

PACOPAR

COMMUNITY ADVISORY PANEL OF THE RESPONSIBLE CARE PROGRAM

MAGAZINE 2011



INDEX

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A NEW LOOK ON A MORE DEMANDING REALITY

DIOGO ALMEIDA SANTOS
HEAD OF THE PACOPAR SECRETARIAT
ADMINISTRATOR OF AQUATRO
PROJECT MANAGER OF CUF

We are on a turning point in the daily actions of PACOPAR. Complying with the rule of secretariat rotation every two years, it is up to CUF, during 2012-2013, to take the wheel. This is the second time CUF proudly assumes the Panel's secretariat, hoping, with their commitment and availability, to develop the significant role the Panel plays in the industry/community inter-relation in Estarreja.

In the present mandate, we propose to continue the merit worthy work that has been developed in previous years, without ceasing to imprint on the Panel's activity a concern for the timeliness of its goals and scope of action, facing the present and the near future contexts.

We have made a strategic reconfiguration of the organic structure, with the board/general coordination focusing on the secretariat and offering the chairman the leadership in promoting the Panel's interests, preserving its continuity in the future, and attaining pre-established goals. It was with great pleasure that, to occupy this position, we got the agreement of António Castro Valente, who is very much involved in the community of Estarreja, knows the specific sensitivities of the municipality, and has pro-found knowledge of all matters concerning safety and civil protection, having always shown efforts in the creation of healthy bonds between CQE (Estarreja Chemical Complex) compa-

nies and local communities. We would like to thank you for this decision of solidarity and friendship.

The Panel's activity will continue to focus on existing work groups, which were very motivated in the last two years, and we take the opportunity to especially acknowledge two colleagues and friends: Luís Ferreira, who led the previous secretariat, and José Fernando Correia, who gave great support to the secretariat, for a clarified and effective actions coordination. For them, also, our deepest acknowledgements.

We always count on all elements of the Panel to participate in an intervention on the process of re-evaluation and focus of the strategic lines of their action in the areas that prove to be more important for the community.

For this year's magazine, we have chosen the thematic of sports, which has in London its more global and eclectic expression with the Olympic and Special Olympic Games of 2012. We wanted to highlight, in the scope of this special human manifestation, the highly important contribution of chemistry and the chemical industry.

We also wish to point out, in a very vehement manner, the person that gives body to the grand interview. She's Maria Conceição, born in Estarreja, who in her professional international path, has left indelible footsteps in the form of humanitarian and volunteering actions, which are an extraordinary example. An example for all of us who firmly believe that in the hardest moments it is volunteer solidarity that, rather than money, can truly help minimize the necessities and the suffering of our most unfavoured fellow citizens.





THE HUMANITARIAN ACTIONS OF MARIA CONCEIÇÃO HAVE BEEN ACKNOWLEDGED INTERNATIONALLY AND ARE CHANGING THE LIVES OF MANY CHILDREN

"MANY TIMES I'VE FELT DESPERATE... BUT THEN I LOOK IN THE CHILDREN'S EYES AND THINK: HOW CAN I GIVE UP?"



Finding it difficult to get a job in her country, Maria Conceição left Avanca behind at the age of 18, to be an emigrant in Switzerland. A trip she made later on, led her to embark as a flight attendant in an airline company of the United Arab Emirates, and to disembark one day in a reality that has taken her to a change in her life, as well as in the lives of many children. Her humanitarian cause has already earned her the Woman of the Year prize, in the UAE, and a European acknowledgement award. The fight against poverty, through offering all children an opportunity to study, is her current life goal.

It was in one of her trips, on a visit to Dhaka, in Bangladesh, that she felt an urge to help. This was an "eye opener", like you said before. Most people would have felt compassion, but also resignation. Could you please describe what happens inside a person to make her go from resignation to action?

Being compassionate and resigned doesn't change a thing. The world is full of such people. What you have to do is roll up your sleeves and get inside the action, and to make something to help change the current state of things. You can't just cross your arms and wait for it to happen or for things to change.

You have initiated Dhaka Project, with the help of the locals. How did it all begin?

I started by asking for clothing donations. I would go every time to Dhaka to deliver them. We began by helping 39 children, then 98, then 200, and then 600...

How many people, children and parents, is the Dhaka Project currently helping?



At this time, I don't know, because I'm no longer involved in the Dhaka Project. It is being managed by the locals, it's been almost four years now.

Where does the financial support come from? How has the fund raising network been built?

We get most of the donations and sponsorships from marathons or mountaineering events. We have also a network of companies that offer services. GEMS offers scholarships, STS offers transportation, Accuro free meals, Zacks school uniforms, Manchester Clinic renders free medical service, Smiline gives away dental treatment, Osteopathic Health Center provides free counseling, the Centre for Musical Arts offers music classes, and Etihad provides for the plane trips.

You have said in an interview that the Dhaka Project's intervention is completed only when the children's parents get jobs. Do you also develop some action that aims to attract local investment or to develop a sustainable local economy?

We tried, on a local level, but we failed. The castes hierarchy is dominant in the country (even if officially disguised, Bangladesh still lives according to a castes system, that is to say, social differentiations based on ones ethnic or religious origins, etc.); this holds a great deal of prejudice and makes it hard for slum dwellers to have opportunities. It is easier for me to find them work in Dubai then in Dhaka. So we are now focusing on bringing them to Dubai, because here, a monthly pay working at the post office or helping a disabled person in a wheel chair equals two years of salary in Dhaka. This is the only way to help them break the poverty cycle.

WOMAN OF THE YEAR IN THE UNITED ARAB EMIRATES

In 2009, Portuguese Maria Conceição, currently living in Dubai, won the Woman of the Year prize, awarded by the Emirates Woman magazine. In 2007, Maria has already been distinguished with the prize "Most Exceptional and Innovative European Women of the Year", at the "European Union Women Inventors & Innovators Awards", in Berlin. The award acknowledges the merit on social entrepreneurship of Maria Conceição, who has spent her childhood and her youth in Avanca. At 18, she emigrated to Switzerland and later, in England, she got a job as a flight attendant for a Unit Arab Emirates airline. It was in a trip to Bangladesh that she discovered the dramatic reality of slums in Dahka, the country's capital. From then on, she began asking for clothes, gathering hygiene products offered at the hotels, asking her colleagues for help, until she gathered some locals to create the Dhaka Project, in 2005. Presently, this NGO is already managed entirely by locals. Based on a network of sponsors and on support and donations raising, the Dahka Project offers an education to children in the slums of Dahka, who would otherwise be begging on the streets, or working, offers their parents training and insertion in the work market, besides providing material goods, food and healthcare to other natives. More information: <http://www.thedhakaproject.org/>





MARIA CRISTINA FOUNDATION

After the Dahka Project, Maria Conceição has begun other individual projects that aim to eradicate poverty. This is how Maria Cristina Foundation was born, in 2009, with the purpose of “unlocking and maximizing human potential for the development of countries”. In 2010, through the foundation’s activities, Maria Conceição managed to attain the first scholarships and to bring some young people from Dahka to pursue their education in the United Arab Emirates. The foundation is also dedicated to promoting activities, mainly sports events, to raise sponsorship in order to continue offering education to children and also to find jobs for the families in the slums of Bangladesh. Maria Conceição divides her time among the young who are in Dubai, giving them support and counseling, in meetings to establish sponsorship agreements and in physical practices to enable them to take part in sports competitions for fund raising. She has participated in several marathons. Lately, she has been dedicating to physical practice to climb Mount Everest, with the purpose of earning sponsorships and to raise awareness for the need to fight poverty. More information: <http://mariacristinafoundation.org/>



The project’s volunteers are only locals or are there volunteers from other countries?
There are volunteers helping from all around the world.

Did you ever want to give up? How does one overcome the impotence?
These last 2555 days have been very hard. I have often felt desperate and wanted to give up. A day doesn’t go by when I don’t think of giving up, but then I look into the children’s eyes and think: how can I give up? They have so much faith and hope in you, it’s hard.

You have also created a foundation, Maria Cristina Foundation, which aims to raise funds and to manage a few humanitarian projects. Is Maria Cristina a tribute to your mother?
Yes, to the great woman that she was. There are not many people doing what she did these days.

Can you tell us the story of your adoptive Angolan mother?
My biological mother Henriqueta was unemployed. It was then that she met Cristina, a widow, with six children that worked as a cleaning lady. But she didn’t hesitate to take me in. Her motto was “who feeds six feeds seven”. And she was right. Just look at my curves (laughs). She looked after me with love. What she couldn’t give me in material wealth, she gave me in love. (Upon the death of Maria da Conceição’s biological mother, Maria Cristina eventually adopted her).

What are your future projects? Where are you willing to go?

To continue helping young people, offering them scholarships and helping the children’s parents finding a job that makes them independent.

Do you visit Estarreja often?
This is a 24 hour, seven days a week job, and I haven’t had time. .

In Portugal and, more precisely, in Estarreja, is there a humanitarian project that you could or would like to develop?
If I were in Portugal I would open a care centre for the elderly.

If the community in Estarreja wishes to help, volunteer, what should they do?
Disclose.



PARTNERSHIPS BETWEEN THE MUNICIPALITY AND COMMUNITY GROUPS ARE FRUITFUL

PROMOTING HEALTH AND “BUILDING” CHAMPIONS IN ESTARREJA

Once upon a time, there was a little girl in a Summer Camp who didn't want to enter the kayak along with her colleagues, to experiment canoeing. Fearing that the canoe would capsize, and fearing the mud visible in the banks of Ribeira da Aldeia, in Pardilhó, she was paralyzed and repelled. After the insistence of one of the teachers she eventually entered the kayak. What happened next? This girl, the athlete Mafalda Ribeiro, has already won the title of National Canoeing Champion for three years in a row, scoring 13th place in the European Championship and 14th place in the World Championship.



Cristiana Santos tells this story with visible emotion, because it illustrates the fruit of work made by the Escola Municipal de Desporto (EMD) de Estarreja (Municipal School of Sports in Estarreja) and of the several local community groups in initiating children and young people in sports. On occasion of the Olympic Games 2012, in London, we have tried to understand how athletes are initiated in sports, and sometimes become champions, in Estarreja. The main goal isn't training Olympic athletes, but making children and young people sensible to the importance of “practicing sports” regularly, “and above all”, explains Cristiana Santos, head of the EMD, “to instill this “medication” in their lives, a medication that can be a healthy way of protecting them from diseases that are usually related to inactivity and ageing.” In order to achieve these benefits, one must associate the word “regular” to the practice of sports. “The more times a week they practice, the more benefits they will acquire in time”, she explains, warning that any excesses can also be harmful. So, practicing sports should be “guided by technicians and in a proportion that is adequate to the age and physical condition of those who practice sports.”

OLYMPIC SPORTS OFFERED BY THE ESTARREJA COMMUNITY GROUPS

Associação Artística de Avanca: Handball
Associação Atlética de Avanca: Football
Associação Cultural de Amizade e Desporto Olímpico de Fermelã: Football, Karate
Associação Cultural e Desportiva do Rochico: Indoor football
Associação Cultural e Recreativa Saavedra Guedes: Handball; Canoeing; Indoor football
Associação Cultural de Salreu: Handball
Associação Desportiva Arsenal de Canelas: Handball; Roller-skating; Indoor football
Associação Desportiva de Santiaais: Football
Associação de Moradores da Urbanização da Póvoa de Baixo: Indoor football
Centro Recreativo de Estarreja: Athletics
Clube Cultural Desportivo de Veiros: Football; Roller-skating
Clube Desportivo de Estarreja: Basketball; Football; Swimming
Estarreja Andebol Clube: Handball



“children's football team”, which in 1998 and 1999 has participated in the first children's football tournament of Vila de Estarreja. “Unfortunately, we had to interrupt it due to the lack of proper facilities”, and to the lack of “a football field to serve smaller communities”, regrets the head of the centre.

“O Atlético” is the name of the school of Associação Atlética de Avanca for children under 7 years old. “From here, the athlete goes through the several echelons until becoming a senior”, explains Aníbal Teixeira, member of the board of the community group. The athlete may evolve to “senior B echelon, and may become senior A”.

