

ASIA'S LEADING YACHTING LIFESTYLE MEDIA

YACHT

style



REVIEWS: DAMEN SEAXPLORER 77 LA DATCHA, SANLORENZO SX112, FAIRLINE SQUADRON 50
OWNER: MIKE SIMPSON, BENETEAU OCEANIS 46.1
LEADERS: JULIA STEWART, IMPERIAL YACHTS
OLIVIER PONCIN, BALI CATAMARANS
PROFILE: NEXTWAVE YACHTING, HONG KONG

EXCLUSIVE: NICO ROSBERG, SUNREEF ECO
SUSTAINABILITY: CATAMARAN FOCUS
SPECIAL FEATURE: ASIA'S YACHT BUILDERS
SHIPYARD: ABSOLUTE YACHTS, ITALY
WATERFRONT: ONE SYDNEY HARBOUR
LIFESTYLE: MERCEDES-BENZ E-CLASS

**SUNSEEKER'S
'FAMOUS FIVE'
ASIA EXCLUSIVE:
MANHATTAN 55**

HONG KONG: HKD80
CHINA: RMB90
SINGAPORE: SGD12
MALAYSIA: MYR32
THAILAND: THB350
PHILIPPINES: PHP 450
VIETNAM: VND200,000
INDONESIA: IDR 125,000
REST OF THE WORLD: USD12



ISSUE 58



SUNSEEKER MANHATTAN 55



SUNSEEKER SAVOURS SPOTLIGHT

Sunseeker's 'Famous Five' new models are already making their mark in Asia. For starters, multiple orders for the Manhattan 55, our cover star and among yachts profiled in *Review*, had been received across different markets in this region even before its official world premiere – online, of course.

Along with launching five fresh models, the famed British builder has appointed a new dealer in Hong Kong, NextWave Yachting, a dynamic company led by a tight-knit group of friends and which is the subject of *Profile* this issue.

Hong Kong remains the region's leading market for sales and activity, as evidenced by two other yachts profiled in *Review*. The first Fairline Squadron 50 in Asia was quickly sold soon after arriving in the city, while the SX112 premiered by Sanlorenzo late last year will arrive in the summer. The *Review* section opens with Damen Yachting's first SeaXplorer 77, the spectacular *La Datcha*, a charter yacht with a remarkable itinerary.

Mike Simpson founded Simpson Marine in 1984 and still heads Asia's largest yachting dealership yet he found time last year to buy a Beneteau Oceanis 46.1, the first sailing yacht he has owned for over two decades. In *Owner*, he opens up about his new prized possession and how taking it out reminds him of the 'yachting freedom' he has been promoting for coming up to four decades.

Hong Kong's Cheoy Lee is arguably this region's most historic boat builder and CL Yachts, its new brand of luxury motor yachts, leads our annual feature on Asia's Yacht Builders as it continues to develop an expanding range.

Kingship Marine, also headquartered in Hong Kong with a shipyard in Guangdong, has a strong history in superyachts and is diversifying into powercats. Heysea, mainland China's leading superyacht builder, launched a 43m, 701GT powercat last year while continuing to build a series of 100ft-plus monohull superyachts.

Imperial is renowned for managing the 136m *Flying Fox* and 107m *Lana*, two of the world's biggest charter yachts, but these are proving far from exceptions as the Monaco-based brokerage continues to sign huge projects including builds for the 100m Project Titanium with Admiral in Italy and an Amels 242 with the Dutch yard. In *Leader*, Director Julia Stewart explains the company's rapid rise in the sector and why it has such a close relationship with leading superyacht builders.

Also in *Leader*, Olivier Poncin talks about creating and growing Bali, which has quickly established itself as one of the world's leading

brands of cruising catamarans, with distinct design features and an increasing presence in Asia.

Bali also features in our *Sustainability* series, which focuses on catamaran builders and their efforts to make their boats greener. Silent-Yachts has been a high-profile proponent of eco-friendly yachting, while Fountaine Pajot will soon reveal a global vision based around becoming a leader in sustainability.

Sunreef Yachts is developing its solar-powered technology in-house and is set to launch the first models in its new Eco range later this year. The Polish builder has also secured Nico Rosberg as an ambassador for the range and the former Formula One champion speaks to *Yacht Style* in this issue about why his new career is focused on green technologies and e-mobility start-ups.

As sustainability becomes increasingly important to yacht builders and the boating community, Rosberg is hoping he can play his part in helping sports stars and global sports properties put it higher on their agenda. Along with Lewis Hamilton, Jenson Button and Sebastien Loeb, Rosberg is involved in the new Extreme E global series for electric SUVs, which is designed to highlight the impact of climate change while also promoting sustainability and electric vehicles.

"My big vision is that we as sports teams also join in to raise awareness for the big threats we're facing as a society and affect positive change. That's my vision and what I want to be a role model for, with my team, with Rosberg Xtreme Racing, with Sunreef," Rosberg said.

