders is prepared and where electromedical devices are assembled and repaired. The other surprising aspect is that it is women, rather than men, who are driving the special narrow aisle reach trucks, providing confirmation that stereotypes do not fit this thirty-year old company made up of thirty-year-olds (the average age of employees is under 45). The finished product warehouses, however, have been outsourced since the 2012 earthquake, a supply chain strategy that rewards the efficiency, specialisation and guaranteed space from the logistics and transport supplier. The Medolla warehouse, which was designed to keep lorry movements separate from other departments, receives material from external production sites, which is checked and stored pending quality control, a task carried out by a specialist function, before proceeding to proper warehousing. Inside the vertical warehouse, a decontaminated environment is created, thanks to a positive pressure system, with air quality the same as that of the white room, which means that the material remains uncontaminated and can be moved automatically to machining in the assembly department without further controls.



WE WORK FOR SUSTAINABLE DEVELOPMENT

The United Nations'
Sustainable Development Goals
are also our goals, which we develop
each day in the company.



In the European heart of disposable devices (made of single-use plastic, as required by law), the theme of sustainability is a delicate balancing act between health and zero impact.

Set against the vice of not being biodegradable in reasonable timescales, plastics have the virtue of not being easily replaceable: they are light, versatile, easy to work and model into any shape cheaply, but above all they guarantee atoxicity, sterility and patient safety.

It is specifically in order to protect people's health that disposable tubes, oxygenators and bags cannot be recycled. But even before the SDGs (Sustainable Development Goals) of the UN's 2030 Agenda came into fashion, Eurosets had implemented a range of strategies and actions to mitigate its environmental impact and take care of the planet in order to offset what it cannot do - because of the requirements of standards to protect human health - to make its own production totally green.

For Eurosets, sustainable means maximising resource productivity, minimising discards and waste, using recycled and recyclable packaging and moving towards energy self-sufficiency, prioritising renewable energy sources. Its approach to sustainability underlies everything the company does each day: there is no single person in charge of sustainability; all employees are personally responsible for their green approach.

The underlying philosophy is based on the 5Rs: rethink, reuse, reduce, refuse, recycle.

R for Rethink strategies, with a completely new approach to sustainability: every action is directed to searching for new materials and new energy sources to reduce the company's carbon footprint. R for Reuse, starting from the energy and heat produced during processes, thanks to the trigeneration plant installed in 2019, which has enabled the company to supply more than 80% of its own electricity.

The third R is Reduce the environmental impact, which involved rigorous and consistent choices when designing and building the new facility after the earthquake. These include the 140 kW photovoltaic system on the warehouse roof, the hanging gardens that insulate the building naturally, the internal gardens that bring daylight into offices and departments, and LED lights powered by solar panels if the sun is not sufficient by itself to light the interiors. The photovoltaic system built in 2016 provides 5% of the electricity consumed; the trigeneration plant produces electric power, heat and hot and cold water.

The fourth R is to Refuse single-use, non-renewable solutions, which pushes the eco-friendly focus into every aspect of Eurosets' daily life and work: from drastically cutting the amount of plastic packaging in favour of cardboard eco-packaging and the introduction of water bottles for each employee instead of plastic glasses and bottles, and china cups for the coffee machine.



SOCIAL RESPONSIBILITY CIRCULAR ECONOMY

Finally, the fifth R, Recycle, with the decision in 2019 to use 100% recycled and recyclable cardboard for packaging and to use materials that are easy to recover at their end of life, where technically, legally and qualitatively possible.

This change in direction has not yet made a difference for Italian customers, but it is much appreciated if not specifically required by potential international purchasers, especially Scandinavian and North European partners.

Where green energy cannot be supplied directly, guarantee of origin certificates are purchased, certifying that the electricity is produced from clean and renewable sources. Today, with the 140 kW from the photovoltaic roof and the 300 kW from the trigeneration plant, the company itself produces 80% of the electricity it needs. The remaining electricity is bought from a company that can guarantee it is produced from renewable sources such as photovoltaic, geothermal, hydroelectricity and biomass.