IT'S BEST TO BEND IT WHILE IT'S A TWIG

The sooner they try physical exercise the better. The EMD has the “Campos de Férias” (Summer Camps) and “Escolinhas do Desporto” (Schools of Sports) programs that offer children the chance to get in contact with several sports. “Escolinhas” work with weekly trainings, on Saturday mornings, with diversified sports. There are also a few community groups that promote children's sports initiation, like Centro Cultural e Desportivo de Salreu (Salreu Cultural and Sports Centre), that organizes, once a year, an “afternoon for sports, aiming to awaken the taste for sports in children attending junior school.” The fruit of such actions, as the president of the centre Manuel Almeida reminds us, was the creation of a

The Associação Cultural e Recreativa Saavedra Guedes (Cultural and Recreational Association Saavedra Guedes) has an indoor football echelon “escolinhas”, with 23 athletes, and in the canoeing area, they promote a “program for attracting young people on weekends”, refers António Esteves, treasurer of the association. Besides, they cooperate with the EMD on summer camps. These are but a few of the many examples of local associations and clubs that promote children's initiation in sports and offer



a possibility of follow-up to top level (see call-out box: “Olympic sports offered by the Estarreja community groups”). After making young people “sensitive”, anything can happen. “Whenever the EMD identifies a child with a special physical aptitude for sports, or with sports oriented motivation”, it has, according to Cristiana Santos, the concern of “forwarding and broadening the possibilities for the practice of the sport in question.”

BUILDING ATHLETES AND PARTNERSHIPS

Forwarding athletes for competition is fruit of joint labor between the municipality and local clubs and community groups specializing in one or more sports. Mafalda, who feared canoeing in the Summer Camp of the EMD, convinced her mother to take her to Saavedra Guedes to repeat that experience, until she became national champion. Besides canoeing, in which athletes of all categories have gathered several national champion titles, individual and crew titles, and participations in finals of championships and cups around the world, Saavedra Guedes also develops competition in feminine

handball and indoor football, the later with 5 teams, having the junior team earned the national champion title. In total, the community group has 198 federate athletes.

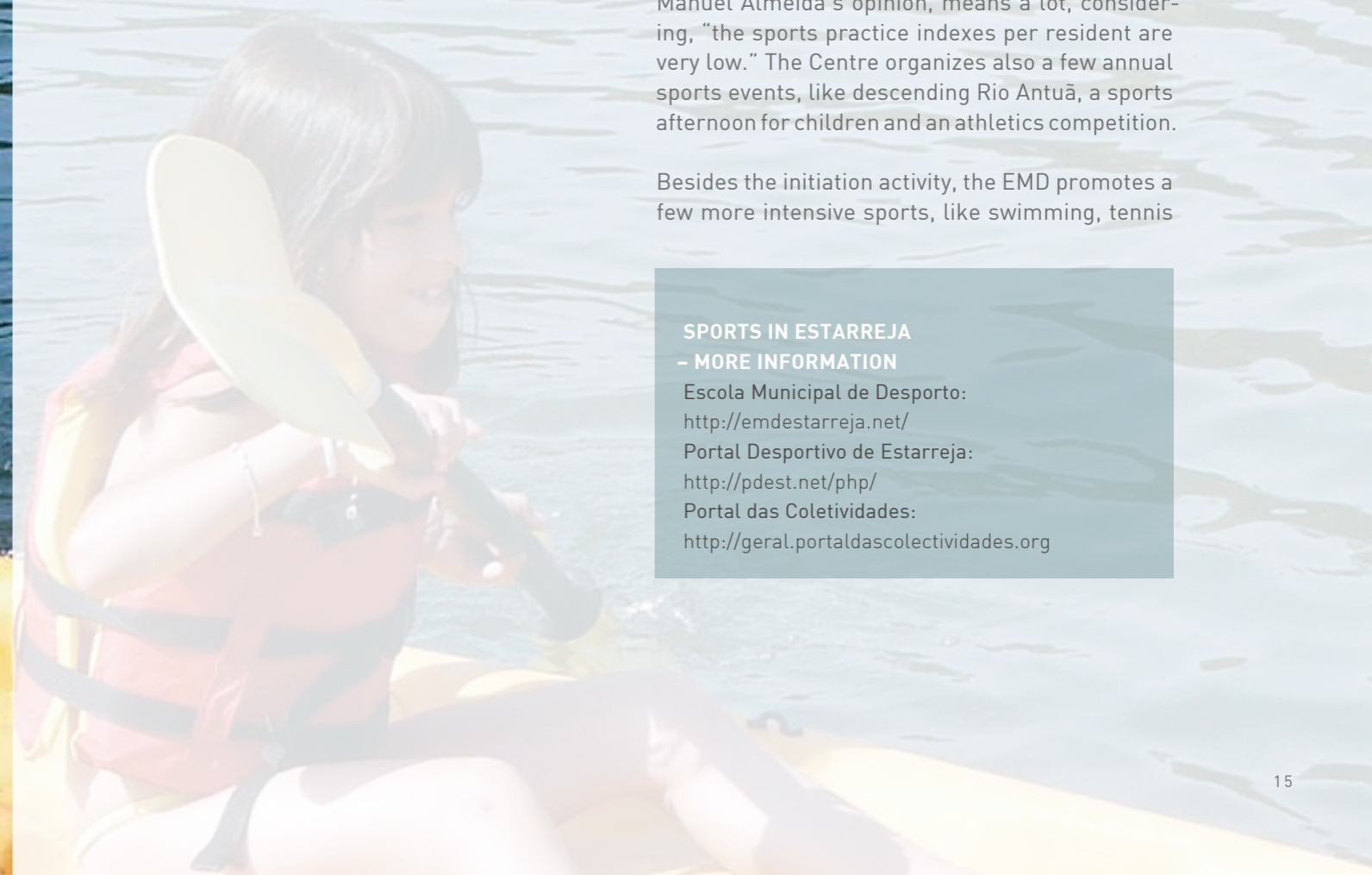
In *Atlética de Avança* the number of athletes has suffered a boom. “In 2008, the community group had 136 athletes, in 2012 we have 298”, reveals Aníbal Teixeira, identifying as reasons the increase of their sports park conditions and the “healthy spirit of the existing group of leaders, technicians and athletes”. *Atlética* has 17 football echelons of 11 and 7 players, the senior competing in the 3rd National Division, and 15 echelons in the official championships of Associação de Futebol de Aveiro (Aveiro Football Association).

From 1990, the Centro Cultural e Desportivo de Salreu has kept a senior football team in competition, which participates in the district championship of Fundação Inatel and was champion of the 2nd division in 2003/2004. “On average, 26 athletes per sports season enroll”, and the community group has already offered regular exercise practice or competition to 300 athletes, which, in Manuel Almeida’s opinion, means a lot, considering, “the sports practice indexes per resident are very low.” The Centre organizes also a few annual sports events, like descending Rio Antuã, a sports afternoon for children and an athletics competition.

Besides the initiation activity, the EMD promotes a few more intensive sports, like swimming, tennis

SPORTS IN ESTARREJA – MORE INFORMATION

Escola Municipal de Desporto:
<http://emdestarreja.net/>
 Portal Desportivo de Estarreja:
<http://pdest.net/php/>
 Portal das Coletividades:
<http://geral.portaldascoletividades.org>





and squash. The Escola de Natação (Swimming School) offers practice until level 5, “where we seek to perfect all swimming techniques, as well as starting and turning”, Cristiana Santos explains. “We intend for the students to acquire basic skills to be able to follow the competitive scope, in Clube Desportivo de Estarreja (Estarreja Sports Club).” The Escola de Ténis (Tennis School) and Squash offer advanced training and skills consolidation that allow athletes to enter competitions.

BUILDING A BIO-PSYCHOSOCIAL BEING

And which is the greatest compensation of all this work? It’s the contribution to building a “bio-psycho-social” being. Cristiana Santos breaks the word: “through sports, the teacher and/or coach must pass values on to athletes, which are respect for others, understanding differences, the idea that losing is also a part of sports and that it gives us the strength to win, the importance of fair play, to enjoy and to know how to work as a team, with the team having different elements and different ways of thinking/acting, but with a common purpose.”

A set of values that, besides the family and school context, can be made stronger in a sports context. Cristiana considers this is a component that is “often neglected” with repercussions on athletes that are “very able physically”, but “who lack maturity for the competition”, which can lead to “poor results and / or early abandonment of the practice.” Manuel Almeida closes the gap: “More important than the victories or the titles, the merit of the Centro Cultural e Desportivo de Salreu is the stimulation of regular sports practicing in a population over 18 years old. We may not be “manufacturing” champions, but we contribute to improve the health and well-being of citizens.”



Cristiana Santos
Responsável da EMD

GLORIES OF ESTARREJA

The Clube Desportivo de Estarreja (Sports Club of Estarreja os CDE), in the now extinct athletics section, initiated important national names in the sport, such as Glória Marques, national champion and European vice-champion of 800 meters, Cristina Marujão, record holder and national champion of broad jump. In basketball, the CDE created athletes that came to wear the national team shirt, in juniors and cadets, such as João Pedro and André Pinho Ferreira. In football, Joaquim Guiomar, known as Rola, was the most important reference of Sporting Club de Portugal in the 50s, like Rui Pedro Gonçalves who also made a name for himself on the CDE, in the 80s, and was Paulo Futre’s team mate. Fonte: www.cdestarreja.org



XXX OLYMPIC GAMES – LONDON OLYMPICS 2012

The opening will take place on July 27 and it will close on August 12, at the Olympic Stadium of London. The Olympic torch was announced on May 26, 2010. During 70 days before the event, it will go through the hands of 8.000 people, among them Portuguese Isabel Jonet, president of Banco Alimentar contra a Fome (Food Bank Against Hunger). She will leave Greece and will arrive in London on May 18, 2012. The motto of these games will be “Live as one”. Official site : <http://www.london2012.com>





WHAT HAPPENS INSIDE THE BODY OF A TOP LEVEL ATHLETE?

THE CHEMISTRY OF SPORTS



The alarm clock rings at 8 o'clock in the morning. He has breakfast to supply some "fuel" to a biological "machine" preparing for the London Olympic Games. Diogo Carvalho (see profile) then heads for the pool, where he practices two hours in the morning, followed by the gym, where he spends approximately one hour and a quarter. At approximately 7 p.m. he returns to the water for two more hours of pure swimming. At the end of the week he sometimes made 30 hours of training, in which the body uses chemical energy sources that offer him a chance to achieve the high yield necessary to get to London. Biochemistry, the basis of human life, thus becomes far more intense in a top level body. Carbohydrates, proteins, oxygen and water, among others, combine and travel to the cells in a chemistry that makes Olympic achievements possible.

Right now, the body and mind of Diogo Carvalho are focused in the Olympic Games. "That's why I gave up my studies for a year, to train at the highest level", the athlete confesses. Health and fitness are a starting point. And it begins with proper eating habits, as Diogo acknowledges. An athlete's diet should be individual and vary "according to the quantity and intensity of his physical workout". António Esteves, a sports doctor, explains: "We

have the training diet, which is the most important one, which acts as the basis for a good preparation for the competition, a competition diet, which varies according to the sport in question, and a recovery feed, which allows the organism to correct the wear out, and refills nutrients reservoirs." It is estimated that "most athletes should ingest 3000 to 4000 kilocalories a day", of which 60 to 65% should be carbohydrates, 25 to 30% lipids and 10 to 15% protein. In the "training load" stage, Diogo Carvalho eats "at will", because there's no "risk of gaining weight or any other type of problems occurring", when competing or resting, he undergoes a more careful diet, based on "protein and carbohydrates, important as fuel for the muscles."

THE MUSCLE - CONVERTS CHEMICAL ENERGY INTO MECHANICAL ENERGY

After adequate eating habits, the muscle gets into action. Its job is to "transform chemical energy, supplied by food, into mechanical energy, of which muscular contraction and movement derive", explains António Esteves. That is why athletes have prominent muscles.