"And the end vision would be that a team like Manchester United or a big sports league or series puts sustainability at its core and makes it part of its purpose for existing. I think we in the sports sector have a duty to get involved because everybody needs to do their part." ☺



John Higginson,
Managing Editor, *Yacht Style*

Lux Inc
INTEGRATED MEDIA

E-MOBILITY'S WINNING FORMULA

Nico Rosberg moved into the yachting spotlight last year as the ambassador for Sunreef Yachts' Eco range of solar-powered catamarans. Meanwhile, the 2016 F1 champion turned sustainability entrepreneur also owns a team in the new Extreme E off-road series for electric SUVs, in which the use of hydrogen offers a window into the fuel's potential use for yachts.

WORDS JOHN HIGGINSON PHOTOS SUNREEF YACHTS



Joint 12th in all-time Formula One wins with 23, Rosberg's new career in sustainable technology led to his ambassador role for Sunreef's Eco range

Sunreef Yachts made global headlines in early June last year when tennis legend Rafa Nadal received his 80 Sunreef Power *Great White* at his home port in Mallorca. Soon after, on World Oceans Day on June 8, the Polish builder announced a tie-up with another sporting icon when it named Nico Rosberg as the ambassador for its new Eco range of luxury solar-powered sailing and power catamarans.

Rosberg is best-known for a high-profile Formula One career that included 23 wins in 11 years, including nine in 2016 when he won a gripping World Championship, pipping Mercedes teammate Lewis Hamilton after finishing runner-up to the Brit the previous two years. However, just five days after securing the championship at the season-ending race in Abu Dhabi, the Monaco-based German announced his surprise retirement from the sport at the age of 31.

Since then, Rosberg has established himself as a successful e-mobility and green tech entrepreneur and investor, leading to his ongoing partnership with Sunreef. However, despite a globe-trotting sporting career that overlapped with Nadal's for many years, Rosberg never met the Spaniard until a chance encounter in the Balearic Islands late last year.

"It was funny," he smiles. "I was in a bay in Formentera, south of Ibiza, and Rafa suddenly arrived on his new yacht, *Great White*. I had never met him before, but we both had the Sunreef connection, so I swam over to his boat.

"It was really nice. He said, 'Oh, it's so cool that you're also in partnership with Sunreef for their Eco range. Let's have a chat.' He was super happy to have his boat, so we just sat on the back and had a nice conversation."

The son of Keke Rosberg, the 1982 Formula One champion, Rosberg was born into racing and became a global superstar during seven years with Mercedes, partnering compatriot Michael Schumacher and Hamilton – F1's two most successful drivers – for three and four years respectively.

Yet despite a sporting career based on power and speed, Rosberg prefers to sail when on the water and has enjoyed spending time testing a Sunreef 60 E from his base in Monaco, where he has lived for much of his life.

"I love sailing. The sheer beauty of it is just unbelievable. When I was on the Sunreef, letting the sails out, using the power of the wind and enjoying the silence just gives you this amazing way of enjoying nature," says Rosberg, whose luxury brand partnerships also include Kempinski Hotels.

"But there's a responsibility. I've been enjoying our oceans so much throughout my life because I've been so fortunate to be on boats, and anyone building yachts has a responsibility to take care of the oceans and that's what Sunreef is doing so well. This is definitely the right path for luxury yachting."

Rosberg's partnership with Sunreef stemmed from his father introducing him to Francis Lapp, founder and President of Sunreef, passionate rally car driver and Formula One fanatic.

"Francis is a huge racing fan, so we met in the paddock and got talking. It only really kicked off when I realised how passionate about sustainability Francis and the Sunreef crew were, because that's my path as an entrepreneur. I was like, wow, we have so many synergies, we should do something with this. The partnership with Sunreef Yachts totally fits into my mobility ecosphere."

SUNREEF'S ECO PATH

Rosberg is impressed with what he has seen at the builder's facility in Gdansk on Poland's north coast, where Lapp's background as an electrical engineer has ensured that Sunreef has always prioritised the most advanced technology in its luxury catamarans.

"Francis is an engineer at heart, so they have engineering excellence as one of their highest priorities. That's why it's fascinating what Sunreef is coming up with, to make luxury yachting sustainable,



Pictured helming a Sunreef 60 E near Monaco, Rosberg's F1 championship-winning season in 2016 included wins in China, Singapore and Japan

and why it's a pleasure to work with them. In the factory, they have a whole innovation space where innovators are trying new technologies and making progress all the time."

In just a few years, Rosberg has quickly got up to speed on a whole variety of sustainable technologies and was quick to recognise the brand's cutting-edge work in combining electric propulsion with a remarkable solar-power system and super-light, high-performance batteries.

"It's all really, really innovative and trailblazing. I love that they're pushing boundaries. Their solar-powered solution is particularly innovative, how they're covering the hull of the boats with tiny solar cells. They're focused on reducing weight, using carbon a lot and introducing more sustainable materials," he says.

"At the moment, they're working on building future hulls with a basalt and linen material combination, which would be a huge step

in sustainability. They're really trying everything, using recycled teak instead of new teak and many other examples. It's really awesome and very fascinating."