The last report on sustainability distributed in spring 2021 certifies that over five years – from 2016, the year the photovoltaic system was put in – to today, the company **has saved over a million tonnes of carbon dioxide, the equivalent of 995 traditional combustion-engine cars**. Over a third of this saving has come from the commissioning in 2019 of the trigeneration plant, a solution that is still not very widespread in Italy despite the benefits in terms of utility bills and environmental impact.



FULLY RECYCLABLE PACKAGING

During the last two years, Eurosets has removed plastic from every process where it is not absolutely essential: all packaging is now made from recycled cardboard, a decision that is honouring the “Made green by Eurosets” devices

The road that Eurosets is travelling is marked by sustainability and zero impact on the environment not only in terms of energy self-sufficiency but also of its production processes. Through the introduction of recycled cardboard packaging and removal of plastic water bottles, over 410,000 tonnes of CO2 have been saved in the last five years. The approach to sustainability is not a slogan but a way of living and behaving day by day. This decision is not yet making a difference in companies' choice of supplier in Italy, but is a competitive advantage in Scandinavia.



Plastic remains the best material for making disposable life-saving devices. Currently, there are no alternative materials capable of ensuring the same versatility, safety and hygiene. But not one gram of plastic is wasted in the company; everything is recovered and recycled to minimise its environmental impact.