The transformation of nutrients into mechanical energy occurs through a chemical reaction of cells, that requires yet another chemical element. "Without oxygen there's no production of aerobic energy. One liter of oxygen used in "burn-

"THE BEST PORTUGUESE SWIMMER OF OUR TIME"

Diogo Carvalho is an Olympic top level swimming athlete, of the Clube dos Galitos, Aveiro. And according to the site of the Federação Portuguesa de Nataçao (Portuguese Swimming Federation), he is the "best Portuguese swimmer of our time". Born in 1988 and studying medicine at the University of Coimbra, he interrupted his course for a year to undergo intensive training for London. The Melbourne world championship, in 2007, launched him to an international career, having stood out in every final he participated since, except for the Olympics. He has become the only Portuguese swimmer to succeed in all 100 meters styles in less than a minute, in a short course pool. He currently holds 12 national records. For more information, see: <http://www.fpnatacao.pt/> and <http://www.galitos.pt/>

ing" glucose produces 5 kilocalories, in burning fat 4.7 and in burning protein 4.4 kilocalories", the doctor explains. That is why when the intensity of the workout increases, we become increasingly breathless. There's a need to burn more chemical energy, to transform it into mechanical energy, hence the need for the oxygen "burner".

Hemoglobin present in the blood is responsible for carrying oxygen to cells. In order to improve the capacity of this transportation, athletes perform altitude trainings. "Since the amount of oxygen is smaller in altitude, our organism is able to produce more hemoglobin to fight and to reduce that deficit, thus improving the transportation of such oxygen to the cells in our body. When we descend, we now have a greater capacity for carrying oxygen, since at

low altitude the amount of oxygen is normal again", explains Diogo Carvalho

SWEAT - BIOLOGICAL "AIR CONDITIONING"

In the process of producing mechanical energy, the body also produces thermal energy. This is why we heat up when practicing sports. And with the heat comes sweat. But why? Because water liberation is the way for the body to cool down (36.7o is the average temperature of the human body). "On average, 70% of our body is made of water, and most of it is inside the cells. Sweat is extracted mainly from the intracellular compartment, inversely affecting the cell's metabolism", explains António Esteves.

So, the more an athlete sweats, the more tired he gets, and the stronger the heat in summer, the harder it is to practice sports. "When the loss of fluid reaches 4 to 5% of the body weight, the capacity for physical work falls to about 50%", the doctor points out. That's why practicing sports leads to drink more water.

WE ARE ALL CHEMISTRY

These chemical processes are, after all, the basis of life. So, the health habits of an athlete must be equal to the ones we all should have, as António Esteves points out: "avoid food excesses, alcohol, smoking, other drugs, a controlled life, respecting sleep hours, since "when resting, in biochemical terms, an athlete's body works like everyone else's body." The difference "is the capacity to adjust of its several systems - neurological, muscular, cardiovascular, intracellular - conditioned by specific training."





It's the old saying: the body adjusts to the environment. And Diogo Carvalho verifies this after the approximately 4 to 5 weeks of holidays. "When practice begins, he immediately complains, so not training for a long period of time has a huge impact." This is even more so when practicing water sports. "It is necessary to create sensitivities that one can only maintain by going to the pool every day. (...) the fact that I'm away for only 5 days, I immediately can sense a huge change in my body."

Maybe this is why the athlete's yield is greater in the afternoon than in the morning. "I think my body is a little more "dormant" in the morning than in the afternoon", assumes Diogo, who tries to "modify that biological rhythm", since "try-outs are in the morning", and the athlete has the purpose of "being present in two half finals and break two new national records" at the Olympics. PACOPAR wishes him all the luck in London.



FROM THE WATER DRUNK BY ATHLETES TO THE FIELDS THEY STEP ON - CHEMISTRY IS EVERYWHERE

CHEMICAL COMPANIES IN ESTARREJA ENSURE THEIR PRESENCE AT THE OLYMPICS

The Companies of the Estarreja Chemical complex (CQE) have also ensured their presence at the Olympic Games of London 2012. And they are present in all sports, either in clothing, fields, balls, rackets, swimming pool water, the water drunk by athletes, grass, the fields' domes, lights, the public's seats... there's chemistry in everything at the Olympic Games. We can find the application of some chemicals like those produced by the PACOPAR companies in several products.



AIR LIQUIDE

FULL THROTTLE OLYMPIC COMPETITIONS

Cycling, Swimming, Winter sports, Sailing, Athletics, Gymnastics... Air Liquide gases are everywhere.

Cycling: The bicycles' frames are increasingly lighter, and require increasingly more sophisticated manufacturing processes. Air Liquide has developed welding processes (Tig: arc welding with refractory electrode and inert gas that protects the electrode, the fusion bath and the warm metal) and offers the whole set of equipment and material needed.

Swimming: Ozone is a very efficient solution for the disinfection of pools. This gas eliminates bacteria and other micro-organisms present in hot water, considering this is the most adequate means for their development. Besides, ozone has a pleasant smell and doesn't cause irritation to the skin or the eyes.

Winter sports: Speed skating, or bobsleigh are sports that demand perfectly regular and very hard tracks, in order to achieve great speeds. In



order to stabilize them, liquid nitrogen is used. Its -196 °C temperature allows for accelerating the freezing process and to obtain a very compact ice.

Sailing: Nothing is ever left to chance in competition sail boats. In order to achieve high precision, high yield sales are cut by laser, resorting to, for example, LasalTM.

Athletics and Gymnastics: Mats for jump receptions are made of polymer foams manufactured with the help of gasses like carbon monoxide and hydrogen, among other products.

TO KEEP THE OLYMPIC FLAME BURNING

Air Liquide has supplied a laser gas solution to help TPG (The Premier Group), a British leading company in the engineering sector, maintain the Olympic flame lit. Based on this solution 8000 torches will be manufactured for each one of the torch carrier for 2012, who travel the United Kingdom. Presenting a complex drawing, the shape of the torch is made from aluminum, with the particularity of not having any seams and having 8000 holes. To make the torch, it was necessary to apply the latest technologies in the welding and laser cutting fields.

AQP

WATER FOR THE OLYMPIC CHAMPIONS

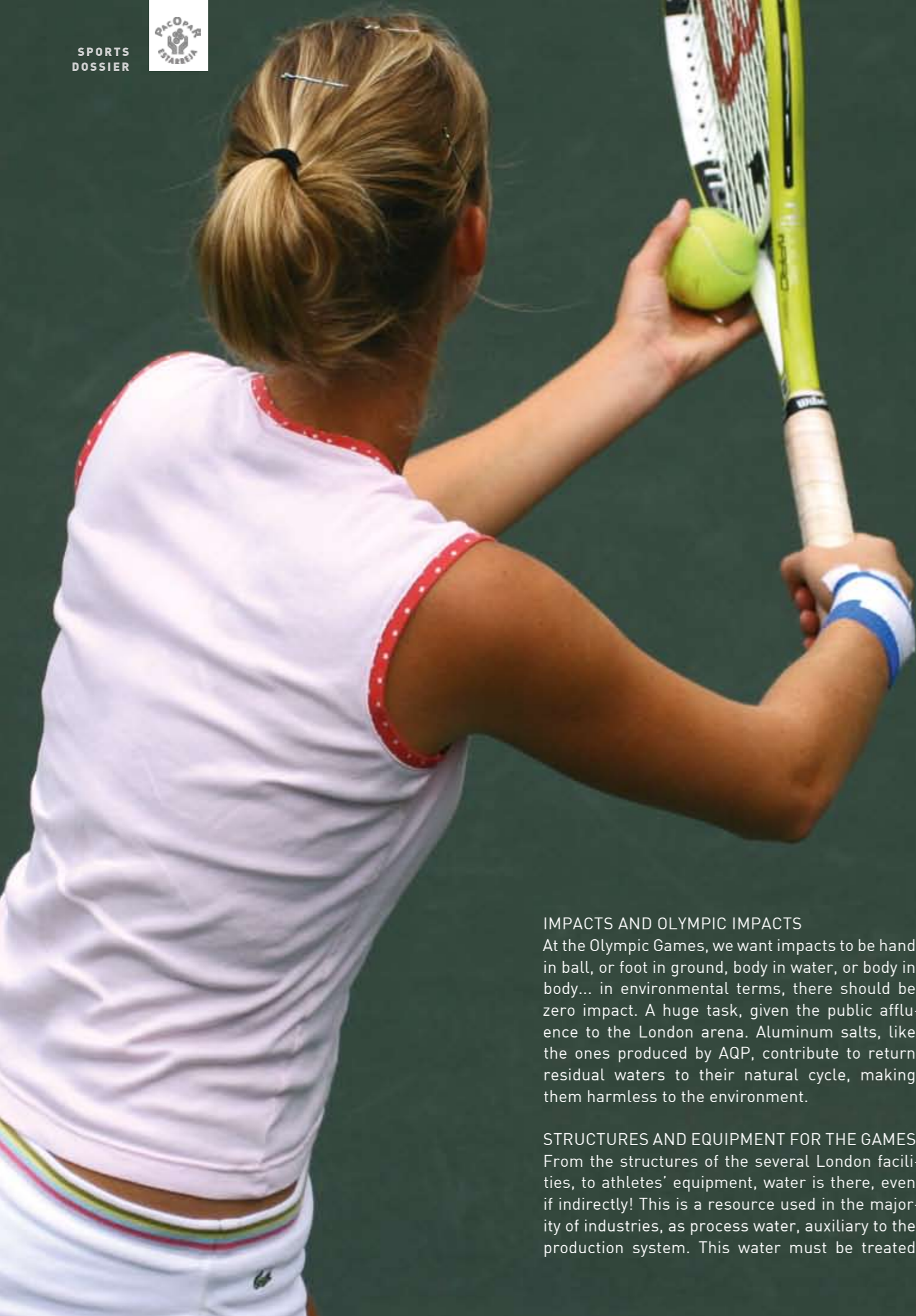
Water, apart from being a vital component of the human body, is currently still a mean and/or a basic raw material for all industrial processes that allow to attain essential everyday goods. AQP produces inorganic coagulants (aluminum salts) which are fundamental in water treatment. From these products, two groups produced in Estarreja stand out: aluminum sulfates and polychlo-



ride, used in clearing urban and industrial waters, through the elimination of suspension particles, incorporated organic matter, as well as nutrients present in residual waters.

IN FAVOR OF HIGH OLYMPIC YIELD

If water is an essential resource for human life, the more vital it is for athletes' high performance. To get water into the London arena, it must first undergo treatment and purification processes that ensure its quality for consumption. Water, in its original state, may contain products of organic decomposition and sand or clay particles, seaweed or bacteria, apart from a highly variable pH. So, chemical treatment is fundamental to make water adequate for human consumption. Aluminum sulfate and polychloride, products like the ones made by AQP, make it possible to offer good quality water to any athlete.



IMPACTS AND OLYMPIC IMPACTS

At the Olympic Games, we want impacts to be hand in ball, or foot in ground, body in water, or body in body... in environmental terms, there should be zero impact. A huge task, given the public affluence to the London arena. Aluminum salts, like the ones produced by AQP, contribute to return residual waters to their natural cycle, making them harmless to the environment.

STRUCTURES AND EQUIPMENT FOR THE GAMES

From the structures of the several London facilities, to athletes' equipment, water is there, even if indirectly! This is a resource used in the majority of industries, as process water, auxiliary to the production system. This water must be treated

before it enters the production process. Its quality is ensured by inorganic coagulants, like those produced by AQP.

CIRES

A BASKETBALL FIELD THAT LOOKS LIKE A CLOUD

The basketball arena of the London Olympic Games is one of the most modern facilities used in the Olympic and special Olympic Games. The steel structure has 20 thousand square meters and is covered by a PVC membrane. The versatility of PVC, a product also made by CIRES, in Estarreja, allowed for making a texture on several arched panels, that give the covering a "foamy" and "crunchy" look. The visual effect is created when the PVC is stretched on the three variations of different arched panels.

PVC was the material chosen for being an accessible and versatile material. Besides, it can be easily recycled, after the dismantlement of the basketball field, which can be decided after the end of the Olympic Games, thus preventing useless materials or structures from remaining in the Olympic facilities.

Preliminary and quarter finals basketball games will be played on this field, as well as the handball and wheel chair basketball and rugby try-outs. If the basketball arena is the most iconic expression of PVC in the games, its presence does not end

there. This material is present in several product components associated to the games, such as buildings, seats, sports materials, and others.

CUF

CUF HELPS BREAKING RECORDS AT THE OLYMPICS

Organic chemicals, based on aniline, and inorganic ones, based on chlorine, and their derivatives, are found in an endless chain of products related to sports and physical activity. And which event would be better to prove it, than the Olympics?