As well as making yachts and boat operations more eco-friendly, Rosberg says it's important that sustainability in yachting starts to make the move from niche and idealistic to mainstream, even 'cool'. Although he's involved with and surrounded by green tech pioneers, he does believe that sustainability in yachting is becoming more than good PR.

"I think what's changing is that a yacht owner can impress people if their yacht is ultra-sustainable, because that's just cool. Having petrol-burning black smoke coming out the back just doesn't impress anyone," he says.

"In the next couple of years, you'll be able to impress with a yacht that's super innovative in terms of sustainability, like Sunreef's

Since retiring from Formula One as world champion, the Monaco-based German has since invested in over 20 e-mobility and green tech companies





Rosberg, who has over 8.5 million followers on social media, is pictured visiting the Sunreef shipyard in Gdansk on Poland's north coast

solar-panel solution, especially when you see the drive-train solution integrated into the yacht and maybe even wind power generators. That's going to be the way to impress in future.

"People are more conscious of our environment and every yacht owner wants to impress with their boat, so I think that's a strong power."

Rosberg says the appeal of eco-friendly yachts and other vehicles is only going to increase with both future generations demanding the technology and the technology itself improving over time.

"If the owner's kids are coming on board and the yacht's blowing smoke out the back, they're going to be like, 'Hey, what are you doing?!' All these different powers are coming into play and it's



Rosberg with Sunreef founder Francis Lapp at the shipyard in Gdansk

becoming a big trend, which is amazing because we're facing such a big threat to the environment."

FORMULA E TO EXTREME E

Rosberg's business portfolio includes being an investor and shareholder in Formula E, the global electric-car series that started with its first race in Beijing in September 2014 and whose venues in Asia have also included Putrajaya, Hong Kong and Sanya.

However, he has a more personal involvement in the brand-new Extreme E as the founder and CEO of Rosberg Xtreme Racing, one of 10 teams competing in the 2021 series featuring male-and-female duos racing electric SUVs off-road in remote locations.

Spanning four continents, the five-stop series is designed to highlight the impact of climate change and human activity on some of the world's remote locations, while promoting sustainability and the adoption of electric vehicles to help protect the planet.

Covering a variety of environments, the schedule features the Desert X Prix in Saudi Arabia (April 3-4), Ocean X Prix in Senegal (May 29-30), Arctic X Prix in Greenland (August 28-29), Amazon X Prix in Brazil (October 23-24) and Glacier X Prix in Argentina (December 11-12).

In late February, the RMS St Helena, Extreme E's floating paddock and base, departed the UK for Saudi Arabia carrying the series' freight and infrastructure, including race cars.

As well as Rosberg, high-profile team owners include Hamilton, the seven-time F1 world champion, and Jenson Button, the 2009 world champion who will be one of his team's two drivers. Like Rosberg, Hamilton won't be at the wheel, but his team's drivers include Sebastien Loeb, the nine-time World Rally Championship winner.

Sunreef has come on board as a corporate partner of Rosberg Xtreme Racing, a natural sponsorship considering Lapp's long history of rally driving including two editions of the Paris-Dakar Rally and last year's Africa Eco Race, which Sunreef partnered. For Rosberg, the Sunreef synergies just keep on coming.

"It's such a coincidence," Rosberg laughs. "When I came to him with the project, he was like, 'I can't believe it, that's so cool, I want to support'. He even came to the first official test we had."

Rosberg says the involvement of three recent Formula One



Sunreef branding on the Rosberg Xtreme Racing Odyssey 21 E-SUV; Extreme E's hydrogen fuel cell generators by AFC Energy

world champions and rally legend Loeb show that sustainability is increasingly a cause worth promoting.

"The Extreme E line-up is really impressive now, with some big names and big car manufacturers. It's because everyone is searching for a platform where they can really affect positive change and this is what Extreme E provides."

Extreme E is also set to showcase the potential of hydrogen power, which could have a much larger role in yachting in the future. In January, Extreme E unveiled the hydrogen fuel cell generator developed with AFC Energy that will be used at each race location to charge the race fleet using zero-emission energy, with the only by-product being water for utilisation elsewhere.

"We're going to have hydrogen power stations, so the electricity in the cars is going to be powered by hydrogen fuel cell chargers. This is really innovative and massively reduces the emissions of the championship. It's really forward thinking and that's what makes Extreme E so special."

Rosberg is also excited about hydrogen's potential use in yachting, but in contrast to how sailing yachts and solar power rely on wind and sun respectively, hydrogen power requires a lot more man-made infrastructure.

"Hydrogen is most likely to be the future solution. The problem is the whole yachting ecosystem needs to be geared to hydrogen. A yacht built to be powered by hydrogen would be fantastic, but you must think about the whole supply chain and how the hydrogen gets to the harbour and this system isn't there yet," he says.

"You'd need to get a renewable energy source, which is perfect near the water as you can use either an offshore wind farm, wave

energy or tidal energy. If you have something like that next to a harbour and then an electrolysis plant that converts the water into hydrogen, that would be a fantastic solution to power the boats. I believe hydrogen is the future, but it's very far away.