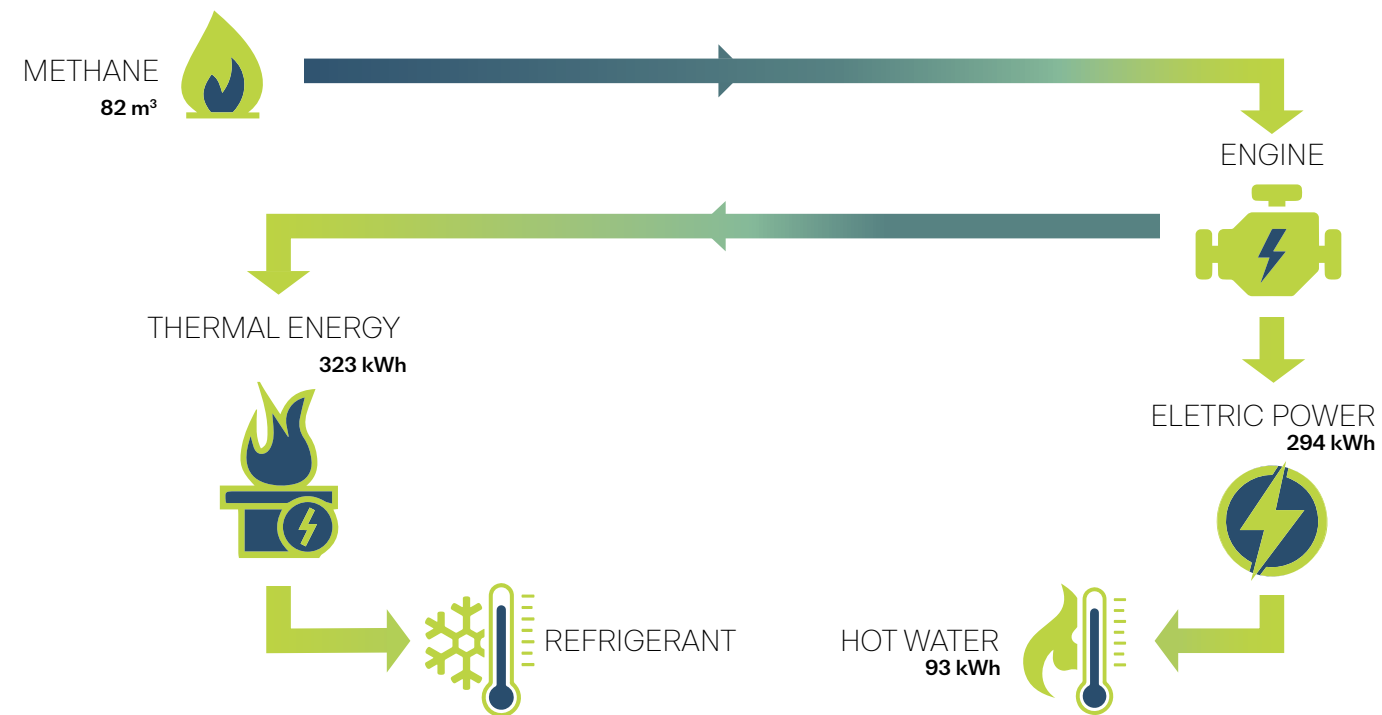
RENEWABLE SOURCES

The brand new plant that peeks out of the top floor of the Medolla facility, above the central body of the plant, in a barycentric position, is the symbol of Eurosets' green turning point, which has led it in the last five years to drastically cut its consumption and emissions by choosing social responsibility.

The central position of the plant room is not random: this area contains not only the power but also the technological solutions that ensure the filtration and particulate control and thus the air purity in all the moulding rooms and the white room below. Large ducts carry the air to and from these departments and the decision to place them overhead optimises many functional and technological aspects and limits the visual impact.

POWER PLANT

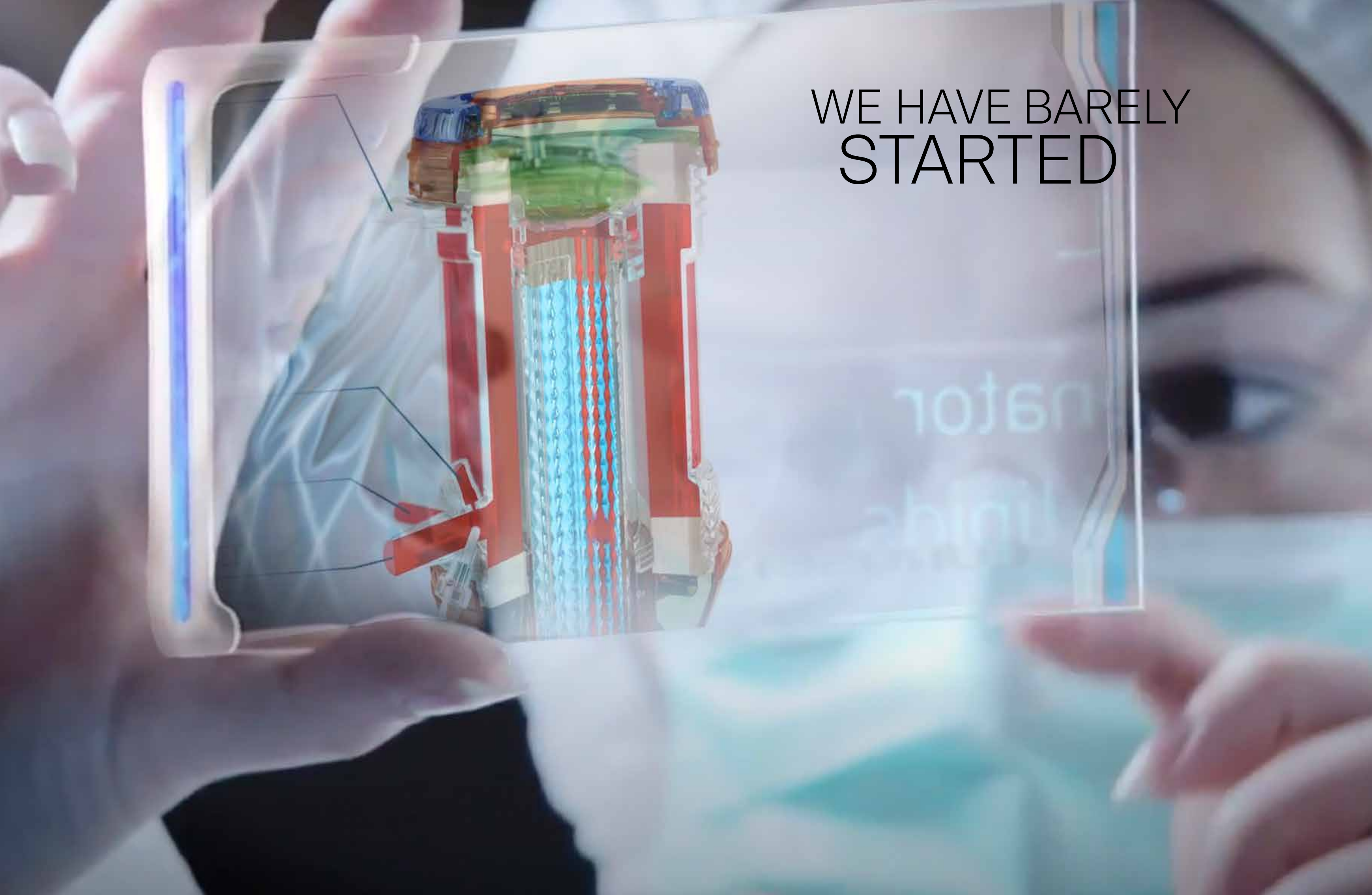
The trigeneration plant was Euroset's green turning point. This year, it has achieved energy independence, even though electricity consumption has doubled since 2015, in line with the doubling of volumes and turnover. In 2020, almost 170,000 kWh of energy was produced in-house thanks to the photovoltaic panels and over 2 million kWh through the cogenerator.