CLOTHING

Better equipment is one of the reasons for the constant improvement of world records, especially in athletics. Currently, shirts and pullovers, especially for those who practice sports, are made of light materials and allow for perspiring in a natural way, without "wetting" the clothes; they have antibacterial treatment and UV protection (ultraviolet rays) – because they contain a thread, created by chemistry, that protects sportsmen from ultraviolet rays. There are also clothes that contain threads with bacteriostatic effects which control the production of bacteria that generate body odor. This property is achieved by adding chemical substances that are incorporated in the threads, even after the clothes are washed. In footwear, polypropylene and polyurethane resins, elastomer and special adhesives make shoes lighter.





STADIUMS

Fertilizers and herbicides keep grass greener and more uniform; in the watering system of the fields and chairs in the stadium, rain or shine, a geotextile coverage will be there to ensure the show will go on.

CHLORINE TO TREAT POOLS

In swimming or jumping sports, treating the water is vital, because its aesthetic quality must be kept (crystal clear water, no residue, and with no unpleasant odors), as well as its sanitary quality, to maintain water healthy and safe for the health of users, and pH must be controlled also, which indicates whether the water is acid, neutral or base. And at the end of another day of the competitions, after all the agitation and frenzy, we may need to take a paracetamol pill - made from CUF's nitrobenzene.

DOW

AN OLYMPIC WORLD PARTNERSHIP

The Dow Chemical Company is one of the main sponsors of the London Olympic Games, after being approved by the International Olympic Committee as a World Olympic Partner. Until 2020, Dow

will be the official chemistry company of the Olympic Games. As global leader in industrial chemistry, combining innovation with scientific excellency and sustainability to meet world challenges, Dow frames its partnership in the mission of the Olympic movement, which stands for peace and progress. Dow will also be present in London, through its products, which will ensure better conditions both for athletes and the audience.

DOW AT THE OLYMPIC STADIUM...

London's Olympic Stadium is enveloped in a strip made of fabric manufactured from sustainable raw materials, made by Dow. This strip will be composed of 365 individual panels, 25 meters high and about 2 meters width. Made from polyester resins and low density polyethylene, the material is 35 times lighter than conventional fabrics, releasing much less carbon during the production stage. Besides, roofs insulation materials of Dow offer the stadium a greater resistance to humidity and a more solid structure, contributing to the reduction of the "urban heat island" effect and of the energy costs. Foam, lining materials and Dow's polymers, such as Poly-Carb™, offer greater comfort and durability to the seats in the stadiums.

MORE RESISTANT AND SAFER STRUCTURES

Dow's resin floors, made with a low content of volatile organic composts, were conceived to make pavements more firm, safe and non slippery, especially for athletes that use the Eton Manor Sports Complex. Thanks to Dow's resins, the hockey field surfaces are more resistant, safe and smooth contributing to the good performance of the 380 athletes competing in the 75 games of this sport.

PROTECTED ATHLETE

Dow's high performance foam allows for manufacturing equipment that's highly protective for the athletes' muscles and joints. Polyurethane used in sports shoes soles provide a greater damping effect against the impact of racing.

FROM LONDON TO THE WORLD...

Dow's solutions to protect wires and cables help to effectively convey TV transmission signals for the approximately 4 billion viewers from around the world that will tune in with the London Olympic Games 2012. Dow's roof insulations increase the energetic efficiency in press centers, where 20 thousand media professionals and thousands of visitors are expected.

GREENER FIELDS

Herbicides and turf for the field's lawns, and Dow's linings, help to offer athletes lush green fields, while ensuring an excellent resistance and impact absorption.

ICE TECHNOLOGY

Dow's insulation products installed underneath icy surfaces help maintaining the temperature of the ice constant and the athletes' performance high.

REST IN THE OLYMPIC VILLAGE

The athlete's rest is as important as training, that's what the experts say. Dow's polyurethane varieties offer a wide array of foams, like viscoelastic, which ensure the ultimate comfort in mattresses and pillows, for a tranquil sleep. Insulation solutions for roofs help protect the 17 thousand athletes and the sports technicians that will be lodged at the village from climate disturbances.

SAFE PARKING

Dow's waterproofing systems help protect concrete floors in parking lots from deterioration and offer more anti slip resistance on ramps and walkways, ensuring a safer use of the facilities.





VOLUNTEERING IS WHAT MAKES SPORTS HAPPEN IN ESTARREJA

“MAYBE IT’S AN ADDICTION!!!!”

Well, let’s take one thing at a time! He has been a doctor for the Clube Desportivo de Estarreja (Estarreja Sports Club), he has given medical assistance at Clube Recreativo de Estarreja (Estarreja Recreational Club) and to the seniors team of the Associação Atlética de Avanca (Avanca Athletic Association or AAA), where he has been made an honorary member. He has been giving the Associação Cultural e Recreativa Saavedra Guedes (Cultural and Recreational Association Saavedra Guedes or SG) not only his medical knowledge, but also a significant part of his life. He is an example of the volunteering spirit on behalf of sports, which is also present in the Olympic philosophy.

In SG, since 1980, he has been president of the Cultural Committee, of the Sports Committee, of the Board and of the General-assembly. He is currently the treasurer and supports canoeing activities. Besides the weekly meeting, he spends “every day at least an hour, or more, in the canoeing section” and accompanies almost all of the weekend competitions. And there’s more! He has the canoeing team equipment washed at his own home. “Maybe it’s an addiction!” he says. It’s the addiction of the souls that offer themselves and their time to make sports happen in Estarreja. It’s the addiction of António Esteves, currently treasurer at SG, from Pardilhó, and who never earned “one cent” from any community group. He, and so many other names who have worked so that the several



municipal associations and clubs are able to offer sports practice to children and young people.

“Without the voluntary and dedicated work of a dozen section workers, such a huge sports activity would not be possible. Neither at the Saavedra nor in any other municipal club”, says Esteves. This is also the opinion of Manuel Almeida, of the Clube Cultural e Desportivo de Salreu (Salreu Cultural and Sports Club or CCDS): “From the project’s presentation, to the planning, preparation and execution of the event, directors put in many hours of work for the community”. It’s hard to quantify the number of hours spent, but “everyday” they have to “handle issues related to the community”.

About 4 weekly hours is how much Anibal Teixeira, associative leader since 1986, offers the AAA, which he currently chairs. “But most board members (about 25) dedicate over 15 to 20 weekly

hours, always out of pure belief”, he says. “At SG, except for the physiotherapist, the senior indoor soccer coach, and the canoeing trainers, who are paid travel expenses, all of the leaders and section workers are volunteers. They train, accompany and provide weekly transportation to the competitions, often in their personal vehicles”, says António Esteves. Just like in the AAA. Besides being made by volunteers, the transportation of athletes must sometimes be undertaken by directors on their personal vehicles, or by the athletes’ parents.

Being pre-retired, Anibal Teixeira currently spends his free time helping the community and often “gives up a family dinner”. So does Manuel Almeida, who is forced to abdicate his family and rest. “It is increasingly harder to combine professional and personal life, and still have time to be an associa-

tive leader.” Associative leadership can both be “stimulating” and “ungrateful”. Those who practice it, says Manuela Almeida, “shouldn’t expect to receive any reward other than the pleasure of actively helping social, cultural or sports development in his/her community”

That is the core of the addiction António Esteves speaks of. An addiction that doesn’t destroy, but rather builds, in the words of Manuel Almeida: “The associative movement is like a school where one can be enriched in several areas: public relations, marketing, management, human relations, and others. The Estarreja municipality has always had associative leaders that were examples of dedication, righteousness and ambition to society. This is the greatest legacy that current leaders should pass on to the younger generation”.





ANTÓNIO CASTRO VALENTE
CHAIRMAN OF PACOPAR



MEDITATE ON CHALLENGES

One day I read a proverb that said: “The word is strong, when it is felt, sincere and wise.”

When I was challenged to write a few words for the PACOPAR magazine I found myself meditating: life offers us challenges each day, some more appealing than others, some more achievable than others, and others that meet what we have been internalizing, maturing and assuming over the years – TO VOLUNTARILY SERVE.

I found myself meditating on the invitation received to preside PACOPAR’s meetings, promoting its interests with consensus, ensuring their continuity and representativeness on an institutional level.

I found myself meditating on the double challenge life has offered me, and I remembered the proverb and thought; my word is felt, and sincere, however, in order to be strong and to serve the true purposes of PACOPAR, it must also be wise.

I found myself meditating again and realized the solution is in the wise word I am going to find in You, that will allow us to promote PACOPAR, projecting it and disclosing, with belief, the reason for its creation, its guidelines, results and, in

good sense, friendship and realism, to implement strategies advised by the word and wise experience. And, in such a way that our actions may be responsible, fraternal, consensual, and always aimed at the reality of chemical industry, its operation and its safety, and also the reality surrounding us, and that we one day have decided to solemnly and conscientiously support, inform and share with experience, wisdom and with a patron-like attitude: our COMMUNITY.

I would conclude with my motto of all times: you can count on me and, together, we will be the bastions of responsible care and the banner of PACOPAR.

LUBÉLIA NOGUEIRA PENEDO
NATIONAL COORDINATOR FOR
RESPONSIBLE CARE®



RESPONSIBLE CARE

10 YEARS AFTER THE CREATION OF PACOPAR, A NEW CODE, SECURITY!

Ten years after the birth of PACOPAR, we remind you of what Responsible Care® was after all, and briefly discuss its evolution until nowadays.

Starting in Canada, 1985, in order to answer public concerns about the production, distribution and use of chemical products, Responsible Care® has been extended to about 60 countries around the world.

In 2006, the Global Agreement on Responsible Care® has extended the concept of ongoing improvement to activities associated to the safe use and manipulation of chemical products throughout the entire chain of value.

And in 2010, CEFIC - The European Chemical Industry Council - published the European Safety Code - Responsible Care®.

A first approach to this new theme will be made in the scope of Responsible Care® and its commitment towards Sustainability, with which it is

foreseen that the Chemical Industry’s performance will improve in an ongoing and sustainable manner in the areas of health, environment, product safety (Safety) and the defense of tangible and intangible assets of every company (Security).

PURPOSE AND SCOPE

The European Safety Code - Responsible Care® has the purpose of describing a set of management practices aimed at protecting people, property, products, manufacturing processes and information, and other systems against which criminal, mischievous and technological actions are taken. It also incorporates the specific activities of the Company regarding the production, storage, distribution and products transportation, as well as strengthens the relationship with Suppliers, Customers and the Community.

MANAGEMENT PRACTICES

Security Management Practices (Security) must be adjusted to each company, and supplement the management Practice Codes(*) of Responsible Care®, and must consider the guidelines briefly listed below:

1. Top-level Leadership Commitment of companies in the adoption of Sustainable Policies for Ongoing Improvement
2. Risk Analysis of threats, vulnerabilities, probabilities of occurrence and consequences
3. Implementation and development of security measures (Security) that are compatible and adequate to risks

4. Safety training and information (Safety) to workers, hired parties, service renderers, and all partners in the supply chain

5. Communication, dialogue, information exchange, even within the same type of industries, on security issues (Security)

6. Response and evaluation of threats, incidents, near misses, and safety accidents (Safety) with the information and sharing of the corresponding corrective measures

7. Audits, Controls, and Ongoing Improvement with a periodic review of programs and ongoing monitoring of the entire security process (Security).

It is up to the Chemical Associations of the several countries registered in CEFIC to promote and guarantee the effective implementation of this new concept of Responsible Care®.

Each Association is also responsible for developing and establishing a specific nation-wide program aimed at Small and Medium Businesses, prepared together with the associated companies, as to broaden the scope of Responsible Care® to the entire chain of value.

