



BOATING
IN FRANCE



*Dynamism and
spirit of conquest*

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Full ports, yards taking on labour, creations exported worldwide ... French boating has the wind in its sails. Its excellent state of health is based on the expertise of companies that is demonstrated by a multitude of professions: boatbuilding, sailmakers, fittings, maintenance yards, infrastructures... It is also being carried along on the wave of the tradition for long-distance offshore racing, which is stimulating the industry by promoting research into design, innovative materials and electronics. In another area altogether, the way environmental matters are dealt with demonstrates French companies' ability to adapt, anticipating new regulations by developing their own construction methods and coming up with innovative products and systems. Armed with its considerable experience, leading the way in numerous markets and more than capable of handling the demands facing it, the French nautical industry is now preparing itself to conquer emerging markets.

Inaugurated in 1978 and held annually in July, the Tour de France à la Voile sees crews Channel down to the French Riviera, calling in at around a dozen French coastal resorts on the way.



Fair weather ahead for French boating

In 2006, the French nautical industry comprised 4,867 companies, employing 45,000 people and generating turnover of 4.65 billion euros. These excellent figures are emblematic of a sector, in several areas of which France is a world leader. The status report:

A COUNTRY LOOKING OUT TO SEA

Bathed by the English Channel, the Mediterranean Sea and the Atlantic Ocean, and watered by dozens of rivers and streams, France has a peerless maritime heritage, and it is probably this geographic context that explains the French passion for boating. Over 900,000 boats (of all types) are currently registered in France and it is estimated that some 500,000 are used regularly – one of the highest rates in the world. Thanks to the tireless energy of the Fédération française de voile (FFV), which has nearly 280,000 licensed members, and the dynamism of the thousands of club volunteers, scarcely a weekend passes in France without a regatta. The French people have had a love affair with anything nautical for half a century, and as early as the sixties, it began to generate a dense economic network. The major French yards (Bénéteau, Jeanneau, Dufour, Fountaine Pajot, Couach, Amel, Catana, Zodiac, Alliaura, etc.) occupy centre stage, but behind them come a whole range of complementary trades and industries, with at least ten being part of the French Nautical Industries Federation, namely builders, engine-makers, sailmakers, fitters, equipment manufacturers, etc.

FRANCE, THE WORLD LEADER IN SAILING, INFLATABLES AND BOARD-RIDING SPORTS

Popularised throughout the world by ambassadors such as Eric Tabarly, Bernard Moitessier and Olivier de Kersauzon, French boating has always had the wind in its sails. In 2006, sailboats building accounted for over 60% of the turnover from French production of recreational boats, i.e. almost 7,000 units. The Bénéteau Group is now the world number one in this sector. France is the world leader in the mar-





Fair weather ahead for French boating

In La Rochelle (Poitou-Charentes), in response to rising demand for prestige catamarans, Nautitech opened a brand new yard in 2005. The Nautitech 40 and Nautitech 44 production lines are over 100 metres long, allowing them to produce one catamaran every two weeks.

ket for inflatable craft, largely thanks to the dominance of the Zodiac brand. It also leads the world in board-riding sports and related activities (kitesurfing, windsurfing, kayaking, etc.). In this area, the Bic Sport group has built itself a unique reputation by applying mass-production techniques in a sector that usually tends toward custom-made products (boards made to measure in single units).

BÉNÉTEAU, THE BOATING SYMBOL THAT HAS BECOME AN INDUSTRY

In a little over 100 years, the small Bénéteau boatyard has become a global giant of the nautical industry. The Vendée-based company's story began in 1884, when Benjamin Bénéteau, a naval architect, invented the first fishing boat with sails. His descendants launched themselves into the world of sailing, with the bright idea of using polyester in the construction of their boats. In 1976, the First range embodied the popularisation of the new leisure activity, and put the company on the world map. In less than 20 years, the Bénéteau Group was being quoted on the stock exchange and making an impression on the American market. Already the world's leading sailboats builder (since 1982), in 1994, the company became the leader in European boating and the top French builder of professional fishing boats. The group, which has since bought up its main French rival, Jeanneau, is continuing to diversify with its Lagoon catamarans, prestigious Wauquiez sailboats, superyachts CNB, Voyager TM rapid passenger ferries, fishing boats and service boats ... It currently employs nearly 6,000 people.

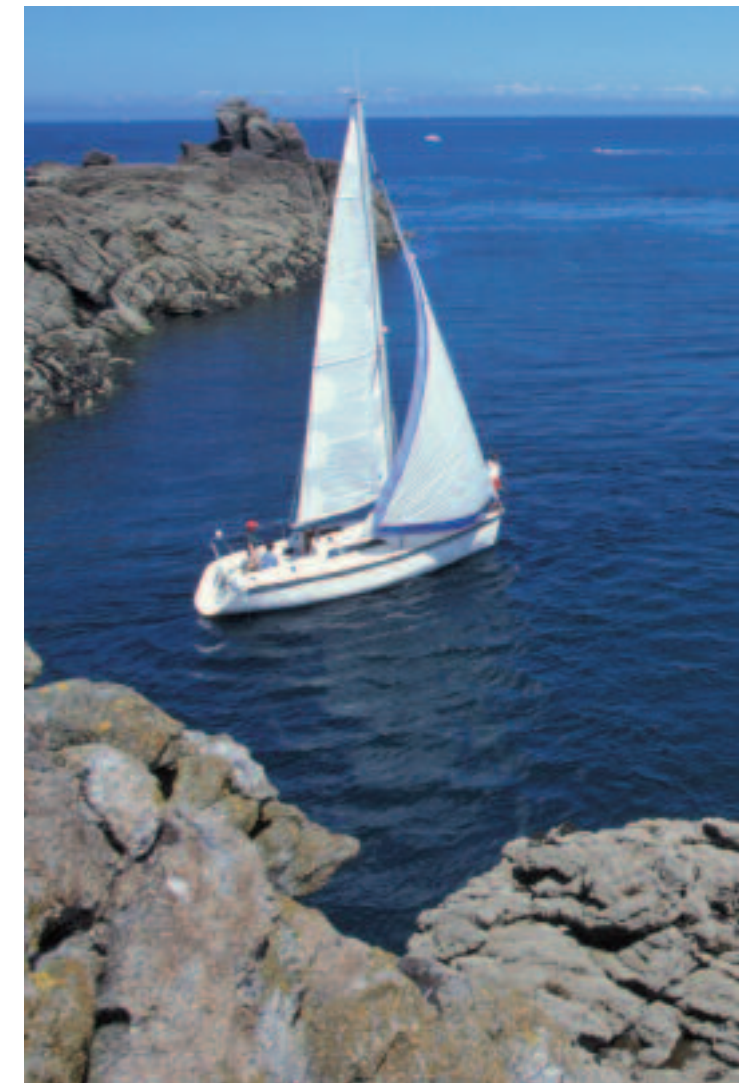
NICHE STRATEGIES:

THE STRENGTH OF FRENCH YARDS

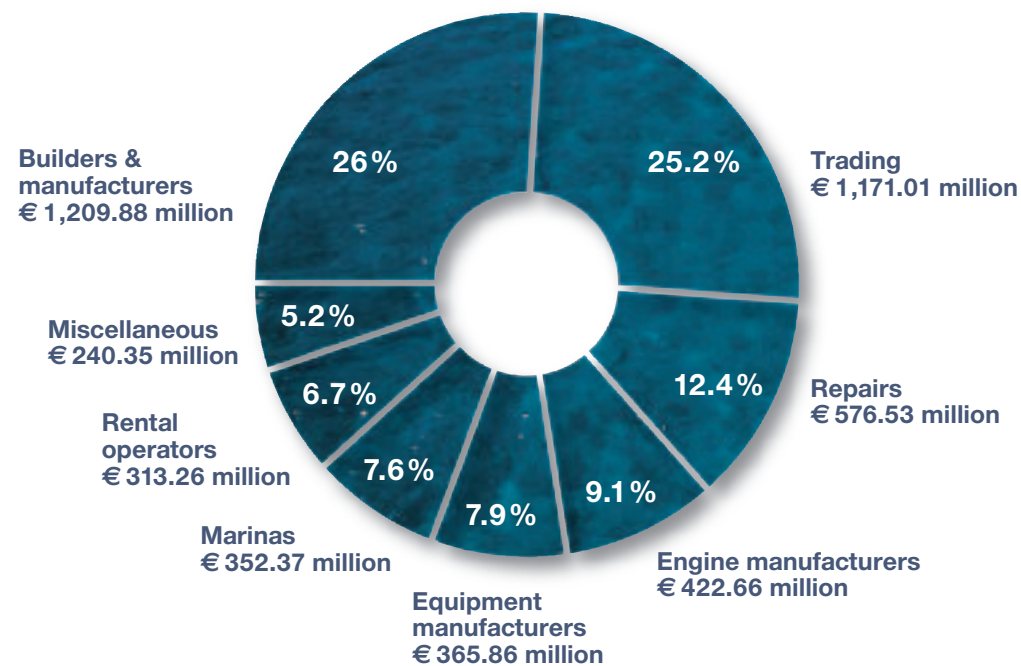
Smaller, more modest French yards are finding their place in the world of pleasure boating. Some, like Dufour, notably, are competing in the live-aboard boat sector, whilst others, like Archambault, Pogo Structures or JPK, have opted to focus on regatta craft. Others are gambling that classicism will come back into fashion. Like the Tofinou, which has been very successful and the many imitations of "cutters", those small typical sailing boats that hark back to a certain period in yachting's history, whilst still using modern production techniques. Other yards have opted to specialise in aluminium keels (Alubat, Allures Yachting, etc.), suited to sailing on the high seas. The catamaran market, meanwhile, has been experiencing very rapid growth for some years now, driven by global brands with a strong reputation for expertise in this particular field (Fountaine Pajot, Catana, Lagoon, etc.).

A VIBRANT MOTORBOATING SECTOR

Accounting for some 85% of the boating market, motorboating remains the dominant industry worldwide. For several years, French companies have been developing very quickly in this area. In 2000, just 35% of sales of motorboats built in France were for the export market, but that figure had shot up to 55% by 2006, making France the 4th biggest country in the world in this area, thanks to the vitality shown by companies like Zodiac, Bénéteau, Jeanneau, Kelt, Arcoa and Couach.



DISTRIBUTION OF TURNOVER ACCORDING TO ACTIVITY:



From mass-produced yachts to custom-built luxury craft, French boatbuilders offer a highly extensive range of products. Opposite: Couach was the world's first boatyard to build craft using Aramat, a fibreglass-based material. The brand is currently developing the "custom yacht" concept, aimed at very wealthy clients for whom the smallest detail is all-important.





Fair weather ahead for French boating

THE BOOM IN SUPERYACHTS

French businesses are also continuing to establish themselves strongly in the superyachts sector, the category where boats have to be over 24 metres in length. Worldwide, only a few units are created every year for wealthy clients. This high-technology sector acts as an ideal shop window for French excellence, mainly through the export of motor yachts or sailing yachts built by yards like CNB (Bénéteau Group), JFA, Garcia, Couach, CMN or distributed by Rodriguez. Alongside this development, various trades have specialised in prestige yachts, notably designers (Marc Lombard, Stirling Design, Van Peteghem Lauriot Prévost, etc.), interior designers (Couedel Hugon design, Franck Darnet Design, etc.) and equipment makers...

For more information about Frenchsuperyachts, log onto: www.superyachtfrance.com/

Sailboats built for the superyacht market currently only account for a small share of the market, but their cutting edge technology makes them an excellent showcase for French expertise. Some legendary races, like les Voiles de Saint-Tropez (opposite), bring together the most beautiful specimens in the world.

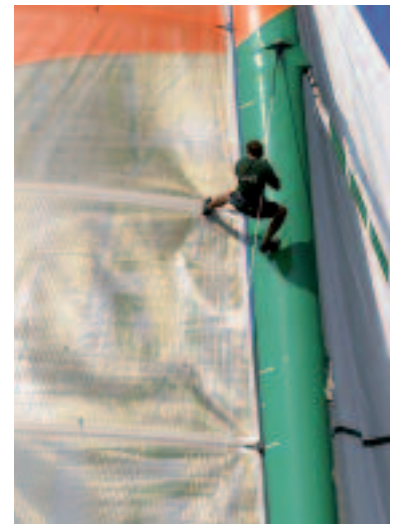
EQUIPMENT ONBOARD BOATS THROUGHOUT THE WORLD

The French nautical industry has all the resources needed to fit out a boat from keel to mast. French sailmakers, particularly companies like Incidences and Elvström, have carved out a fine reputation for all kinds of craft, while French deck equipment makers are also highly esteemed. France is home to mast manufacturers like Lorima, competition winch and pulley specialists such as Wichard or Karver, a young but rapidly growing company, safety equipment designers (Plastimo), rope makers (Lancelin and Cousin), or sailing clothing brands (Guy Cotten, TBS, Tribord, etc.). However, the sector where France excels the most is undoubtedly electronics. NKE, which designs navigational instruments, is a fine illustration of this, as is Navicarte, which produces maps and navigational software, not forgetting Adrena, the regatta software designer...

From sailmaking to deck equipment via marine clothing, all kinds of nautical products are taking advantage of tremendous developments in materials.

Top: the sailmakers Incidences, who are testing their new models on world record-breaking boats.

From left to right: a Bic Sport harness specially designed for practising board-riding sports in complete safety, Karver pulleys adopted on most racegoing boats and the famous Guy Cotten foul weather gear.