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WE HAVE BARELY
STARTED





THE FUTURE IS HERE



There is one requirement that Eurosets has not been able to avoid since the GVM Care & Research Group took the helm: the requirement to innovate and invest relentlessly in research and development to improve the existing products and patent new ones. Every year between 5 and 10% of turnover is devoted to innovation and the rapid increase in the last decade of disposable devices as well as electromedical equipment - from the launch of Landing and CO2Reset to that of ECMOLife - are testimony to this. Its 48 patents and the jewel of this 30th birthday, the life-saving miniature heart-lung machine honoured by Frost & Sullivan as the most innovative product in 2021 in the biomedical sector (ECMOLife), are an excellent opportunity to celebrate, but not to stop. Rather, they are the new goal to exceed.

“Meanwhile, in the last few months, we have opened a new electromedical equipment assembly and validation department. This area, which also includes the maintenance department, became necessary to deal with increasing market requests,” explains the CEO, who is very clear about the next objective: new projects - not only disposable devices and operating theatre equipment, but also intensive care and first aid equipment. The market will become ever more demanding, so devices will become ever smaller and more efficient, to the point that they can also be used outside hospitals to stabilise as early as possible patients at risk of dying.

Since the earthquake, in less than ten years, all the company’s statistics have more than doubled: the workforce has grown from 90 to 250 today, turnover from less than 20 million euros to 40 million, the number of oxygenators produced has exploded from 45,000 to 97,000 items, custom packs from 411 to 876 and the number of drains has actually quadrupled to almost 90,000 units. In 2012, Eurosets spoke only Italian. Today, it also speaks English, Spanish, Flemish, French, German and Chinese, after opening offices in Brussels, Lyon, Munich, London and Suzhou between 2015 and 2019. And now that the Covid emergency seems to be gradually subsiding, Eurosets’ plans to expand its commercial network are returning to the top of its strategic agenda. The 80% of its turnover linked to international markets may grow even further. This year’s budget forecast 45 million euros in turnover; the recruitment plan is relentless (in the first three months of this year alone about ten people joined the workforce); there are already plans to expand the Medolla headquarters by a further 5000 m² and we will soon run out of space on which we can build. Our industrial plan has set a target of 50 million euros for 2022 before jumping to 90 million euros within the next five years.



How can we do this? By exploiting our thirty years of experience in biomedical technologies applied to extracorporeal circulation to find new solutions for treating respiratory and cardiac diseases, which will be one of the three top causes of death in the coming decades as a result of the ageing population and pollution. Our vision does not stop here; we are looking carefully at two other important sectors: endovascular prostheses and regenerative medicine. Because in the coming years technologies will change but not Eurosets’ motto: “Every life matters”.