(*) Remembering Management Practice Codes on Responsible Care®:

1. Creating awareness in the community and response procedures to Emergency situations
2. Distribution
3. Health and safety of workers
4. Prevention of pollution
5. Safety of processes
6. Product Stewardship

JOSÉ BARARDO RIBEIRO
PERMANENT MEMBER OF
SIG RESPONSIBLE CARE® - CEFIC





CQE COMPANIES SAFETY PERFORMANCE

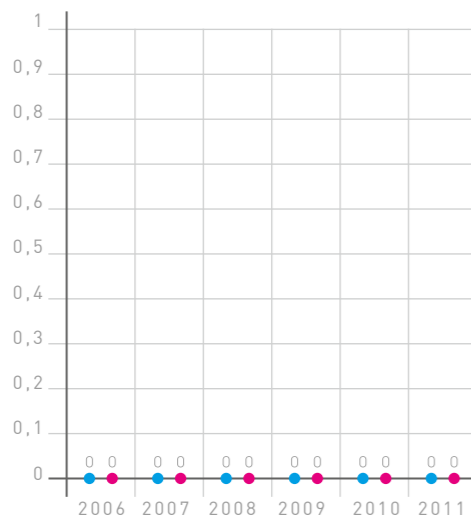
ACCIDENTS INDEXES

The fulfillment of legal measures in force and the adoption of their own internal standards for risk control and working behaviors by the companies of the Estarreja Chemical Complex (CQE) are still reflected in the sector's performance indicators. The companies' policy of investment in safety is highlighted by the accidents indexes. In the charts presented,

we witness the general positive evolution of the companies in the safety area throughout the years. The frequency index of accidents is calculated through the number of accidents with sick leave in a year, by each million hours worked; and the severity index represents the number of work days lost per year, by each thousand hour period worked per man.

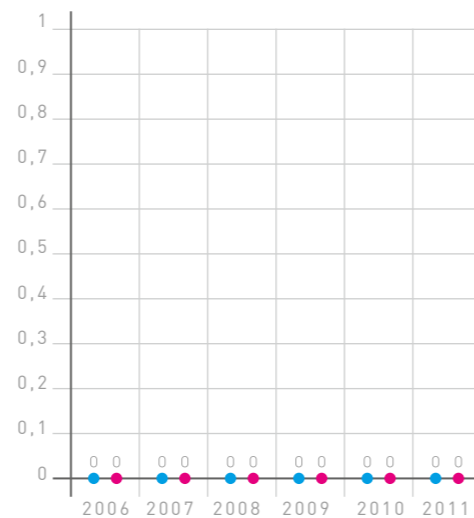
AIR LIQUIDE

In the years under analysis there were no accidents, so the indexes have zero value.



AQP

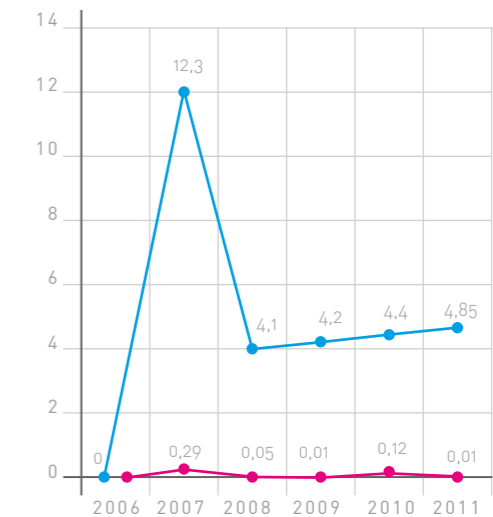
Like in previous years, there were no accidents in 2011.



● Accident frequency index
● Severity frequency index

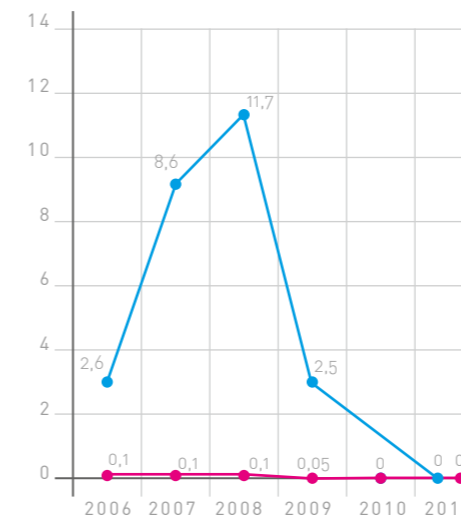
CIRES

Registering ongoing low values on accident indexes of CIRES, compared to OMS reference indexes (If =100; Ig=2.0).



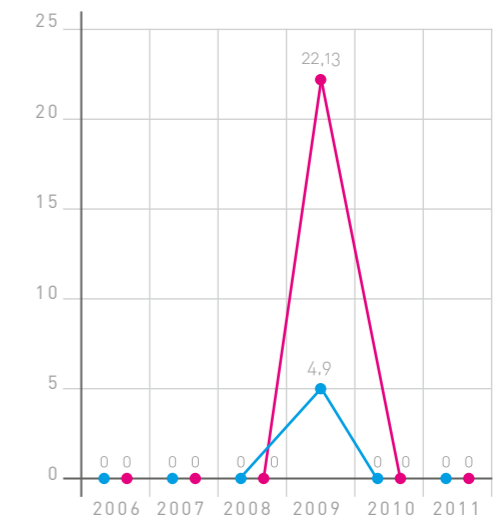
CUF

This was another year without accidents with leave of absence at CUF Químicos Industriais S.A.



DOW

In the year of 2011, Dow Portugal did not have any personal safety accident.





CQE COMPANIES ENVIRONMENTAL PERFORMANCE

The diverse nature of the companies of the Estarreja Chemical Complex (CQE) industrial activity, as well as their policy of investment in environmental sustainability, is proved on the environmental indicators. The strict compliance with legal provisions and the ongoing improvement of industrial

processes allow for attaining results that have improved as years go by, decreasing the environmental impact of CQE.

The indicators presented below express the relation between emission values/consumptions and

the production quantity. Gas emissions represent the ratio between the emissions total (the sum of the total emissions of particles, sulphur dioxide, nitrogen oxide, carbon monoxide, COV and heavy metals), and the production, expressed in kg per ton, respectively.

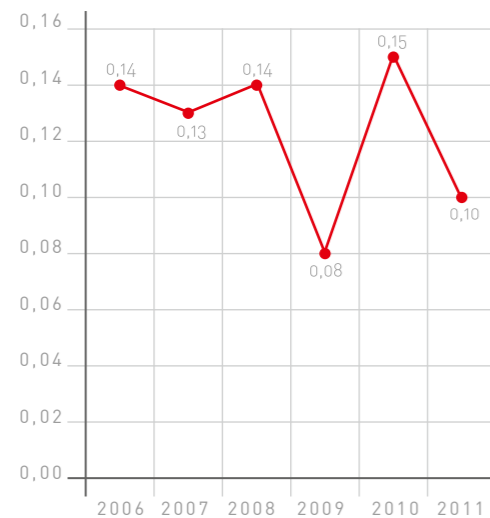
The residues indicator shows the proportion between the total of generated residues, in kg, and the production, in tons. Energy consumption is represented in proportion to the energy consumed, in Kj, and the production, in tons.

Since the companies are currently sending all their liquid effluents to SIMRIA - Multimunicipal Sanitation System of Ria de Aveiro, the liquid emissions amounts are not mentioned. If you wish to check all the CQE's performance indicators, you can do so at the site www.pacopar.org.

AIR LIQUIDE

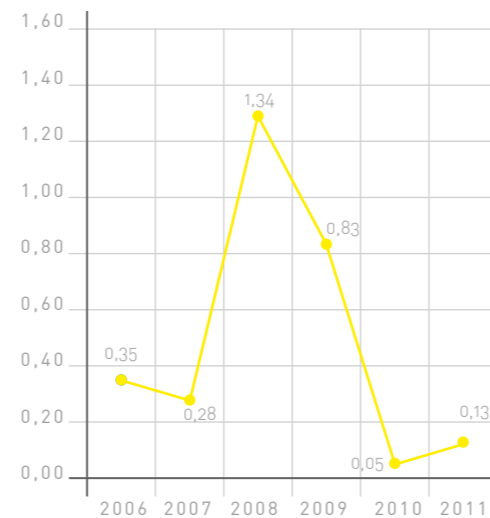
ATMOSPHERIC POLLUTANTS EMISSIONS

Year 2011 presents a decrease in gas emissions when compared to the previous year, evidencing a performance improvement in this area.



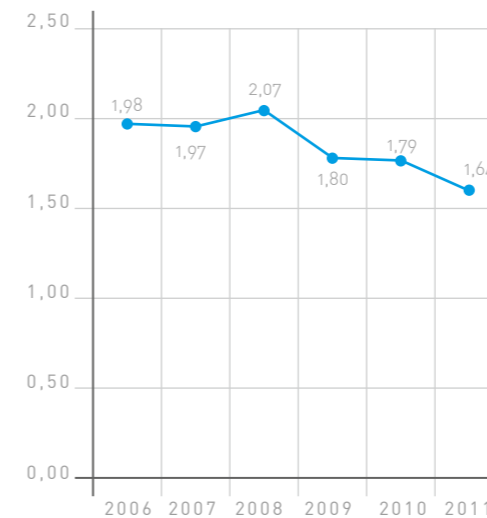
SOLID WASTE

Due to the annual stop in November, solid waste produced suffered an increase when compared to the previous year, thus translated into the increase expressed on the chart, since the production level was similar to the previous year.



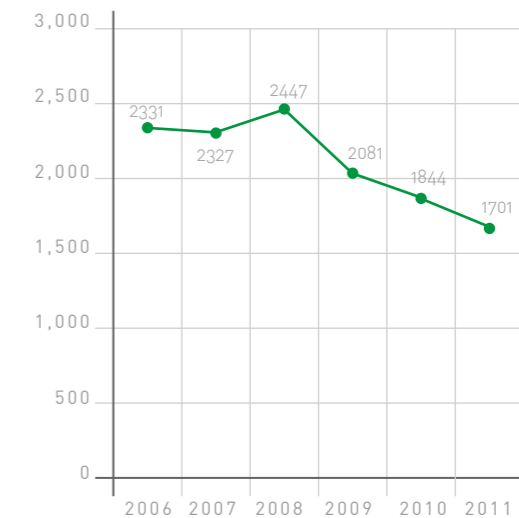
WATER CONSUMPTION

The consumed water ratio *versus* production shows an improvement when compared to the previous year.



ENERGY CONSUMPTION

The consumed energy ratio *versus* production shows an improvement when compared to the previous year.

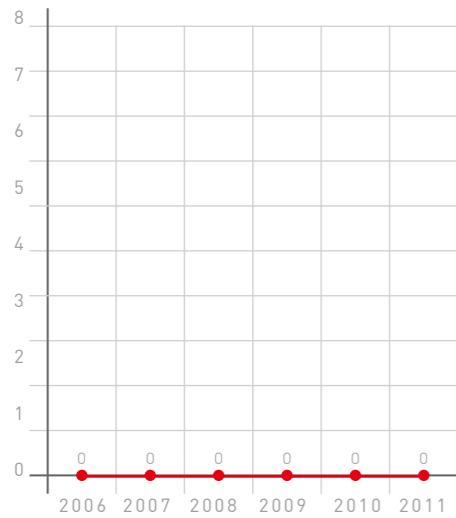




AQP

ATMOSPHERIC POLLUTANTS EMISSIONS

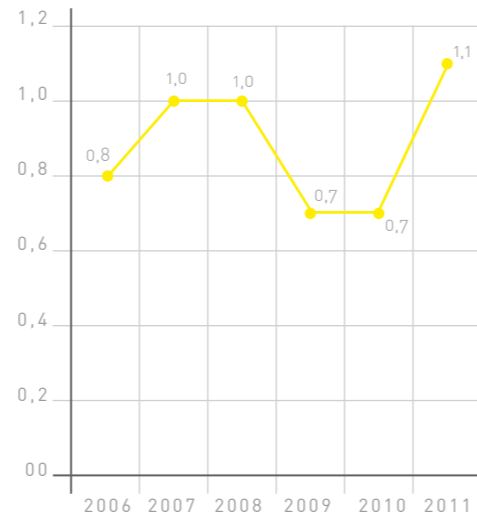
We are still recording low levels of atmospheric pollutants, which have characterized the company's activity.