SPONSORING: FROM THE DREAM TO MARKETING

Sponsoring has allowed French companies to provide significant backing for the major races. During the Seventies, they took the decision to link up with yachting and, in particular, with offshore racing, whose values they shared: a spirit of adventure, going beyond oneself, solidarity... Of course, they also found ways of making their names known and of informing people about their products. Some of them are associated with technological challenges, such as Areva and its commitment to the America's Cup, or Orange and the Trophée Jules Verne. Unlike other sports, sailing is not just for the multinationals. Who had heard of the small construction company PRB before its double victory in the Vendée Globe? The same popularity is currently being enjoyed by Idec, which has been by Francis Joyon's side during his single-handed round-the-world record-breaking voyages ...





“ 3 QUESTIONS TO Tibor Sillinger ”

Member of the Board of the French Nautical Industries Federation and Chairman of the Paris International Boat Show

How do you explain the dynamism of the boating sector in France?

Tibor Sillinger : Our industry's growth is due to both the French market and export sales. French people are still not flush in terms of boats: For 62 million inhabitants, there are only 900,000 registered boats, with between 400,000 and 500,000 in use. There is great scope for development. As for exports, they are responsible for 63% of French production, with Europe and the USA being the main markets. Our next challenge is to conquer the emergent markets, such as China, India and Brazil.

In which ways can boating be said to be a high potential sector?

T.S. : In terms of absolute value, the price of a boat has not increased since boating started, with boats being cheaper to buy, thanks to the developments made by builders. This evolution of the quality/price ratio is a mechanical factor affecting the way sales evolve. On the other hand, the development of boating in the emergent markets will have a very significant effect on the world market in the years to come. The explosion of the middle classes will change the situation, as it did in France in the Sixties, when boating became a sport for all. Given the speed at which infrastructures are developing in these countries, it's entirely feasible that the Chinese market could eventually represent a higher sales value than all the current French export markets put together.

What are the strengths of the nautical sector in France?

T.S. : The growth experienced by the French nautical industry is based on powerful driving forces. We are the world leaders in the sailing and board-riding sports sectors, thanks in part to the success of our top yachtsmen, such as Tabarly, Moitessier, D'Aboville or Kersauzon. As in car racing, constructors benefit from this reputation. We have a presence at the major trade shows, such as Shanghai and Bombay. Our aim is now to establish relays on-site (both in France and locally). France can also boast a number of superb, globally reputed exhibitions, including the Paris, Cannes and La Rochelle boat shows.

Fair weather ahead for French boating

INFRASTRUCTURE KNOW-HOW THAT IS THE ENVY OF ALL

With over 6,000 kilometres of coastline and 883 seaside towns and villages, France has enjoyed ultra-modern harbour infrastructures for half a century. According to figures compiled by the French Federation of Marinas, there are 261 yachting ports in France. These installations offer recreational sailors over 160,000 berths in fully equipped marinas (sanitary facilities, weather stations, fuel, cranes, shipyards, black water tanks, etc.).

Recent successes include the creation of Port-Médoc in the Gironde estuary (800 berths), and the extension of La Rochelle's Port des Minimes and Port-la-Forêt in Brittany. These major projects are the perfect showcase for French expertise that is the envy of the world. Some countries, like Croatia, are calling on French know-how to build port infrastructures and keep up with the rapid expansion of the boating sector.

YARDS SPECIALISING IN BOAT MAINTENANCE AND REPAIR

All along the coast, repair, maintenance and over-wintering yards are always ready to be of service to boat aficionados of all kinds. They are important places, where clients and suppliers come together to discuss techniques, products and new developments. Over 1,500 companies are operating in this line of business in France, and together account for the sector's third highest turnover (12.4%), after boatbuilding (26%) and trading (25.2%). These yards deal with all kinds of repairs, from fitting a keel to painting, via engine maintenance.



Port Adhoc has developed a network of new generation marinas, based on the American "dry dock" concept. When vessels are not at sea, they are stored onshore in special "boat parks". A boat can be returned to the water in under three minutes, at any time of the year. Three sites are currently operating in France: the marinas at Leucate on the Mediterranean (photo), Soubise on the Atlantic coast and Paimpol in Brittany.

Left: Plans to expand the Minimes marina in La Rochelle, with a thousand new berths set to be created between the sea wall at Bout Blanc and the channel by 2010.

INNOVATIVE SOLUTIONS FOR FREEING-UP MARINAS

In 2003, a strategic study revealed a shortage of 54,000 berths in French marinas. This level of saturation is a major obstacle to the development of nautical industries and tourism. In response, the various companies and organisations involved in the sector set up the Committee for the Development of Yacht Berthing Capabilities (CODCAP). Its main aim is to promote concrete solutions to resolve congestion at certain marinas. Some 7,000 berths are currently being created, mainly by expanding existing marinas. In other cases, wasteland may be renovated or dry-dock storage facilities may be created. The projects take into account of environmental considerations and the need to coexist with other port activities, right from the design stage. If things develop along these lines, France will be excellently positioned to export these new techniques.



A first-rate industry in constant search of innovation

Sailing is, first and foremost, a mechanical sport. Some prototypes break up or capsize, whilst others win races and beat records... It is technology that makes the difference. This capacity for innovation in racing boat construction subsequently benefits the entire nautical industry.

RESEARCH AND DEVELOPMENT AS A PRIORITY

For half a century, there have been some stunning evolutions in sailing, mainly due to the inventiveness of skippers, architects and equipment makers. In 1968-1969, Robin Knox Johnson took 313 days to complete his single-handed circumnavigation. Today, the record is down to just 57 days. Since 1993, the round-the-world crewed record has dropped from 79 to 50 days (an improvement of 30%). There are very few sports disciplines that can boast this level of improvement!

This constant progress is not just one of French boating's main strengths, it is also essential for survival in a sector that is constantly on the lookout for innovation. In fact, French boating is one of those industries that enjoys significant investment in terms of research. In 2004, Research and Development represented 12.7% of the entire amount of investment in the sector (around 1% of turnover). Drawing inspiration directly from cutting edge sectors like the aeronautical or automobile industries, the major boatbuilders have also involved equipment manufacturers in the design process, right from the initial drawing stage. By adopting this cooperative approach, they have been able to focus on the boat's ergonomics and the platform's technicality at an earlier stage.

The Gitana 11, a 60-foot racing trimaran designed by Van Peteghem & Lauriot-Prévost, is emblematic of these exceptional boats that are driving the entire nautical industry onwards and upwards. These technology enthusiasts are real laboratories where the models of the future are born.



A first-rate industry in constant search of innovation

FRENCH DESIGN: AN INTERNATIONAL REFERENCE POINT

The names of the major boat architects are well-known to boat users and racers the world over: Briand, Berret-Racoupeau, Finot-Conq, Van Peteghem/Lauriot-Prévoist, Vaton, etc. Their designs (such as the Finot-Conq surfing hulls or the racing trimarans of Van Peteghem/Lauriot-Prévoist) have revolutionised the worlds of racing and mass-produced boats. The major French yards were very quick to seize on the talents of these designers. Philippe Briand has designed several boats for Jeanneau, with Van Peteghem and Lauriot-Prévoist using their expertise in the service of Lagoon, the major brand name amongst cruising catamarans.