THE COMPANY'S
BRANCHES
ACROSS THE WORLD

UK

GERMANY

BELGIUM

CHINA

FRANCE

ITALY

OUR
NEXT **30** YEARS
THROUGH THE
EYES OF CHILDREN

"There is nothing better than exploring what will happen with amazement, wonder and freedom. These letters show what children, during their few years of life, have sensed from adults. Time. They describe flying ambulances, drones and robots that move faster, make fewer errors and can get to hard-to-reach places. They look at today's world with the purity that marks them, telling us directly and without filters how we are living the wrong way in today's world.

But it is the children themselves, fascinated by technology and robots, who put us on guard: only people can treat other people. Because only people can reassure other people, doctors who understand human emotions, because that is what makes the real difference!

Following the central theme running through our history, we can affirm that it has been and always will be a fascinating journey, full of stimuli and innovations with goals to achieve, as always, all together!

Setting out our objectives for the next challenges is important; searching for the best solutions for people's wellbeing is essential.
With kindness, for a better planet."

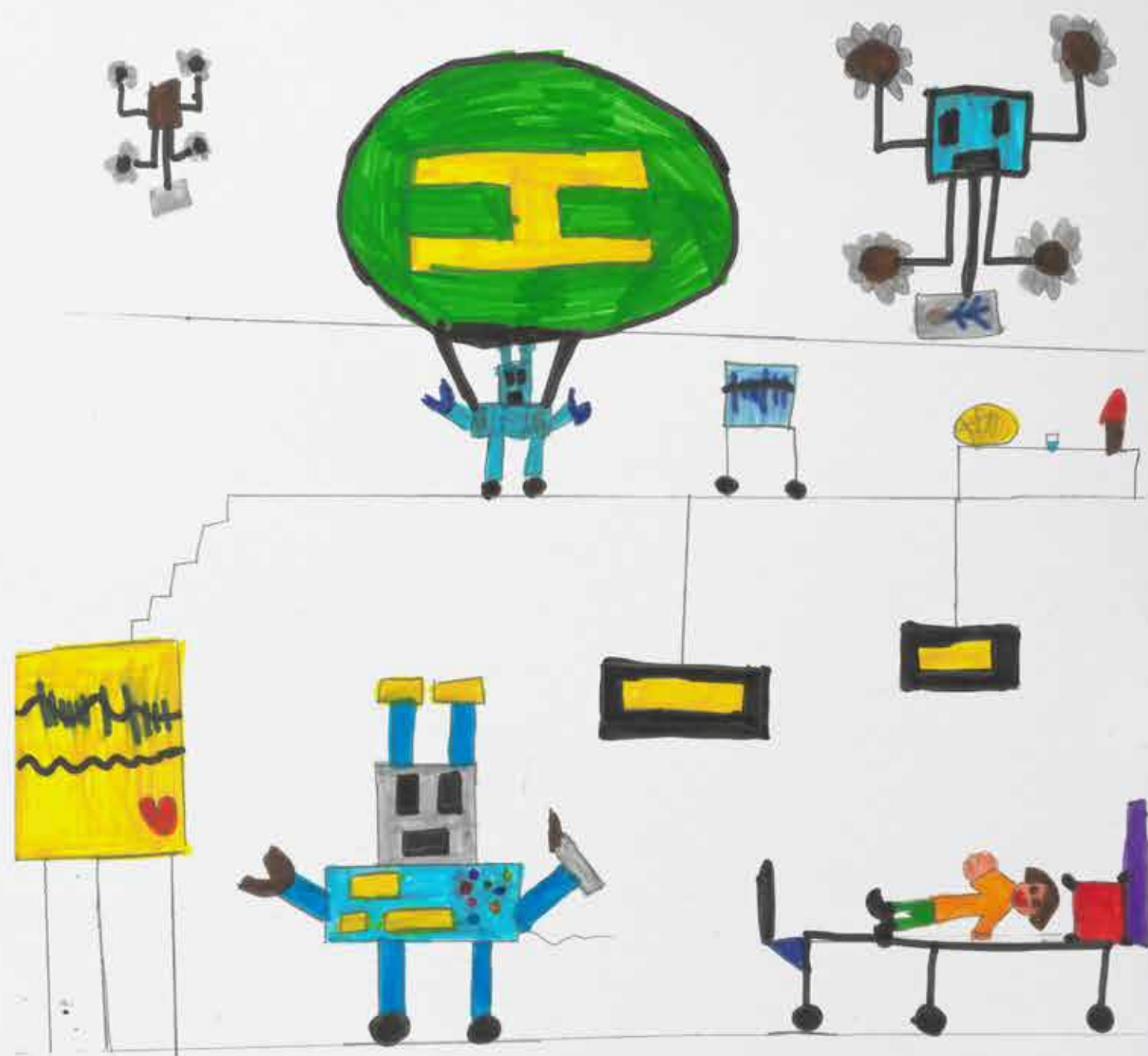
CIAO SONO MONICA HO 4 ANNI
E SECONDO ME I MEDICI TRA 30
ANNI NON CI SARANNO PIU' (UOMINI)
MA SOLO ROBOT LA COSA
PIU' IMPORTANTE E' CHE
VISTO CHE CI SONO ROBOT
NON USERANNO PIU' I GUANTI
E LE MASCHERINE COSI'
INQUINEREMO MENO!
CI AMMALE REMO MENO!