"In the interim, Sunreef is doing it the right way, having solar power and electric batteries as a large range extender and making the yacht totally self-sufficient. You have the hybrid solution for the worst-case scenario, using the generators for extra range if needed."

PETROL HEAD TO ECO-HERO

Overall, it has been a remarkable few years for Rosberg, whose transition from petrol head to e-mobility pioneer was as surprising as the timing of his retirement.

"During my racing days, I had no interest in anything else apart from winning the next race and my family. I had achieved my dream and it was the perfect moment to make the exit and to look back totally fulfilled. I also wanted to spend more time with my family," says Rosberg, who has two daughters with his wife Vivian.

"It was only after my career finished that I really opened my eyes to sustainability. I made a promise to pursue a life of purpose and dedicate myself to the greater good while supporting others doing good for us as a society."

Now employing 20 staff in his head office in Monaco, Rosberg is co-owner of TRE (Team Rosberg Engineering) and has invested in a portfolio of more than 20 green tech and e-mobility companies and start-ups. These companies include Volocopter (air taxis), Lilium (electric jets) and Tier Mobility (e-scooter sharing startup).

"Mobility is my 'home', but as a sector, it causes one-fifth of the

Rosberg and fellow Formula One world champions Lewis Hamilton and Jenson Button are among team owners in the new Extreme E global series





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Rosberg is an investor in German flying taxi company Volocopter, which has performed test flights in Singapore

global emissions, so there's huge potential to do good by accelerating the necessary change. We can now see how e-mobility is coming in and it's a huge accelerator to making mobility more CO2-neutral and emission-free. That's why I'm very passionate about being active in the mobility space as an entrepreneur."

Rosberg is also the co-founder of the Greentech Festival in Germany, which has been held annually in Berlin since its debut during the city's Formula E event in May 2019, was simultaneously held online last September, and this year is scheduled to be held again at the Kraftwerk venue from June 16-18.

Overall, Rosberg has engineered a bold and widespread move into the world of business, but one that has proved financially successful so far.

"It was a steep learning curve, but I've got a nice team around me with a lot of experience. It's also about building a strong network of other VCs (venture capital firms) who have a lot of experience, knowledge and competence, and leverage on their experience. This path has been very successful," he says.

"We recently had a big exit from one of our first investments, so it's an exciting time. If you look at the 'unicorns' (privately held startups valued at over US\$1 billion) from our early investments like Lilium,

Tier Mobility, which is very close to being a unicorn, and Formula E, things have gone very well. Some don't do well, but on average, it has been a very successful journey."

Rosberg's influence even extends to playing a part in Monaco's decision to introduce electric buses. Other cities he praises include Copenhagen for the way it has integrated cycling into the city's infrastructure and Singapore, which he sees as a potential leader in e-mobility, with Volocopter among companies looking to unveil operations in the city-state.

In fact, Rosberg is scheduled to participate at this year's World Economic Forum in Singapore from August 17-20 in his role as a Young Global Leader, having spoken at previous editions in the Alpine town of Davos in Switzerland.

"Sustainability is now one of the biggest topics at the World Economic Forum, whereas it used to be geo-political matters or things like that," he says. "Now, sustainability is number one, which gives us all a lot of hope." ✎

www.sunreef-yachts.com

www.nicorosberg.com

Rosberg with fellow Greentech Festival co-founders Marco Voigt and Sven Krüger, and CEO Judith Kühn; cycling in Monaco; at the World Economic Forum in Davos



LEADING BY EXAMPLE

Silent-Yachts has quickly established itself as one of yachting's sustainability pioneers with its fast-growing range of solar-electric catamarans, while several long-established shipyards are also making huge strides in offering both eco-friendly sailing and motor yacht models.

WORDS **NICK HUNG** PHOTOS **FROM SHIPYARDS**



SILENT-YACHTS

Austrian-owned Silent-Yachts, which builds in Italy, Thailand and China, is moving from niche to mainstream with its increasingly popular and increasingly large solar-electric 'powercats'.

Founded by Austrian Michael Köhler, Silent-Yachts is one of the pioneers of solar-electric technology in yachting. Reflecting the increasing acceptance of solar power and the proven performance of the company's catamarans, Silent-Yachts has quickly progressed from building a total of 10 units of the Silent 55 and Silent 64 in the last five years to predicting delivery in 2021 of about 15 units ranging from 55-80ft.

These include the first 'front-exit' version of the Silent 55 in China, the first units of the new Silent 60 under construction in Thailand and Italy, and the first hulls of the Silent 80, all being built in Italy. Even the flagship 80 Tri-Deck has already received four orders.

Köhler believes green technology is going to become as popular in yachting as it's slowly becoming in other transportation sectors.

"Tesla is an inspiration for us and has played the biggest role in the overall acceptance of electric mobility and the electric revolution we see today. For yachts, we expect a similar growth in overall electrification as we see in the automotive industry. Due to massive R&D in various industry sectors, further developments are just around the corner," Köhler says.