● Emissions Kg / production ton

SOLID WASTE

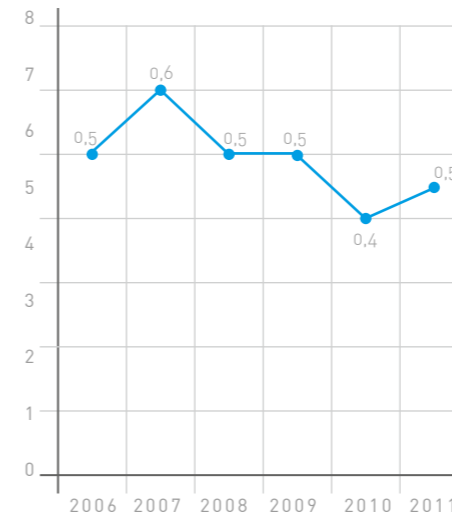
The increase in solid waste in 2011 was mainly due to an increase in the manufacture of products that generate a greater amount of waste in the production stage.



● Waste Kg / production ton

WATER CONSUMPTION

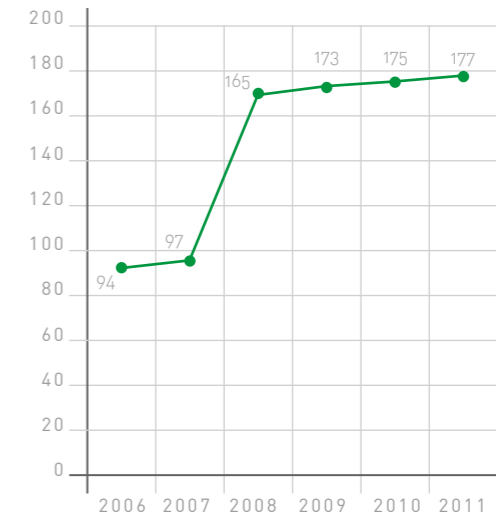
Water consumption has remained within the usual and expectable parameters. Small fluctuations are caused by the variations in percentage of the distinct types of products manufactured, since each product is associated to a specific consumption.



● Water m3 / production ton

ENERGY CONSUMPTION

Energy consumption has remained within the usual and expectable parameters. Small fluctuations are caused by the variations in percentage of the distinct types of products manufactured, since each product is associated to a specific consumption.

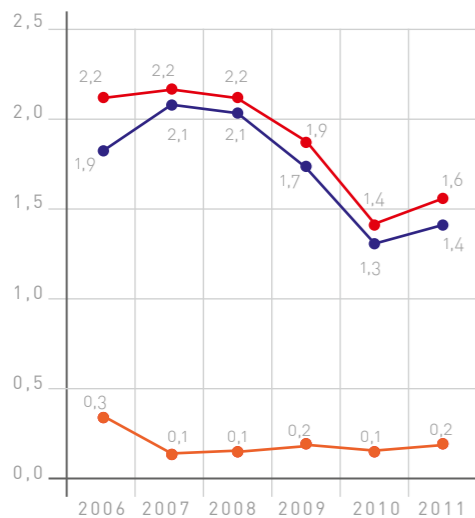


● Energy Mj / production ton

CIRES

ATMOSPHERIC POLLUTANTS EMISSIONS

Main emissions contribution coming from the production facilities of steam and electricity (BAMISO).



● Emissions Kg / production ton
● CIRES Contributions ● BAMISO Contributions

SOLID WASTE

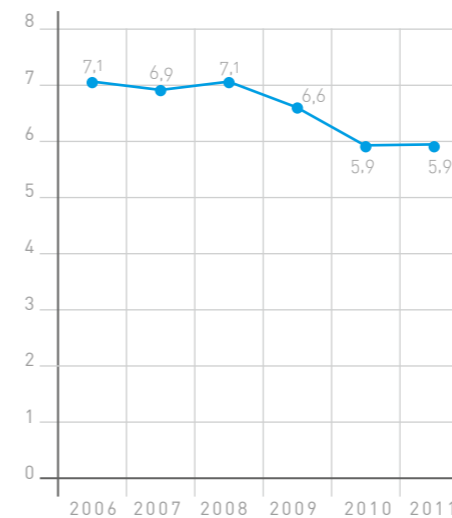
Mostly harmless PVC waste used by the manufacturing of plastic articles with relevant commercial value.



● Waste Kg / production ton

WATER CONSUMPTION

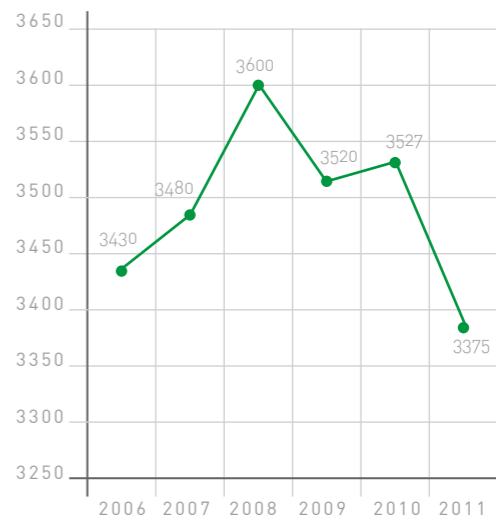
The specific consumption is identical to last year's thus expressing similar efficiency in the processes for the treatment and use of water at the plant.



● Water m3 / production ton

ENERGY CONSUMPTION

The results of the last year express the implementation of the remaining measures foreseen by the PRCE - Plano de Racionalização do Consumo de Energia (National Plan for Energetic Consumption) (2007-2011).



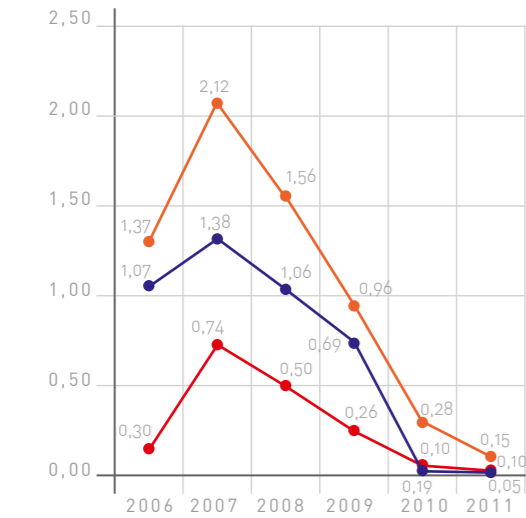
● Energy Mj / production ton



CUF

ATMOSPHERIC POLLUTANTS EMISSIONS

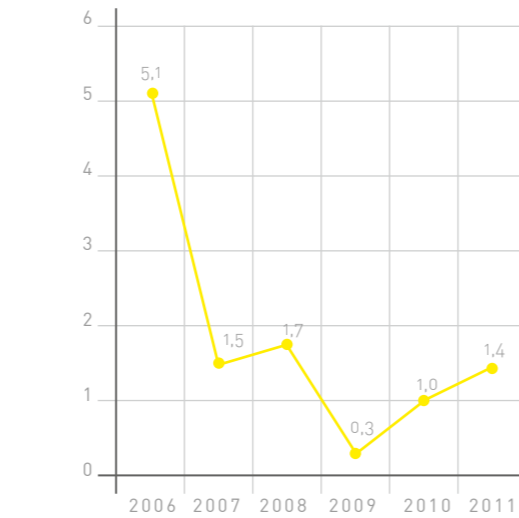
The tendency to reduce the emission of atmospheric pollutants is still confirmed.



● Emissions Kg / production ton
● ECE Contributions ● CUF Contributions

SOLID WASTE

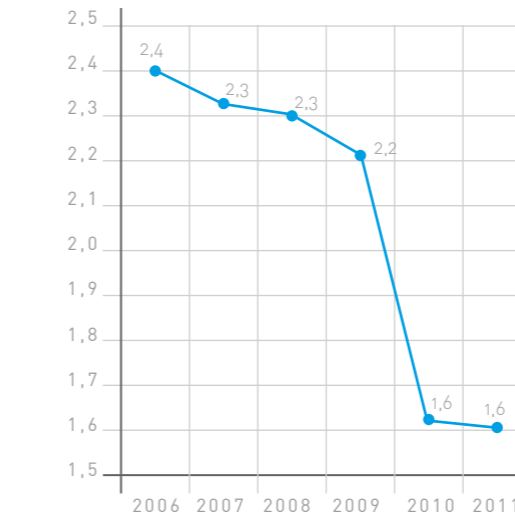
Waste production has been steady in the last few years.



● Waste Kg / production ton

WATER CONSUMPTION

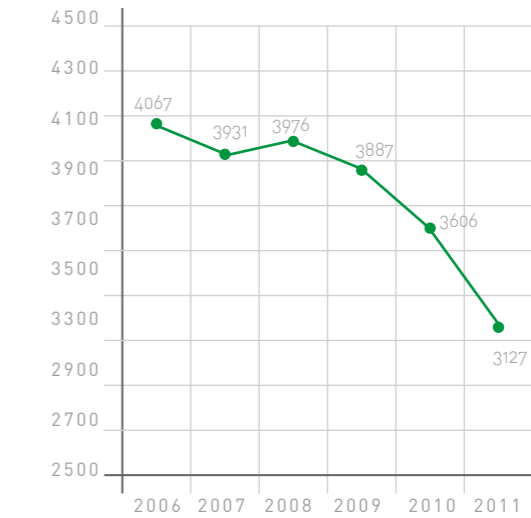
Water consumption in 2011 kept similar to 2010, after having registered a significant decrease.



● Water m3 / production ton

ENERGY CONSUMPTION

One more year of good performance in energetic management, fruit of the full commissioning of facilities that are more efficient in managing energy (new Nitric acid plant).

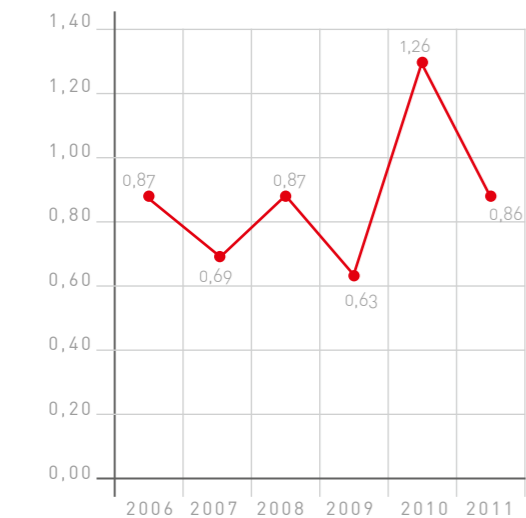


● Energy Mj / production ton

DOW

ATMOSPHERIC POLLUTANTS EMISSIONS

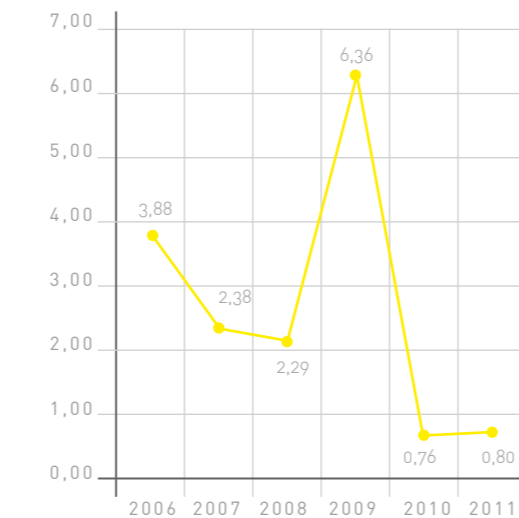
The fall in total gas emissions is related to a decrease in the NOx parameter emissions, derived from the incineration activity.



● Emissions Kg / production ton

SOLID WASTE

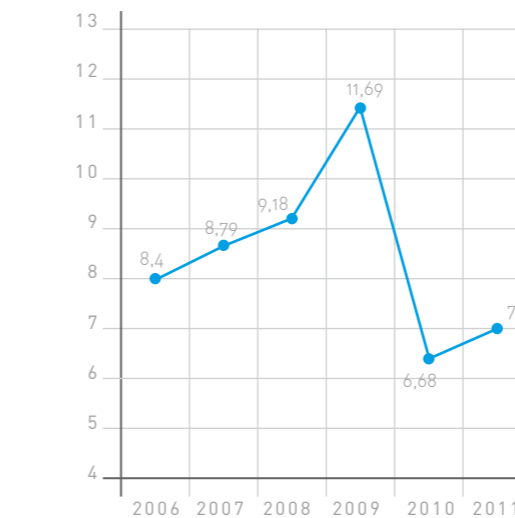
The volume of solid waste produced and recycled or eliminated in a landfill has remained more or less constant in the last 2 years. For this chart, only the volume of waste produced that is destined for recycling and landfill elimination is accounted.