La sanità del futuro

I medici tra 30 anni cureranno le persone chiamandole al telefono, quindi indicando le medicine e spedendole con un drone; ci saranno probabilmente dei costi; le visite private verranno fatte col computer, e se ci sarà una persona in fin di vita, il drone farà tutto da solo (droni che rispettano la natura). Probabilmente ci saranno anche macchine fatte apposta per curare, che si potranno comprare comunemente, anche in casa! Quelle saranno molto tecnologiche.

Saranno vietate medicine non ecologiche, perché se rispettiamo la natura ci ammaleremo di meno: quindi è importantissimo rispettare la natura!
Gabriele Saltari



SECONDO ME LA SANITÀ NEL 2057. LA SANITÀ SARÀ CHE I ROBOT CURERANNO I MALATI E ALTRI ROBOT-DRONI PORTERANNO SU BARELLE I PAZIENTI. DA CASA AVREMO DELLE BIP PER PARLARE CON I MEDICI AI QUALI INVIEREMO TUTTI I NOSTRI PARAMETRI BASALI. COSÌ LI POTRANNO CURARE ANCHE RIMANENDO A CASA. TANTE MALATTIE OGGI FATALI SARANNO BANDITE. SAN FELICE (MO) 23/05/2021 Jacopo Rossi

I MEDICI TRA 30 ANNI

I medici e i chirurghi, nel 2051, probabilmente cureranno i pazienti con robot guidati a distanza anche di migliaia di chilometri e forse li trasporteranno addirittura con delle ambulanze volanti.

Così ci metteranno meno tempo ad arrivare all'ospedale e le auto malati non dovranno più spostarsi al bordo della strada per farle passare.

Enrico Ferrarini 23/05/21

LA FANTAMEDICINA

Bernardo Masotti 23/5/21



Per me la medicina fra 30 anni sarà molto fantascientifica.

Mi immagino i medici e gli infermieri che vengono aiutati da intelligenze artificiali.

Saranno bracci meccanici che si muovono e aiutano negli interventi chirurgici.



Insieme come se ci fosse un Jarvis di Iron Man che aiuta a curare i pazienti.



08-06-2021

- Tra 30 anni secondo me ci saranno dincota le persone di culture altre persone.
- Le macchine non possono sostituire i medici perché non provano emozioni e non possono rassianare persone.
- Ci sono già tante macchine sulla Terra.
- Vorrei che tra 30 anni il pianeta sia un posto migliore
- Le persone dovranno imparare a trattare meglio la nostra casa



Gioia ♡
7 ANNI



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