"The mindset of millions of people has already changed and this will continue. Governments will adapt to the consumer and adapt regulations and develop infrastructure in ports. We've already been introduced to projects about upgrading marinas to include electric charging stations. In 10 years, such installations will be the new normal."

Prior to creating Silent-Yachts, the former lawyer and his wife Heike cruised on conventionally powered sailboats and motorboats for over two decades, spending over 5,000 days on board and cruising over 75,000nm. They eventually researched more efficient ways to supply yachts with energy.

"Even on a sailing yacht, you need to use the diesel engine when you leave a marina or bay and when the wind is too weak or blowing from the wrong direction. You're forced to turn on the diesel engines



Interior and exterior renderings of the Silent 80 being built in Italy, with the first units expected to launch this year

for propulsion and energy generation way too often, and we realised the sun is more reliable than wind."

After four years of research, Köhler launched the Solarwave 46 powercat in 2009 and "sea-trialed" it for four years before developing the Silent 64, which launched in 2016 and became the first production catamaran to cross the Atlantic Ocean on solar energy. The 55 further popularised the brand, with hulls shown at the Cannes Yachting Festival in 2018 and 2019.

However, the new Silent 60 has already become the company's best-seller, generating at least 16 sales before the first unit was completed, while the Silent 80 and 80 Tri-Deck have generated at least eight orders between them.

POPULAR TECHNOLOGY

Silent-Yachts uses solar panels from US brand SunPower and high-end Panasonic lithium batteries, with the same cell structure as those used in the automotive industry.

The roof of a Silent 60 is equipped with SunPower MAX3-400 panels with a total output of about 17kWp, compared to almost 26kWp on the Silent 80. Köhler – who says the company is working on a bigger model with an output well above 40kWp – says such solar panels need to be mounted horizontally.

"If they were mounted vertically on the hull, superstructure or on a mast, the output per day would only be a fraction of what our panels produce. If you want to maximise the power output, it's of utmost importance to mount the panels so they can't be shaded by other parts of the boat. As well as improving the efficiency of our hulls, we improve the roof design with every model to maximise the available surface for solar panels."

The yachts feature electric motors with a 96 per cent efficiency factor and high-tech carbon propellers with about 80 per cent efficiency, Köhler says, leading to a drivetrain with an overall efficiency of about 75 per cent.

In comparison, a conventional diesel engine's efficiency of about 35 per cent multiplied by a bronze propeller's efficiency of about 55 per cent results in about 20 per cent total efficiency. "This means the Silent-Yachts drivetrain requires only a quarter of the energy of a conventionally powered boat," he says.

In the more powerful E-Power+ version, the Silent 60 and 80 are equipped with twin 340kW electric motors on shafts that receive their power from a water-cooled lithium battery pack (286kWh on the 60; 429kWh on the 80).

The set-up means yachts can be driven during the day at six-eight knots and even at night at a reduced speed, without the need to start

the generator. For a limited period, a top speed of 20 knots or more is possible depending upon the motor configuration.

"While at anchor in a bay or even when cruising typical holiday distances' of 30 miles per day, there's no need to engage the generator at all," Köhler says.

The company offers warranty of eight years on the battery banks, 25 years on the solar panels and lifetime on the electric motors. In terms of recycling and reducing electrical waste, the modularity of the solar panels and batteries mean these components can be replaced by new-generation versions and re-used in a house, for example.

In addition, all models can be equipped with an automatic kite-sail system, as will be seen on the first Silent 60. The kite flies at altitudes between 70-140m, generating up to 10 times as much power/sqm as a conventional sail.

Silent-Yachts uses carbon-fibre in its efforts to lower yacht weight, while for interiors, it offers a variety of alternatives to leather or teak wood such as compressed paper, recycled plastic, as well as basalt and hemp fibres.

"We try to implement as much sustainable and naturally-sourced materials into our yachts as possible, and strive to enlarge this offering with every sensible possibility. Silent-Yachts was created to build solar-electric yachts, so reducing the carbon footprint and striving for sustainability is part of our DNA."



A Silent 55 (left), also pictured top being driven by Silent-Yachts founder Michael Köhler; the first Silent 60 (right) will be the brand's first model with a kite-sail system



The Silent 80 Tri-Deck has already received at least four orders



SUNREEF YACHTS

Sunreef's new Eco range of powercats and sailing yachts offers the shipyard's own ultra-light solar panels, which can be integrated across multiple surfaces, both flat and curved.

Sunreef Yachts announced its Eco range in mid-2019 before presenting a detailed overview of the range last April with former F1 champion Nico Rosberg in attendance. However, company founder Francis Lapp emphasises that the luxury catamaran builder has always focused on sustainability, ever since he created the company in Gdansk on Poland's north coast in 2002.

"Sunreef Yachts was founded on the belief that yachts should be energy efficient," Lapp says. "From the outset, our craft were designed to combine luxury and intelligent use of energy, so catamarans seemed like the perfect base to express this philosophy. Over the years, the

The Sunreef 60 'E' (below) featuring electric propulsion was launched in 2019; the first Sunreef 80 Eco sailing catamaran (above) is expected to debut in late 2021



shipyard's concepts evolved and today the Eco range fully illustrates the company's vision of green boating."