The same synergy can be seen in the

world of motorboating, with Subrero, Mauric and Joubert enjoying a worldwide reputation by designing boats for passenger transport or fishing. France also excels in interior design. Olivier Flahault has created interiors for several prestige yachts, with Patrick Roseo being responsible for designing a number of cruising boats.

MASTERING NEW MATERIALS

After reigning supreme for many years, wood has now been replaced by composite materials: 90% of hulls are now made from stratified compounds (carbon fibres, aramid fibres or Kevlar and polyethylene). Designers vary the materials used, according to the model and the builder. For example, Vaton Design creates aluminium hulls for Alubat, plastic hulls for the Kelt or Kirié yards and even wooden composite boats for H2X... The major yards are also paying close attention to the development of highly innovative plastics in other industries, such as thermoplastic resins that can be melted down and are therefore recyclable, or even extremely solid

FRENCH TRAINING IS BECOMING MORE AND MORE SPECIALISED

In less than four years, together, the sailing industry has created almost 12,000 jobs. This trend, mainly linked to the sector's economic growth, should continue with the retirement of many people from the baby boomer generation. As they have developed and become more professional, boating companies have begun to require more and more specialised workers. Over time, training has had to adapt to the sector's demands. From naval architects to painters, and including renters, fitters and even mechanics, training is currently on offer for all tastes and at all levels. At high school level, there are a number of non-specialist qualifications intended to train technicians and executives that can be adapted to the needs of the nautical industry. For jobseekers or adults looking to retrain in another business, the French Nautical Industries Federation has accredited 18 centres that, depending on the needs of the profession, issue Professional Qualification Certificates in the areas of composites, woodworking, maintenance, electronics, sail-making, etc. (80 to 90% of participants leave with diplomas and

100% find employment). The AFPA (National Association for Adult Professional Training) also runs nautical-themed courses in four centres based in mainland France.

For students there are higher vocational examinations and degrees, engineering schools and architectural training courses. The French Nautical Industries Federation (FIN) has set up a bilingual business degree at Saint-Nazaire to train students specialising in sales in French and English. The same type of training was launched in Perpignan in 2008 (Franco-Spanish) and Nice in 2009 (Franco-Italian).

These courses are open to overseas students. Every year, the French Nautical Industries Federation publishes a very comprehensive guide to training available in France.

For more information: www.industriesnautiques.fr "Nos missions", "Emploi & Formation", "Guide des formations" (content in French)

Left: Interior design is the speciality of the big names like CNB, which employs a pool of renowned architects for its prestige yachts.

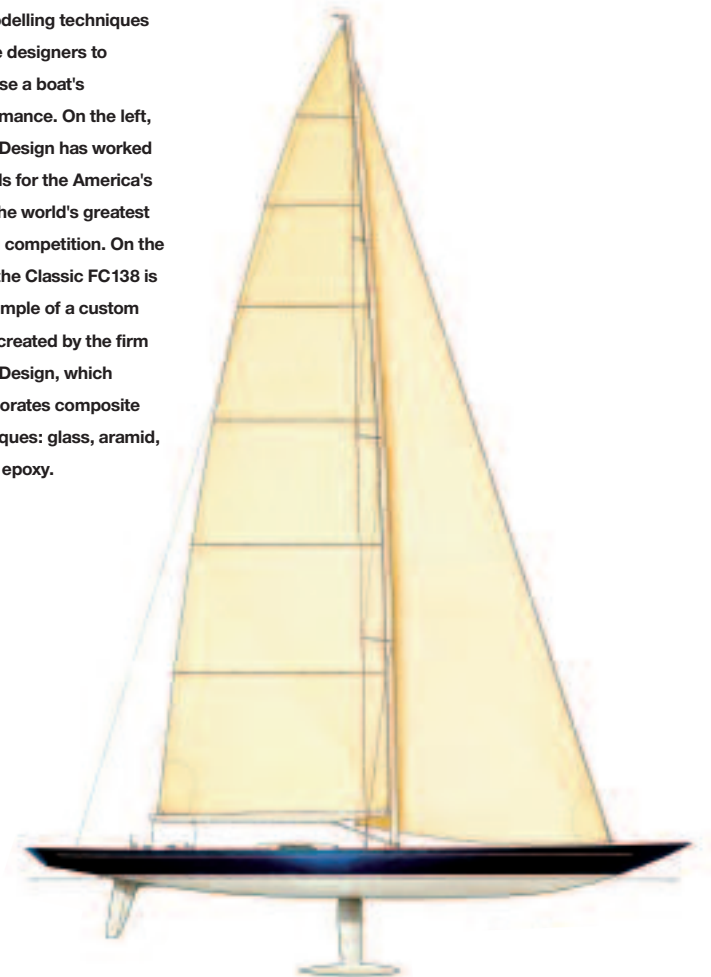
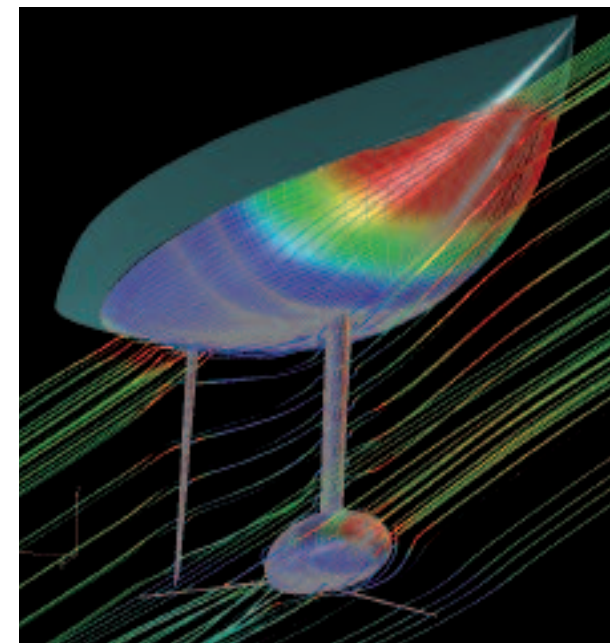
Right: The company Roseo proposes an innovative approach to interior fittings. Plans for the bridge and living areas are designed interdependently and therefore created simultaneously.



reinforced carbon resins. Aluminium is often the number one ally of racing boats. The Adrien boat, designed by Vaton Design for Alubat, enabled Jean-Luc Van den Heede to beat the solo round-the-world record in 2004, sailing against dominant winds and currents. For the mass-produced boating sector, the focus is mainly on polyester boats that are light and solid and relatively inexpensive.

In terms of foul weather gear, the plastic mac has also had its day. French brands, such as Guy Cotten, TBS and Tribord have also developed products that include innovative materials: polar fleeces, neoprene, Goretex, etc.

3D modelling techniques enable designers to optimise a boat's performance. On the left, Vaton Design has worked on hulls for the America's Cup, the world's greatest sailing competition. On the right, the Classic FC138 is an example of a custom yacht created by the firm Vaton Design, which incorporates composite techniques: glass, aramid, wood, epoxy.