● Waste Kg / production ton

WATER CONSUMPTION

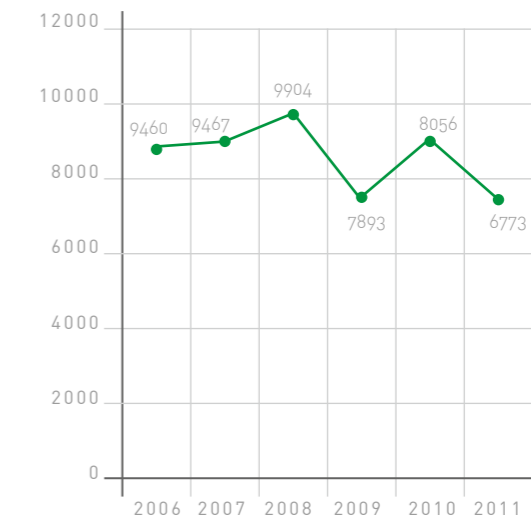
Water consumption has remained the same in the past 2 years.



● Water m3 / production ton

ENERGY CONSUMPTION

Energy consumption has remained the same in the past 2 years.



● Energy Mj / production ton



PACOPAR BRIEFS

PACOPAR MAKES HISTORIC ARCHIVE AVAILABLE TO THE PUBLIC

On 13th January 2011, PACOPAR has signed a protocol with the Estarreja City Council to ensure the handling, custody, maintenance, and access to its historic documentation in the Municipal Archive. The protocol, signed by the president José Eduardo de Matos and the Panel's secretary at the time Luís Ferreira, fulfils the necessity of gathering the entire Panel documentation in one single location, which, until now, had proven difficult due to the nature of its management, subject to biannual alternate mandates by the companies of the Estarreja Chemical Complex. After duly handling and cataloguing the documentation, the assets will be made available for public consultation.



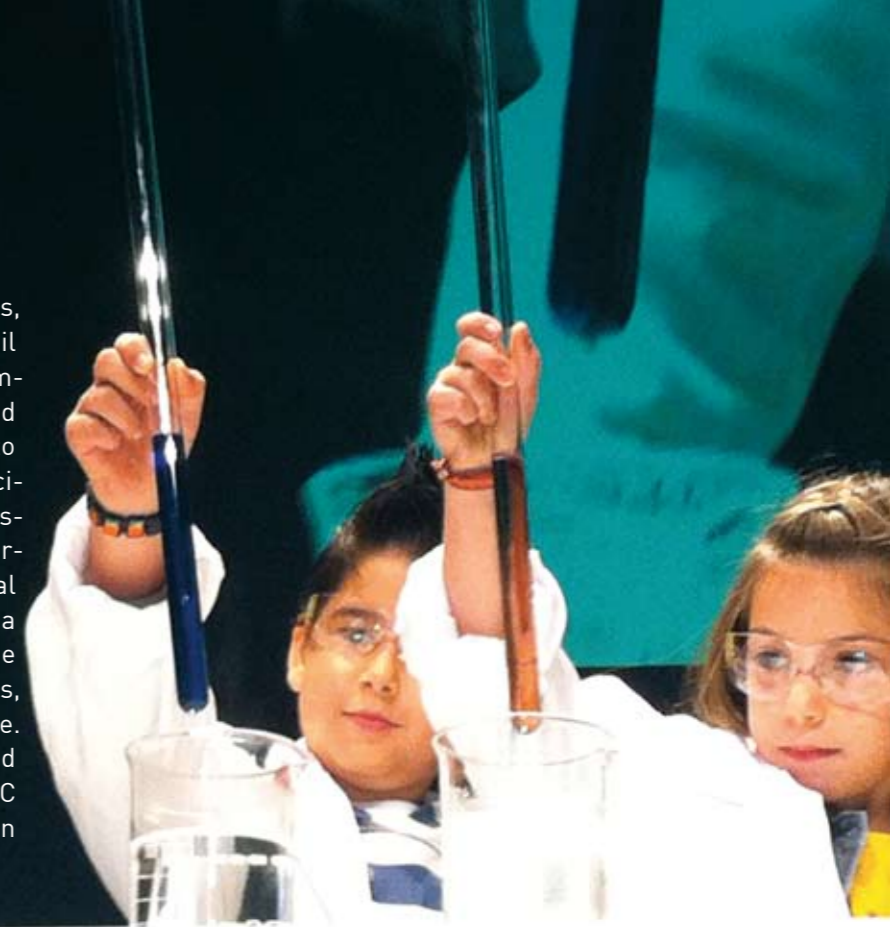
PACOPAR COMPANIES SUPPORT 21 PROJECTS IN ESTARREJA WITH 75 THOUSAND EURO

PACOPAR member companies have supported, in 2011, with 75 thousand euro, 21 projects in the areas of society, education, sports, safety and civil protection, to several entities in the Estarreja municipality, thus exceeding the amount offered and the number of entities supported in 2010 (73 thousand euro and 13 entities). About 50% of the subventions were destined to social support projects, 26% for the communitarian and civil protection areas, 20% for education and 4% for projects connected with sports activities. The annual financial support program is promoted by the PACOPAR companies, with the purpose of assisting in the realization of non lucrative projects that contribute to improve the quality of life for the local community.



CHEMISTRY WEEK WITH THOUSANDS OF STUDENTS

Air Liquide, AQP, Cires, CUF and Dow companies, working together with the Estarreja City Council (CME), have promoted a week dedicated to chemistry from 11 to 14th October 2011, which counted on the participation of over 3 thousand primary to high school students from the Estarreja municipality. The event was held at Cine-Teatro de Estarreja, and took place in the context of the International Year of Chemistry (IYC). The educational show "Química por Tabela 2.0" was on scene, a work of Fábrica - Centro de Ciência Viva of the Aveiro University, with two daily presentations, and entirely dedicated to the Chemistry theme. With this initiative, the chemical companies and the CME have joined the celebrations of the IYC decreed by UNESCO and the International Union of Pure and Applied Chemistry.



CONTINUATION OF ENVIRONMENTAL STUDIES TOGETHER WITH UA

In 2011, the Aveiro University (UA) has presented the Panel with the results of the 2nd stage of the studies on "Evolução Espaço/temporal do Grau de Contaminação da Zona Envolvente do Complexo Químico de Estarreja" (Time/space Evolution of the Contamination Degree of the Surroundings of the Estarreja Chemical Complex). This stage has analyzed the presence of certain chemical elements in the urine of young people resident in Estarreja, compared to the population of another municipality. After the results systematization, a non technical report will be prepared, and made available on the internet at the Panel's website. The Panel has already granted support for the 3rd stage of this research project. UA has

also presented the results of the Master's Thesis "Contributo para a Gestão da Qualidade do Ar em Estarreja" (Contribute to the Air Quality Management in Estarreja), which has also been supported by the Panel. The chemical companies of PACOPAR are also collaborating with the project "INSPIRAR - Qualidade do Ar, Exposição e Saúde Humana em Zonas Urbanas Industrializadas" (INSPIRE - Air Quality, Exposure and Human Health in Urban Industrialized Areas), an initiative of the UA. In the scope of this project, the companies have offered the services of their collaborators to the elaboration of tests and surveys.

PACOPAR MAKES 10 YEARS BALANCE

In 2011, PACOPAR has completed the first decade of its existence. To signal PACOPAR's anniversary,



last year's edition of the magazine was dedicated to the history of the Panel and to reflect on its evolution and future. One of the unmissable milestones of the Panel was the attribution of Prémio Europeu de Atuação Responsável (European Award for Responsible Care) by CEFIC – European Chemical Industry Council.

PROJECT RESPIRA BROADENS THE HORIZONS OF PADRE DONACIANO STUDENTS
Project Respira (Breathe), from the school Padre

Donaciano de Abreu Freire, of Agrupamento de Escolas de Estarreja (Group of Estarreja Schools or AEE), consists in artistic experiments from students through the creation of a dance show. This project intends to create a significant improvement in behavior, and in the compliance with rules, as well as, and above all, to reinforce the team spirit. The initiative has integrated the subjects: Educação Musical (Musical Education), Educação Visual e Tecnológica (Visual and Technological Education), Ciências da Natureza (Natu-

ral Sciences) and the curricular area of Formação Cívica (Civic Education).

“Moinhos da Nossa Gente” (Windmills of our People) was the name of the nativity scene open to the public last Christmas, at school EB1 Senhora do Monte of the AEE. Apart from the tribute made to the windmills in Estarreja, a heritage of huge importance to the locals in the past, the nativity scene got families involved in its creation, with the parents' participation, and was also an ecology lesson, since the scene was built from recycled materials.

AGRUPAMENTO DE ESCOLAS DE PARDILHÓ (GROUP OF PARDILHÓ SCHOOLS) INCREASINGLY GREENER

The Agrupamento de Escolas de Pardilhó takes part in Escola Eletrão since 2009, with the project Escola Eletrão, of the B Group. This school year, the school community has participated with great endeavor in gathering old electrical and electronic equipments for recycling. On the 16th December, Bandeira Verde (Green Flag) was awarded to Agrupamento de Pardilhó, to acknowledge their efforts in working in the area of environmental education/education for sustainability, according to the methods set out by the Eco-Escolas Program. This flag certifies the existence of a Coherent and Quality Environmental Education in this group of schools.

UA - THE BEST PORTUGUESE UNIVERSITY IN 2011

In 2011, the Aveiro University (UA) has been deemed one of the best in Europe, and the best in Portugal, according to the ranking of the British magazine Times Higher Education. In this ranking, that rates 400 of the best universities in the world, 4 Portuguese universities have been included, and the UA scored the highest position, in 304th place. Created in 1973, UA soon became one of the most dynamic and innovative universities in the country. With approximately 15 000 students enrolled in graduation and post graduation courses, UA soon became relevant in the landscape of Portuguese universities, being at the forefront in what concerns the quality of the infrastructures offered, of the research conducted, and the excellence of its teachers.

ESE CONTINUES TO EDUCATE ON BEHALF OF HEALTH

The Education Team for Health of Escola Secundária de Estarreja (Estarreja High-school) is still developing the work from previous years, implementing and developing activities in the scope of citizenship, sexuality, food, assertive choice, first aid, dating violence, and domestic violence. The several actions have been aimed at students and the educational community in general. Among the activities developed there's the acquisition of ecopoints and their distribution within the school, the celebrations of the “no smoking day”, the promotion of healthy eating habits - working inside the teachers room and proposing a change in the eating habits of the school community -, dental screening for students born in 1998 and the creation of a free weekly class on physical education, with teacher Ana Almeida, for teaching and non teaching personnel. Several training actions have also been ministered for teachers and students. Several entities have contributed to the realization of all these activities.





ESTARREJA - A NATIONAL EXAMPLE OF CULTURAL LOCAL POLICIES

"Estarreja is one of the best examples in Portugal of how a medium size municipality manages to stand out at a national level, through an urban project". The new Cine-Teatro (CTE) program director, Fátima Alçada, was referring to the investment the City Council has made in culture, in the opening of the new season. The last months of 2011 have been brightened by the presence of Luísa Sobral, Áurea or Pedro Burmester. The eclectic programs, transversal for the distinct audiences of the CTE, are associated with local productions, leading to the conclusion that *"community groups don't have such a significant presence in other areas"*. To know more about the activity of Cine-Teatro see the information available at the site www.cinetatroestarreja.com.



TJA IMPROVES FLEET MANAGEMENT

The company Transportes J. Amaral has been operating with a fleet management solution for approximately two years, mainly in the transportation area. However, they are looking for a solution for the location and communication with vehicles issues, and are currently in a pilot stage of a new system on five vehicles and two companies. With this system, TJA, the transportation company that is reference for the Estarreja Chemical Complex, expects to achieve reliable communication, through which full addresses, references for loading/unloading, dates and time are made available in the vehicles, so that drivers may have all the useful information available to perform their tasks efficiently. Some of these tools may also be shared with customers, minimizing the expenses and time that are currently invested to supply such information.