Following Sunreef's holistic approach to responsible yachting, the Eco range combines electric propulsion with an in-house solar-power system and ultra-light, high-performance batteries. Inside, a variety of natural, responsibly-sourced or recycled fabrics and materials are used to "balance luxury and sustainability". The shipyard is also developing green composites using basalt and flax fibre.

The Eco range offers both sailing and motor yachts, with models generally mirroring Sunreef's standard line of designs. Later this year, Sunreef's first Eco motor yacht will be the 80 Sunreef Power Eco, the green version of the popular 80 Sunreef Power model that premiered at Cannes in 2019 and has Rafa Nadal and a China-based client among many owners.

Other Sunreef Power Eco models on offer include the 60, 70, 100 and even the 40 Open, a high-powered cat that originally debuted at the Dubai International Boat Show in March 2018 before making its way to the Singapore Yacht Show the following month.

Eco versions are also available for the Sunreef 50, 60, 70 and 80 sailing catamarans, reflecting the new line of models launched from 2018 through 2020. The first Eco sailing yacht will be the flagship Sunreef 80 Eco, which is also scheduled to debut in the second half of 2021.

Sunreef's solar-power system has been engineered in-house and is manufactured by the shipyard using a patent-pending technology that enables panels to be integrated with structural composite components.

They can be mounted anywhere on the yacht's above-water surfaces including the hulls, mast, superstructure, bimini roof or bow terrace, which greatly increases the amount of solar power that can be produced on such yachts, compared to only offering solar panels on a roof, for example.

Less than 1mm thick, the panels feature "the industry's most efficient cells", according to Sunreef, with a peak performance of 24 per cent. Furthermore, they're also among the lightest in the industry, weighing about 1.8kg/sqm, whereas solar panels typically weigh between 8-15kg/sqm.

Furthermore, tests have proven that Sunreef's solar panels have a high resistance to shock and abrasion due to their advanced integration technique, which allows them to be used on any surface, including hull sides.

Sunreef prides itself on its customisation and clients can choose which parts of the boat they want covered in solar panels or go for the 'full package'.

As an example, the solar panels on the 60 Sunreef Power Eco



In order for their Eco models to be "green inside and out", Sunreef is also offering a range of sustainable and eco-friendly materials to be used in the interiors

can cover up to 68.6sqm of surface area, extending the solar energy generation to 13kWp. The 70 Sunreef Power Eco offers up to 104.4sqm of solar panels on board and generates up to 20kWp of power.

Remarkably, the upcoming 80 Sunreef Power Eco can be fitted with close to 200sqm of panels, weighing around 360kg and delivering 40kW peak per hour. This solar energy set-up can produce the energy of two generators and weighs about 800kg 'all in'.

As such, Sunreef's optimised solar-panel system can outperform a generator both in performance and weight. With the maximum solar panel surface, the 80 Sunreef Power Eco can also rely solely on renewable energy at reduced cruising speed.

INSIDE AND OUT

Sunreef is also proud of the power density (weight-to-power ratio) of its electric boat batteries, as reduced weight equates to less drag and less energy consumed during propulsion, increasing both performance and autonomy.

The upcoming 80 Sunreef Power Eco is equipped with custom-engineered marine battery banks, with recent developments making it possible to implement batteries with a density below 5.2kg/kWh. As such, batteries used in Sunreef's Eco range are now close to 30 per cent lighter than those commonly used in the yachting world.

The Eco catamarans can also be equipped with advanced electric propulsion, allowing power to be generated from the propeller rotation while the yacht is navigating under sail. This energy can be used to power the propulsion battery bank as well as the electronics on board.

As an example, while sailing on the trade wind route across the Atlantic, the yacht can recover between 10-15kWh with 7-10 knots of speed, depending on the model.

Lapp also emphasises that the Eco range also focuses on eco-responsible materials as well as sustainable energy sources. "If yachts are meant to be green, they should be green inside and out," he says, while emphasising that the yachts are finished "without any compromise on luxury".

The Eco range reduces the use of animal skins by offering a variety of natural fabrics including recycled leather and eco suede, which is made from recycled polyester and is among a wide range of recycled fabrics and materials on offer.

Interior floors can feature advanced hardwood flooring systems or reclaimed teak, salvaged from old houses, boats or other wooden structures. Compressed paper-based materials or recycled glass can be used for countertops to produce solid, practical and weight-efficient surfaces. Meanwhile, natural materials like linen, wool and bamboo combine durability with refined aesthetics.

As well as inside and out, Sunreef focuses on both top and bottom. Non-toxic, silicon-based bottom paints provide efficient protection against marine growth while offering a very low surface 'roughness'.

The paints are highly durable, impermeable and slick, so reduce drag and increase performance and energy efficiency. The shipyard says the silicon-based antifouling on the 80 Sunreef Power Eco increases speed by up to 5 per cent compared to traditional anti-fouling.