A first-rate industry in constant search of innovation



Cousin fibres are as resistant as steel, but with textile qualities: lightness in air and water, resistance to corrosion... properties that are encouraging boatbuilders to use these new materials more and more.

In general, the sailing industry is benefiting from advances in electronics at all levels, from computer-assisted design to laser cutting. Most moulds are now created using high performance digital tools.

HIGH TECHNOLOGY SAILS AND ROPES

Thirty years ago, sailing boats resembled bags of old canvas. Now, a better comparison would be with aircraft wings. They are better cut, but are also more resistant. This progress is certainly due to the use of new materials (Kevlar®, carbon, PBO, etc.), as well as brand research. To study the ageing and resistance of sails, Incidences, the sailmakers, test their new types of sails on record-

breaking boats, such as Francis Joyon's Idec trimaran, which has sailed round the world.

Meanwhile, all boat parts have undergone something of a technological revolution: masts and booms are designed in carbon, shrouds in spectra® or PBO, marketed under the Zylon® brand name. The rope-makers are working on unbreakable fibres, some of which have more resistance than steel. The level of innovation in this sector is exceptional: the French company, Cousin, is thus able to supply both professionals and amateurs with a range of 8,000 products, 400 of which were invented within the last three years.

THE REVOLUTION IN ELECTRONICS AND SAFETY

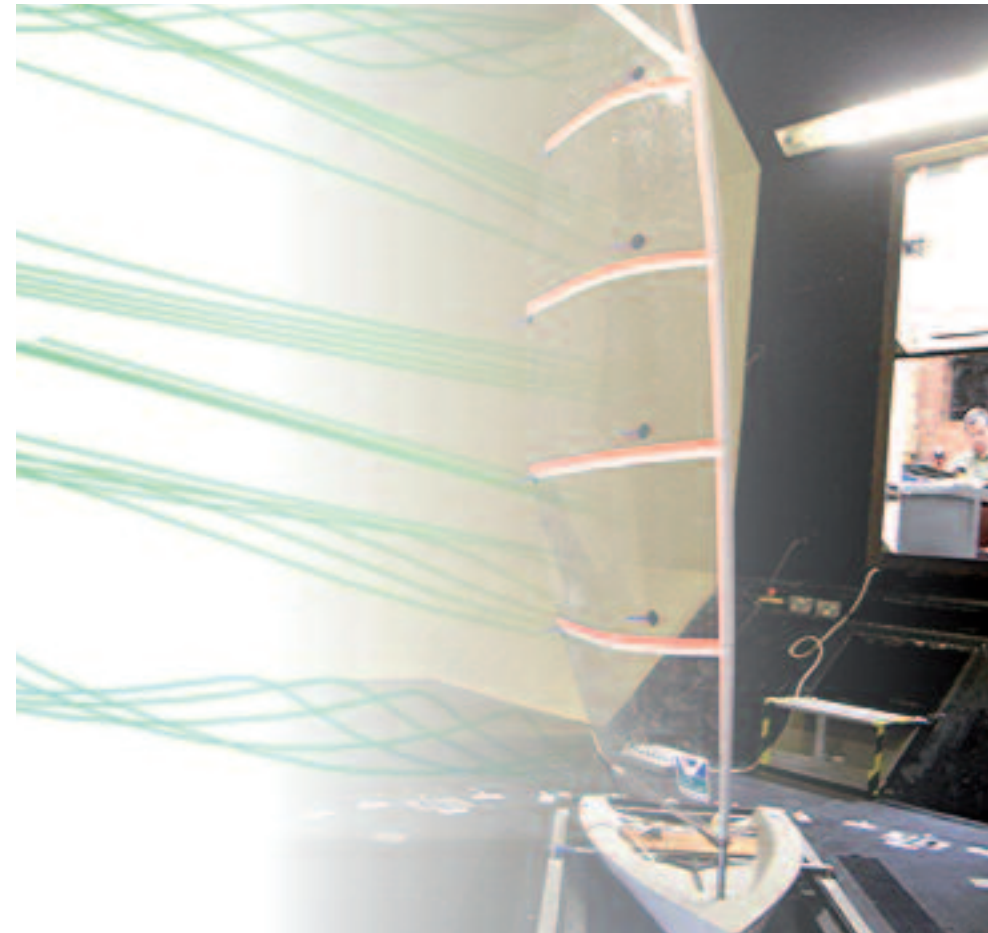
The area where boating has doubtless progressed more than any other is in onboard electronics. Navigation software has firmly established itself in the space of just ten years, thanks notably to manufacturers like Navicarte (Navicom group). Coupled with GPS systems, the price of which has gradual-



Yann Elies, one of the skippers on the Guy Cotten team, wearing the "Magic Hood", which won the award for innovation at the 2006 Paris Boat Show.



The biggest cruising catamaran in the world, some 44.2 metres in length, is the creation of Van Peteghem & Lauriot-Prévost. It will be launched at the Derektor Shipyard USA at the end of 2008.



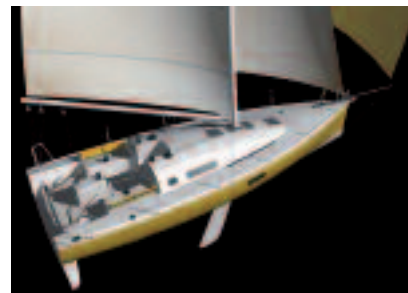
How do you optimise the aerodynamics of a dinghy sail? Damien Lafforgue (Finot Group) has used two methods: one experimental, the other digital. The results can be seen in this series of photos. The green lines show the currents. Recent advances in digital models and calculating power mean that simulations are now almost as accurate as practical trials, although a prototype must still always be physically tested prior to manufacture. Digital technology is extremely useful in the early design stage, where several different sails have to be compared within a limited timeframe. At the end of a project, the sails selected are studied more closely in a wind tunnel.



“ **VIEWPOINT**
Monique Bouroullec ”

Director of the Structures yard

“We started operations in 1990, when we built a boat specifically for regattas – the 6.50 Pogo, a small keel-boat designed for the Mini-Transat race, which is very popular in France and throughout the world. We are now building around sixty boats a year. The 6.50 is starting to sell well throughout Europe, our 40-footer is almost exclusively bought by foreigners, whereas the Pogo 8.50 works better in France. Given our yard’s size, we build boats to order and customers can choose their interior fittings, colours and electronics...but we still listen to their comments, which have helped us design the yard’s latest boat, the 10.50. Innovation is the key to our survival.”



The versatility of the Pogo 10.50 explains why it has proved such a hit with the public. Just as comfortable on the open sea as in coastal waters, the model adapts to any situation, with equipment made to order.

) A first-rate industry in constant search of innovation

ly become much more affordable, they enable sailors to track their position constantly and identify the optimum course. Navigation instruments (loch, speedo, depth sounder, weather equipment, etc.) have become significantly lighter and have greatly reduced the amount of energy they consume. This is a fundamental factor in terms of onboard energy management. The potential offered by electronics are also encouraging companies to look at innovations in terms of onboard safety. ASN VHF already allows the authorities to permanently chart a boat’s position. Personal distress beacons are also being examined, whilst some systems will one day allow a boat to be immobilised, if a man falls overboard, etc...