THE AMUPB DISCUSSES ENVIRONMENT, HEALTH AND SAFETY IN ESTARREJA

The Associação de Moradores da Urbanização da Póvoa de Baixo (Association of Residents in the Urban Area of Póvoa de Baixo or AMUPB) has made, in 2011, informational and debate sessions with a few experts in environment, health and safety, with experiments from studies developed in the Estarreja area. The purpose was to inform and share past and present realities of the industrial activities regarding environment, health and safety with Estarreja residents living closer to the Chemical Complex. This initiative had the support of Miguel Oliveira e Silva, environmentalist of Quercus and Associação Cegonha, and of Ofélia Almeida, health officer of the Estarreja municipality (both PACOPAR members), and Lúcia Fernandes, a researcher of the Coimbra University. Apart from the experts' contribution, there was also a representative of the community present in each session, who was able to offer his/her vision on the themes being discussed.

OVER THE LAST TEN YEARS, THERE HAS BEEN A 10% POPULATION DECREASE IN ESTARREJA

According to the 2011 censuses, the population resident in Estarreja has suffered a 10% decrease between 2001 and 2011, going from 28.182 to 26.957. A 1% fall was registered for all age groups, except for the ≥ 65 age group, which has seen a 1.4% increase. Concerning the total dependency index, the effort created by society on the active population as suffered a 4% increase, now being at 53%. Unless the decrease seen in the birth rate is reverted, this indicator tends to get worse in the future. The ageing index increased from 117% to 137%. The ageing of the population mirrors one of the demographic phenomena of modern society, which reflects on a socio-economic level and impacts on social, health and sustainability policies. The potential sustainability index has decreased from 3.7 to 3.2, which means there are 3.2 assets per individual ≥ 65 years old. At a national level this index is at 3.4 and in central Portugal at 3.8.

SEMA - A PERMANENT BET ON TRAINING

The bet SEMA - Associação Empresarial (Business Association) has been making in training actions, as an element of competitiveness between local companies, has been incremented in the past few years. In 2011, they created the Plano Integrado de Formação (Integrated Training Plan), with the cooperation of the Confederação do Comércio e Serviços de Portugal (Portuguese Confederation of Commerce and Services), at virtually 100%. The training actions have been extended to the four municipalities of SEMA (Estarreja, Albergaria a Velha, Murtosa and Sever do Vouga). Last year, SEMA had 481 trainees in co-financed training courses. One of the new offers from SEMA is training for heavy goods vehicles and public transportation drivers. The number of associated members of SEMA has been continuously increasing. In 2010, there were 2156 members, and in 2011 they reached 2278. In 1996, SEMA had only 171 members.



ENJOY THE LONDON OLYMPIC GAMES
TO ENCOURAGE SPORTS

PLAY SPORTS IN ESTARREJA



In order to exercise in the most simple, spontaneous and inexpensive way, just dress comfortably, put on tennis shoes, and go outside for a walk, or jogging. In Estarreja, there are privileged locations for outside sports, like the pedestrian circuit in Parque do Antuã or the courses of BioRia. However, if you wish to enrich your sports practice, and cannot make a commitment with a gym or other similar institutions, there are other options in the municipality that allow you to occupy your free time exercising. This year of Olympic Games can provide you with the right incentive to start practicing sports. We provide some suggestions.

If you enjoy walking, Centro Municipal de Marcha e Corrida (Municipal Centre for Walk and Run) organizes regular walking and race walking for the population. These initiatives are normally open from October to June. Since there aren't any set dates for these events, you must keep track of municipal information releases, or check the website of Escola Municipal de Desporto (Municipal School of Sports). Sometimes, race walking events may have a philanthropic intent, where a symbolic subscription fee is offered to a local charity institution.

Estarreja has several fitness circuits for walking, running and exercising. In Beduído, the Parque Municipal do Antuã offers a pedestrian circuit, a children's playground, and fitness machines to practice gym. In the summer, when a dam is placed in the river, there are conditions for canoeing. In the suburbs, there are the Póvoa de Baixo circuit (offering not only a pedestrian circuit, but also an All-terrain bikes track) and the Avanca circuits - the circuits of Parque do Mato and Associação Atlética de Avanca (Athletic Association of Avanca).

In order to practice speed athletics there's the Eloi de Almeida track, in the Parque Municipal do Antuã, or the Associação Atlética de Avanca. To race on wheels, the Associação Desportiva Arsenal de Canelas (Sports Association of Canelas) hosts a roller skating track. For those who prefer skate, there are two options: the tracks in Parque do Mato, in Avanca, and in Urbanização da Teixeira. You can also benefit from the geography of Estarreja while experiencing canoeing in Ribeira da Aldeia, Pardilhó, which is managed by Saavedra Guedes.

FOR MORE INFORMATION ON THE SPORTS OFFERS IN ESTARREJA SEE:

Escola Municipal de Desporto (Municipal School of Sports): <http://emdestarreja.net/>
Portal Desportivo de Estarreja (Estarreja Sports Portal): <http://pdest.net/>
Associations and Community groups in the CME (Estarreja City Council) Website: http://www.cm-estorreja.pt/associacoes_colectividades.php

However, if you prefer swimming to rowing, you can always swim at the Complexo de Desporto e Lazer (CDL or Leisure and Sports Complex) of Estarreja or at the Piscina Municipal de Avanca (Avanca Municipal Pool), when these are open to the public for free swimming. Since last year, Estarreja municipality offers a new infrastructure, with unique conditions for swimming lovers. And there's more! At the CDL, you will also be able to relax at the Spa, which offers hydro massage, Jacuzzi, and Turkish bath. Through pressure and water's thermal action on the skin and tissue, hydro massage helps to improve superficial circulation, thus allowing for a better oxygenation of the skin, muscular relaxation and a reduction of subcutaneous fat. In the Turkish bath, abundant perspiration helps to clean the pores, to eliminate

impurities and to free the body from toxins. This is a practice that helps fight fluid retention and treat eczema and acne. The spa is open during the CDL open hours.

You can also practice Squash for free here. You can rent courts, rackets, balls and glasses. There's nothing missing: just gather some friends and enjoy the ball's stunning speeds. Squash is a sport where you exchange high intensity and short duration balls.

The lack of places to practice sports for free in Estarreja is certainly not an excuse to miss out on physical exercise. The suggestions made may turn your leisure time into healthy time, both in a physical and psychological perspective. We expect you to be inspired by the excellency of the athletes in London this year.





IN A TIME OF DECLINE IN THE MOLICEIROS CONSTRUCTION, THERE ARE THOSE WHO WISH TO CONTINUE THIS ARTWORK

VISIONS OF A MASTER FROM PARDILHÓ



“António, when I was a young girl, in Pardilhó, a local girl had to date a musician or a shipwright, since there were no other boys available”. Master Esteves remembers his grandmother’s sayings, and the time when he was 10 years old, and begun working as an apprentice in the construction of moliceiros (traditional boats from Aveiro region), in one of the 7 carpentry shipyards in Pardilhó. 60 years later, even though immigration has led him to build boats in “another world”, the strong pull of tradition drew António Esteves back to the art of Master shipwright, and he is currently the owner of one of the two shipyards still active in Pardilhó.

We came to find him in Ribeira de Pardilhó, working on a repair that has broken his heart. “It had left the yard last Tuesday, brand new and painted, only to return on Wednesday, with a broken bow”, he regrets, and confesses: “You can’t imagine what I went through yesterday. I didn’t even know where to begin. It is harder than to build a new one.” The last moliceiro he made was destined to a tours company of Aveiro. Now, tourism is what originates the small amount of orders he has. The moliceiro slowly detached from its original role, and appears renewed in an activity that makes it more profitable nowadays. “No one gathers seaweed for agriculture any more. Nobody works in agriculture like that. This was very hard work.” Seaweed from the Ria de Aveiro was the agricultural fertilizer of the past. And the moliceiro is a heritage of the union between land and sea.

In the 50s, young António Esteves, apprentice at Henrique Lavoura’s shipyard, in Pardilhó, had his hands full. “We always had boats to build. As soon as we finished one, another one came”, he recalls: “the Aveiro captaincy says there were over a thousand boats circulating at the time”, both moliceiros and bateiras (another typical boat from Aveiro region). But local dictatorial hardships made the calling of the United States appealing. In 1973, Esteves, already a Master, emigrates. This transition would also prove to be from manual to industrial work. António was going to build speedboats and yachts. The Master becomes numb, and the expert in glass fiber emerges.

Back in Pardilhó, in the 90s, after “4 years struggling with the captaincy to get permission to build glass fiber speedboats”, fate, or a greater will based on a feeling of belonging and tradition, intervened. After getting permission, he arrived at the shipyard

TO VISIT THE SHIPYARDS AND GET TO KNOW MORE ABOUT THE MOLICEIRO BOAT:

Amigos da Ria e do Barco Moliceiro (Association of Friends of the Ria and Moliceiro boats): <http://www.net-moliceiro.inovanet.pt/>
telf: 234 868134 ; 919 920 793

Junta de Freguesia de Pardilhó (Town Council of Pardilhó): <http://www.jf-pardilho.pt/>
Museu Marítimo de Ílhavo (Nautical Museum of Ílhavo): <http://www.museumaritimo.cm-ilhavo.pt/>

and found his old Master, Henrique Lavoura, asking him to build a moliceiro for a customer from Murtosa. “Well, I made that one, and many others have followed.” His Master’s hands locked away the standardized plans for the glass fiber speedboats.

Weren’t you nervous about returning to an art so many years later? “No, no! What I do remains. I have always worked with pleasure and I also owe a lot to this boss. I started when I was 10 years old, and I was only 16 when he started allowing me to perform the hardest task, raising the boat”, recalls. Making that upward bow that makes the moliceiros in the Ria so beautiful. Except for the decorative artwork, since he was “never very good at drawing”, the whole boat is made at the artistic hand and keen eye of Master Esteves. In order to build the

UNIQUE PARTICULARITIES OF THE MOLICEIRO

Half-moon shaped, the moliceiro boat was given this name because it was used to gather brown seaweed (“moliço” in Portuguese), in the area of Ria de Aveiro. The upward bow, bright colors, and a lively decoration give an exotic style to this boat, a descendent of the Mesopotamian type of wooden board canoes. The moliceiro is about 15 meters long and is built from pine wood. The painted motifs, either of a traditional inspiration or depicting humorous images allusive to sexuality, make the moliceiro a unique boat. In order to make seaweed gathering easier, the boat is very low on the sides. The bottom is flat and with a small hull, in order to adjust to the low depth areas of the Ria. The construction method is typical from the region, especially in the areas of Pardilhó, Murtosa and Ílhavo. The art of shipwright Master, maker of moliceiros, has been passed on through generations, but is currently facing extinction. In Pardilhó, there are still two shipyards, the ones belonging to Master Esteves and to Master Felisberto, located in Rua do Saltadouro and Rua das Bulhas, respectively. There, you will also be able to witness the singularity of the art of making these boats.

moliceiro’s “caverns” (each of the pieces installed on the keel, the part between the bow and the stern - as if this was the boat’s skeleton), which are round at the edges, you must know how to observe the wood and benefit from its natural shapes. “When I go looking at trees, I already see the potential caverns in them.” One takes advantage of the bond between the tree’s trunk and a twig or a root.

Once the wood has been brought to the shipyard, it’s time to roll up the sleeves. “We have a template and we build one cavern at a time.” After this “skeleton” is made, all pieces are cut and joined together from the bow to the stern. Master Esteves gives them his own stamp. “The crew slept on the bow while gathering seaweed. Patches on the wooden boards would open in the heat and dripped rainwater. With fiber everything is well sealed.”

If people in the past had glass fiber when they had to spend nights gathering seaweed in the Ria, it would have been so much easier. But times do change! And change brings both benefits and losses. How much longer will Master Esteves continue to work? “Until I can’t do this anymore, that’s for sure!” Besides António, there are two more Masters in Pardilhó, but only one of them is still in the business. “Sometimes I wonder, I have an 18 year old grandson, and I would teach him, but he doesn’t want to learn. I do want him to be a doctor, but wouldn’t it be beautiful if he also knew how to make a boat?”





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