Bird's-eye view of the 80 Sunreef Power Eco (left), set to launch later this year; a sample of the curved solar panels (right) produced by Sunreef Yachts



LAGOON, EXCESS

Lagoon and now Excess benefit from efficient hulls by VPLP, a specialist in offshore racing, as well as Groupe Beneteau's focus on responsible production and sustainable materials.

Lagoon and Excess are the two catamaran brands in Groupe Beneteau's huge portfolio, although they vastly differ in scale and history. With over 5,000 units built since 1984, Lagoon is established as the world's leading producer of cruising catamarans and today offers 10 sailing models from the 40 to the Seventy 7, plus two large motor yachts, the Sixty 7 and Seventy 8.

Excess, the new brand creating more performance-focused sailing cats, only premiered its 12 and 15 models in 2019 followed by the entry-level 11 last year, with the 13 and 14 set to complete a compact range from 37-48ft.

Damien Jacob, Groupe Beneteau's Sailboat Product Director, emphasises that the wind is still the primary source of propulsion for most cruising catamarans, both within the company and around the world.

"When working at making our catamarans more sustainable, it's worth remembering that 90 per cent of the market are sailing catamarans using a clean and renewable energy, while powercats are still a niche accounting for just 10 per cent of the market," he says.

Groupe Beneteau's Product Marketing teams have three priorities when considering sustainability, including how naval architecture, engineering and propulsion systems can improve the vessel's overall efficiency. They also consider how to limit the use of raw materials and source more sustainable raw materials such as composite materials, timber, recycled plastics and natural fibres, as well as how to offer more comfort on board with less energy consumption.

As many Lagoon clients sail in remote areas, energy autonomy is a priority. R&D and engineering efforts are focused on energy management, targeting efficient energy production using solar panels

and wind turbines, and energy storage by switching to Lithium batteries that can take, on average, 15 times more cycles than the equivalent AGM battery, resulting in a longer battery lifetime and less waste.

"We also carefully select energy-efficient equipment and appliances to provide high levels of comfort on board," Jacob says.

As part of its efforts to reduce each boat's structural weight, Lagoon benefits from a long collaboration with VPLP (Marc Van Peteghem and Vincent Lauriot-Prévoist), the renowned naval architectural team specialised in offshore racing. Ongoing advanced studies lead to continually improving hull shapes and efficiency for both sail and power models.

About a decade ago, Lagoon was a pioneer in offering hybrid propulsion. Today, its efficient hulls combined with energy-efficient engines can be found on its motor yachts, the Seventy 8 – one unit is in Singapore – and the new Sixty 7, a model sold to Taiwan and Malaysia. Compared to traditional motor yachts, powercats don't need a gyro stabiliser and can save 50 per cent on fuel consumption.

With the Excess sailing cats, also designed by VPLP, Jacob says "we want to go further in reducing weight" and the Group is currently investigating lightweight interiors made of FSC (Forest Stewardship Council) timber with a PET (Polyethylene Terephthalate) foam core sourced from recycled bottles.

The Group's advanced building processes result in ongoing reduction of resin, gelcoat and timber consumption. Over the last decade, using closed mould technologies, low-styrene products, natural fibres for non-structural parts and new varnishing techniques for interiors has led to a 25 per cent reduction in VOC (volatile organic compounds) emissions.

Most of the timber used for interiors is sourced from environmentally managed forests certified by FSC or PEFC (Programme for the Endorsement of Forest Certification). This concern extends to suppliers, with Jacob stating the Group is currently testing sails and exterior canvas for biminis made from recycled materials.

An Excess 11 (left) was delivered to Japan in February, the brand's first unit in Asia; the first Lagoon Seventy 8 (right) in Asia is in Singapore; the Lagoon Escapade in Thailand (top)



FOUNTAINE PAJOT

The French builder is developing a new 51 sailing cat with a fully integrated solar power system, an illustration of what the yard promises will be a new sustainability-focused offering.

Fountaine Pajot has a history of offering eco-friendly solutions on its catamarans, which include the option of installing solar panels across the hardtop or on the aft end of the flybridge.

Solar panels are an option on the French yard's full range, which includes seven sailing catamarans from the new Isla 40 to the stunning Alegria 67, which made its Asian premiere at the Singapore Yacht Show in 2019.

The motor yacht range comprises the MY4.S launching later this year, the renamed MY5 and MY6 (formerly MY40 and MY44), and the Power 67, which was delivered to its owner in Greece last year and is the motor yacht version of the Alegria.

However, now in its 45th year since being founded in 1976, Fountaine Pajot has revealed that it's on the cusp of announcing wholesale changes to its approach to sustainability that will fundamentally change its offerings and steer the brand into a new generation.

Romain Motteau, Deputy CEO of Fountaine Pajot Group, said:

"This is going to be super exciting. This global vision will include new solutions that we will implement such as solar power and charging solutions, hybrid engines and even hydrogen in the future. We want to be a leader in sustainability and focus on innovation. We will make more announcements in the coming months about this journey and we want the whole industry to join us."