The tracking, detection and marine communication systems (in this case the Navicom sounder) are constantly being improved, for greater comfort and security.

THE MER BRETAGNE AND MER PACA CLUSTERS

In the last four years, some 71 competitiveness clusters have been set up in France, at the behest of the government. These organisations bring together companies, research institutes and training centres. They are intended to speed up the innovation process and promote the design of pioneering products likely to succeed in high-growth markets. The nautical industry has benefited from the creation of two global "Mer clusters", working on fields as diverse as maritime safety, engineering, naval services, exploitation of marine energy resources or marine biological resources, and the environment. These clusters represent some 41,000 jobs, 5,000 scientists and 300 companies. Thanks to the sheer quantity and scale of the projects launched, those clusters occupy a strategic position in the industry's innovation chain. The Mer BRETAGNE cluster has approved 30 projects, representing a total Research & Development budget of 97 million Euros. Fifteen

of those projects are guaranteed financing, whilst subsidies are being sought for the others. The Mer PACA cluster has launched 59 projects, 32 of which have currently received financing. A number of clusters contribute to innovation in the nautical industry in one way or another. For example, the EMC2 cluster (complex composites and metallic assemblies) is working on composite materials that could be useful to some boating businesses, whilst the Aerospace Valley cluster is looking at onboard tracking systems.

More information:
www.pole-mer-bretagne.com
<http://polemerpaca.tvt.fr>
www.pole-emc2.fr
www.aerospace-valley.com
www.competitivite.gouv.fr



“ **VIEWPOINT**
Cathy Millien ”

Communications director for the equipment-maker Navimo Group

“As equipment makers, we do a lot of work in synergy with the yards. Upstream, we are collaborating with boatbuilders, providing them with functions, not just products. For example, a complete boat-drying system and not just a bilge pump. To ensure that our equipment fits the boats perfectly, we take part in R&D meetings and are in direct contact with the designers. The nautical sector is becoming more and more like the automotive industry. In the last 18 months, we have recruited a lot of specialist engineers, able to work in design offices and meet the needs of the yards. In France, we have good schools and the group has been able to find these young people on a course such as at Edhec, where we know that the best students are those with a passion for boats.”



Above: a Couach yacht's onboard electronics make the wheelhouse resemble an aircraft cockpit.

Below: Max Power's Compact Retract thruster retracts completely into the hull during sailing.

An iconic instrument even now in the electronic era, the Plastimo Contest 101 compass is to be found on all mass-produced sailboats, and in particular the 60 footers due to take part in the Vendée Globe in November 2008.

The Steer'n GoTM tiller wheel from Góiot is the first ever wheel that can be removed with just one click. When removed, it frees up space in the cockpit, making life at anchor or in port much more comfortable.



The ecological challenge

In 2007, the theme of the Paris Boat Show was the protection of the environment, a very popular choice. What industry has more links to nature and the environment than boating?

BOATING'S MARGINAL ECOLOGICAL IMPACT

Boating is only very marginally responsible for any marine pollution. According to an independent study commissioned by the European Confederation of Nautical Industries, 77% of marine pollution is due to waste from land-based activity. The depositing of waste into the sea represents 10% of marine pollution, with 1% coming from off-shore petroleum installations. Only 12% of marine pollution is down to maritime activities, namely maritime transport, transporting hydrocarbons and hazardous products, harbour activities, port-ship interfaces, accidents such as black tides, degassing and other waste. In this last category, boating is thought to be responsible for less than 1% of total marine pollution.

COMPANIES' OWN ENVIRONMENTAL PROTECTION REGULATIONS

In the field of environmental protection, visible efforts have been made in several areas. European and French regulations are some of the strictest in the world and point towards a better ecological approach for the industry. In May 2003, the European Parliament and Council adopted a new directive on pleasure boats, which defined environmental standards in terms of design, construction and waste. In France, the water law regulates waste, particularly in marinas, which,

Environmental protection is a key challenge for the nautical industry. Fewer emissions, ecologically sound construction, clean marinas, law-abiding boat users, everyone involved in the nautical industry has their part to play.



little by little, are acquiring careening sites and receptacles for oil, batteries and black water... Several French companies are also using more and more environmentally-friendly technologies to build boats.

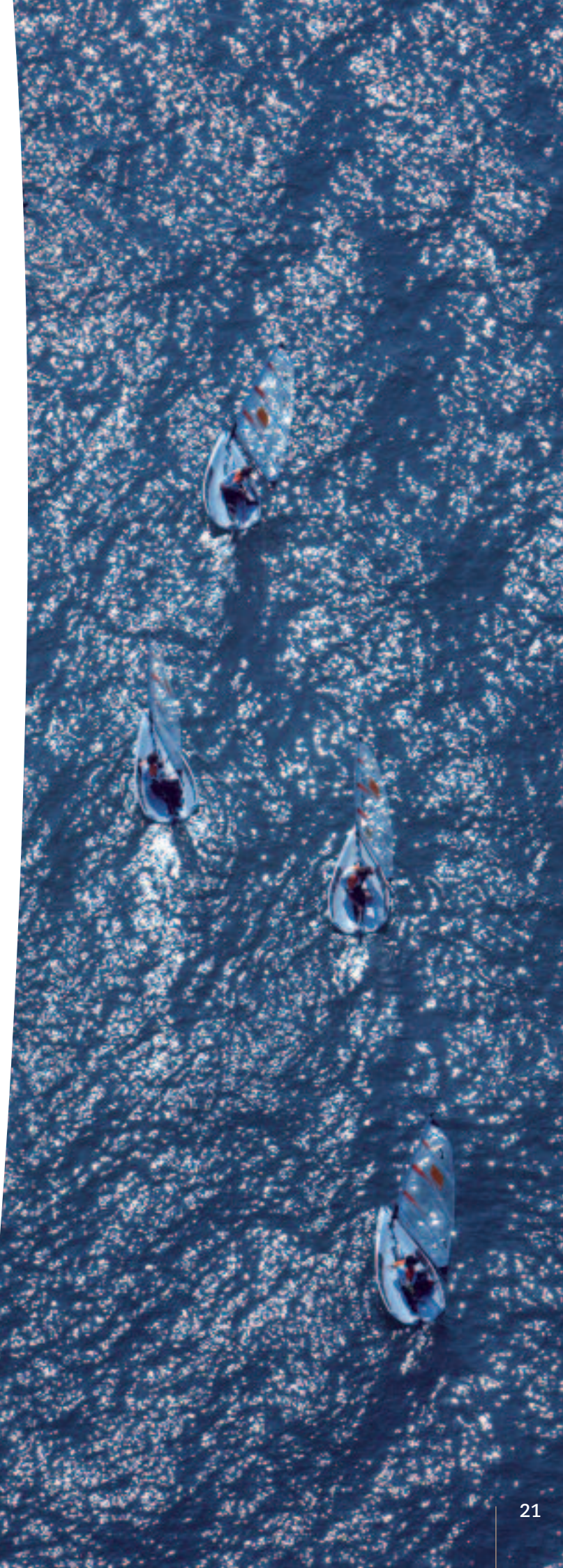
REDUCTION OF HYDROCARBON WASTE AND HARMFUL EMISSIONS

In France, current technologies are tending towards four-stroke engines that meet the European Yachts Directive 2003/44/EC and the standards introduced in 2006 by the US Environmental Protection Agency, two of the strictest regulations in the world. Petrol engine emissions have been reduced by 30% in 10 years. Noise emissions for pleasure boats engines are also restricted: 75 decibels for single engine boats (the majority) and 78 for the others.

ENVIRONMENTALLY-FRIENDLY MANUFACTURING PROCESSES

French regulations also lead the way in this area, requiring the major builders who produce over a tonne of plastic a day to carry out this work in enclosed moulds. This regulation is ahead of other countries' legislation and very effectively tackles emissions that are harmful both to the environment and human health. Alongside it, there are several initiatives in terms of plastic resins, which are less and less toxic, whilst providing better mechanical properties. The development of new processes, such as injecting to make plastic hulls, has also allowed the amount of waste to be reduced.

Many French companies are leading the way in recycling. When designing its craft, Bic Sport reuses all its leftover plastic. In 2007, the firm won the Bateau Bleu Award (see below) for the Open Bic, a drifter that was hailed for its ecologically sound design. In fact, it takes very little electrical energy to make this small boat, made from glass fibre and partially recyclable, whilst there is no waste, no gas emissions and no solvents.





“VIEWPOINT Matthieu Taburet”

Export Manager at Nautix

“The environment is one of our priorities. The challenge facing us is to create antifouling paints (for below the waterline) that are effective, biodegradable and long-lasting. For the time being, it is proving very difficult to achieve all three at the same time, but we are working on it. Nautix is leader of the “paintclint” project, which has been accredited by the Mer Bretagne competitiveness cluster and financed by the French government, as part of support measures for research projects. We are participating in a research programme that includes the DCNS (a major player in the global market for naval defence systems), Ifremer and the University of Brittany. In Europe, we currently have very strict regulations in this area – so much the better!”

Biodegradable and resistant underwater paints have a bright future. Among 60-foot racing monohulls, the first 10 in the Transat Jacques Vabre opted for Nautix paints.

The ecological challenge

GRADUAL REDUCTION IN TOXIC VARNISHES AND PAINTS

To limit the industrial pollution linked to the use of chemical products, small and medium-sized French businesses have started to use new varnishing techniques, doing away with polyurethane varnishes and replacing them with resins with low volatile component emissions. The most hazardous antifouling paints, especially those containing tributyltin (TBT), which are very effective and widely used, have been banned. French SMEs like Nautix have consequently tried to improve the properties of new generation antifouling paint. Scientists are even studying the properties of the skin of dolphins and seals to develop new “antifouling” systems”.

BLACK WATER, GREY WATER AND WASTE PROCESSING

More and more live-aboard boats produced are systematically equipped with onboard black water management systems (tanks, dry toilets, etc.), and therefore qualify for the “Bateau Bleu” label (see below). Meanwhile, the majority of French marinas are gradually acquiring pumping systems to recover waste water from toilets. However, the future is with onboard water treatment systems, which are currently being researched by a number of French SMEs (like T3EI in Brittany), to be adapted to standard pleasure boats.

For grey water (washing water), there are currently some household detergents and hygiene products that are fully biodegradable in less than one month. With regard to the treatment of waste, French marinas are currently providing containers and dustbins for boat users to collect the waste from cruising boats. Most have selective sorting systems in place. In terms of the pollution linked to boat maintenance, marinas are gradually acquiring ecological infrastructures, such as careening basins that collect the toxic products resulting from hull cleaning.

ENERGY SAVINGS

The ecological cost of a boat is certainly marginal, but it can be reduced even more, notably by using the engine that supplies the onboard batteries less. There are two complementary ways of doing this – reducing energy consumption or finding sources of alternative energy. The company ILS Mer, which won the Bateau Bleu Award in 2006, has developed a prototype dual-technology interior lighting system, which will allow energy savings of up to 75%. There are also several equipment-makers looking at



this problem, particularly with regard to electronics.

To find alternatives to the combustion engine, some French companies are putting in place hybrid systems that use fuel cells, windpower and solar panels, all linked to a back-up generator. This

Vendée Globe 2008-2009:
the Cervin EnR is fitted with solar panels. All onboard instruments are clean energies-powered.

has enabled cruising catamarans to cross the Atlantic without starting up their generators. During his recent record-breaking circumnavigation, Francis Joyon’s boat was equipped with a fuel cell. There are doubtless a whole series of solutions in the pipeline in a relatively near future.

RECYCLING BOATS AT THE END OF THEIR LIFESPANS

Keen to deal with the issue of boats reaching the end of their lifetimes, in 2002 the French Nautical Industries Federation began looking at the possibility of creating and promoting an organised network for the dismantling of pleasure boats, known as the “BPHU” programme (standing for “Bateaux de Plaisance Hors d’Usage” or “Yachts Not In Use”). An eco-body should be created in the near future.

THE BATEAU BLEU® PROGRAMME

Keen to encourage sustainable boating and respect for the environment, the French Nautical Industries Federation created the Bateau Bleu® Programme. With these two initiatives, the Award and the Label, the French Nautical Industries Federation aims to promote products and designs that enhance the sailing experience, yet are also in harmony with the marine environment. The Bateau Bleu® label is awarded to environmentally friendly products that guarantee effective management of onboard black water. Since 2008, additional criteria have been introduced, designed to take account of the issue of spillages during victualling. The Bateau Bleu® Award, meanwhile, is intended to encourage Research and Development into technologies that are suited to yachting and respect the marine environment. After “onboard water management” in 2008, the 2009 Award will go to a project or design that allows better environmental management of onboard waste: storage, sorting, reduction, reuse, recycling or any other function. The previous editions rewarded the best projects in the fields of onboard black water treatment (2005), onboard energy savings (2006) and ecodesign (2007).

For more details: www.industriesnautiques.fr



The Open Bic received the Bateau Bleu Award in 2007, in recognition of its eco-friendly design, free of fibreglass and partially recyclable.

French boating worldwide

The figures do not lie: 63% of French production is exported abroad. This is a sign of the quality of French products, whilst also providing evidence of the good health enjoyed by an economy that is becoming increasingly globalised.

KNOW-HOW RECOGNISED WORLDWIDE

French nautical products are present across the globe. In 2006, the export rate for French production was 63% (73% for sailing boats and 55% for motorboats). In 1998, for the first time, sales of French-made pleasure boats abroad surpassed sales within France and this trend has been confirmed subsequently.