One of the brand's first steps on this new journey is the New 51, a model designed to succeed the Saba 50, which sold a remarkable 200 units. Instead of offering solar panels as an option to be added on flat surfaces, the 51 will have the option of solar panels fully integrated into the hardtop – marking a first for the brand – and which will work in tandem with lithium batteries.

The 51's optional solar-power system will produce 2,200W of power, far more than on any previous Fountaine Pajot models of a similar size, which usually produce about 500-600W, according to Motteau. The first unit of the 51 is expected to launch in February 2022, with delivery in April.

The model is first expected to be on public display next year at the International Multihull Boat Show at La Grande Motte in southern France followed by the autumn shows in Cannes, Genoa and Barcelona, and Annapolis in the US.

"The 51 is the first step in our new vision," Motteau says. "The model is really showing the trend of the future Fountaine Pajot boats."



The Samana 59 (left) and Isla 40 (right) launched in 2020 show Fountaine Pajot's existing solar power options; the New 51 (top) scheduled for 2022 will be the brand's first model to offer a solar system fully integrated into the hardtop



BALI

Already benefiting from Catana's history in performance-focused efficiency, Bali models are stepping into the future with a bio-membrane generator that filters grey and black water.

Bali has quickly risen to be among the world's leading builders of cruising catamarans since launching its first models in 2014 as an offshoot of the Catana Group, which by then had a 30-year history of building performance-focused sailing cats. Today, Bali offers seven sailing models from 40-54ft and now two motor yachts, the first only unveiled internationally in January 2020.

Olivier Poncin, CEO of Catana Group, emphasises that one of Bali's most underrated strengths is the performance and efficiency of its catamarans, due to hull design and build materials benefiting from Catana's history. He also says sustainability is growing in importance for both catamaran builders and owners, and that his company's new bio-membrane generator takes pride of place among its latest innovations.

"I believe progress in naval architecture on one hand and the awareness of ecological needs on the other will lead to important evolutions in the catamaran market. Bali catamarans will become even more comfortable, gain in performance and above all, will be much more environmentally friendly," Poncin says.

"We are now a pioneer in this field as all our Catana and Bali catamarans will be equipped with a bio-membrane generator that will filter 100 per cent of the grey and black water on board our boats, so more polluting discharge. This is a major step forward."

Every Bali boat ordered since September 2020 benefits from not one but two major new features, both designed to be environmentally friendly and improve comfort and safety on board.

Firstly, a special tap-fitted filtration system produces safe drinking water by purifying water from the tank. Originating from medical technology associated with food-grade active carbon filtration, the advanced endotoxin filter removes all bacteria, viruses, particles and macromolecules. It also filters out all organic molecules and chlorine, treats odours, yet conserves minerals.

"Gone are the all the constraints associated with bottles of mineral water that have to be bought, transported, taken aboard, stored somewhere, first full then empty, and finally disposed of," Poncin says.

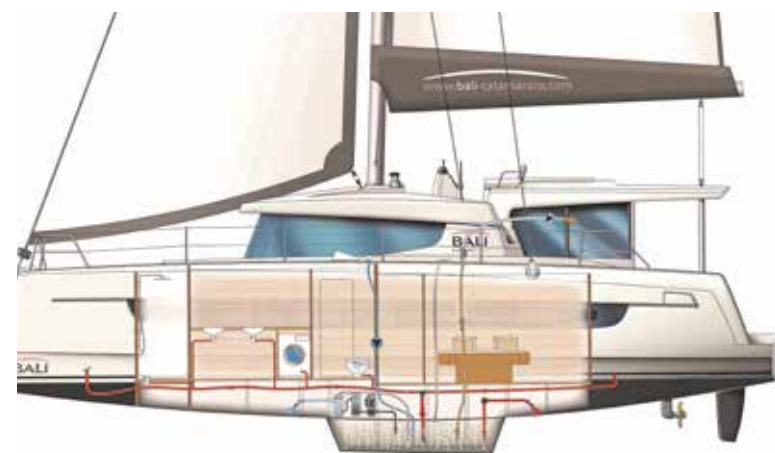
Secondly, every new catamaran is equipped with a remote submerged membrane bioreactor (BAMID), which sterilises all the

waste water on board by both bacterial degradation and ultra-filtration. This double process allows the discharge of totally depolluted and sterile water.

Operating silently and automatically, the system discharges completely depolluted water into the sea, compatible with MARPOL certification. The system removes the need for holding tanks and the associated constraints of emptying, maintenance and periodic cleaning.

"Everyone knows holding tanks are often full in the wrong places or at the wrong time. Now, there's also no more risk of bad smells – or unfortunate encounters when swimming around your boat," Poncin smiles.

"Instead, there's the satisfaction of not polluting the surrounding waters or marine wildlife, and of accessing areas of high ecological pressure such as nature reserves and parks with the utmost respect for the environment." ☺



Bali is implementing a submerged membrane bioreactor on its models to sterilise all waste water on board and discharge totally depolluted water

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