THE REASONS FOR FRANCE'S WORLDWIDE SUCCESS

French boatyards' excellent reputation for quality and high technology is enabling companies in the sector to succeed in a fiercely competitive market. The major French boatbuilders are also big exporters, such as Bénéteau, Jeanneau (saiboats, motorboats), Fountaine-Pajot (catamarans) and Zodiac for inflatables (72% of unregistered inflatables are also exported). Exports are particularly dynamic with regard to high-tech boats. French equipment makers have acquired a great worldwide reputation for fitting out racing boats, whilst also gaining the trust of the major foreign boatbuilders. Certain equipment makers generate the majority of their turnover outside France. One example of this is the Wichard Group that owns the Wichard (fittings) and Profurl (sail rollers and storage) brands. Some 60% of its 25 million euros turnover is generated abroad. The group supplies major boatbuilders like the Danish firm X Yachts,



“VIEWPOINT Benoît Treguilly”

Communications and Marketing Manager for Bic Sport.

"We attend several shows, to ensure that we are optimally positioned within the emergent countries. This year, we will go to Dubai, Budapest and Shanghai. These small sectors are important, because, when added together, they can create significant sales. Countries like China and India have huge potential. French products have a good image in terms of quality within these markets. The French are rightly considered as a seafaring nation and France enjoys a strong internal market with a good structure. All this means that we more and more interested in countries that are currently discovering yachting."

Since 2004, the Nautitech yard has sold four catamarans in China (photo on left) and is working on a 47-footer for the Japanese market. Right: in March 2007, Maud Fontenoy beats the solo round-the-world record, sailing against dominant winds and currents, in a time of 151 days. In doing so, she joined France's most famous sailors and further enhanced the French nautical industry's glowing worldwide reputation.

and is continuing to forge a worldwide presence by developing its network of distributors and opening subsidiaries (most recently in the United States and Australia).

CONQUERING EMERGENT MARKETS

In all areas of the economy, eyes are on the emergent nations, and boating is no different. Economic analysts predict huge development in leisure pursuits in countries like China, India and even the countries of Eastern Europe. The Nautitech yard that specialises in catamarans exports 75% of its output abroad, to countries such as Croatia, the Scandinavian nations, Italy, Spain, Greece... Since 2004, however, Nautitech has also sold four units in China. A 47-footer is currently being designed for Japan and the yard is keeping an eye on certain countries in Eastern Europe.

With over a million units sold across the planet, Zodiac is the world's leading manufacturer of inflatable boats. Some 72% of its unregistered inflatables are sold overseas

For some years, the FIN has been following a deliberate strategy aimed at strengthening France's presence at the boat shows in these regions, organising French sections at events in Budapest, Bombay, Shanghai or in Korea... Initiatives that help spread costs and pool resources, enabling companies to gain a foothold in distant markets, make initial contacts and meet distributors. The FIN is also a partner of Ubifrance, promoting participation by French professionals in the Dubai boat show, and organises French sections in the most established markets, at the Amsterdam METS or the boat shows in Dusseldorf, Monaco and Fort Lauderdale...

INTERNATIONALLY RENOWNED SHOWS IN FRANCE

Confirming its success with each passing year, Paris Boat Show attracts over 270,000 people annually. This essential event, one of the oldest in the world, is a prime business forum where some yards make over 50% or more of their annual sales. Other events play an equally important role, like the Cannes International Boat Show and the International Boat Show in La Rochelle, which are now rivalling the most prestigious international exhibitions.



French yachting worldwide



The French section at the Shanghai International Boat Show is testament to France's active presence in emerging markets, and especially in Asia.

Bottom: 100,000 visitors, 700 boats exhibited including 300 afloat, 850 international exhibitors...the International Boat Show in La Rochelle is a major event on the world's sailing calendar.

Right: the Cannes International Boat Show, created in 1977, plays host to the most famous international boatyards, with almost 200 new products unveiled to the public for the first time.

OFFSHORE RACING: THE SECTOR'S SHOP WINDOW

Less than fifty years ago, off shore racing was still an activity only pursued by wealthy English sailors, whose playground was the Solent, off the south coast of England. In 1964, a French navy officer by the name of Eric Tabarly forced his way into this closed community with victory in the British Transat, astonishing the British with his strength of character, whilst simultaneously bringing sailing to the attention of French people. As a result of this victory, yacht racing became a major sport in the French psyche, to such

an extent that knowledgeable entrepreneurs decided to invent new races "made in France", which are now world famous, such as the Route du Rhum (a single-handed Transat), the Vendée Globe (a single-handed round-the-world race) or the Solitaire du Figaro (a single class coastal race).

The example of the Vendée Globe demonstrates the success of the French races. Philippe Jeantot created this race at the end of the eighties and it went on to become the "Everest of yacht racing". The skippers have to sail around the world single-handedly and with no assistance or stopovers. After five eventful, sometimes dramatic and often magnificent races, the Vendée Globe has become a race that is followed worldwide. In 2004-2005, 842,000 spectators visited the Vendée to follow it, generating 15.5 million euros in profits for the region, with 11,966 TV programmes and 12,000 press articles distributed worldwide!





The Economics, Finance and Employment Ministry

The General Directorate for Business Enterprises (DGE) is tasked with developing an environment favourable to the competitiveness of industrial companies and of the related service sector.

The DGE, working under the authority of the Economics, Finance and Employment Ministry, is responsible for framing and implementing French industrial policy. With support from the network of Regional Directorates for Infrastructure, Research and the Environment (DRIRE), which reports to it, the DGE is the main correspondent for industrial companies in particular and for the related service sector.

For more information, please visit www.industrie.gouv.fr or www.competitivite.gouv.fr



The French Agency for the International Business Development (UBIFRANCE), operating under DGE authority, lies at the heart of the foreign-trade support structure. As such UBI-FRANCE, working in close synergy with the various French Embassies' trade missions around the world, provides a full range of products and support services to help French companies develop their business activities in foreign markets.

For more information, please visit www.ubifrance.fr



Invest in France Agency (IFA) promotes and facilitates international investment in France. The IFA network operates worldwide, with offices in France, as well as in North America, Asia and Europe. IFA works in partnership with regional development agencies to offer international investors business opportunities and customized services all over France.

For more information, please visit www.investinfrance.org



French Nautical Industries Federation

The French Nautical Industries Federation (FIN) was set up in 1964 to defend, represent and promote all parts of the French nautical industry, both in France and abroad. It brings together all the sectors involved in the development and practice of nautical activities. FIN currently has 750 members.

The French Nautical Industries Federation maintains close links with the regional, national and European authorities, provides assistance and advice to companies in a range of fields and also informs the public and the media about news in the industry.

At the international level, jointly with the Belgium Federation «Nautibel», FIN is a founding member of the European Confederation of Nautical Industries (ECNI).

FIN owns the Paris, Cannes and Maritima Boat Shows, and sponsors the Grand Pavois in La Rochelle. It also organises French pavilions in major international boat shows.

www.france-nautic.com

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