



# INSPIRED

SUMMER 2024

 **BARCLAYS** | Private Bank

# Contents

- 2 For the love of classic cars**  
Collector Robert Lewis talks about his astonishing private car museum, which is sure to be the envy of motor enthusiasts the world over.
- 6 In conversation with Sally Bolton OBE**  
The CEO of the All England Lawn Tennis Club speaks about her mission to ensure Wimbledon remains a jewel in the global sporting calendar.
- 10 Protecting cultural heritage in the face of danger**  
A former diplomat shines a light on his incredible work safeguarding key historical landmarks during times of conflict.
- 14 Will AI take my job?**  
As the hype surrounding AI grows, our Investment Bank explores the technology's game-changing implications for productivity.
- 18 Education in Africa: The power of self-reliance**  
Join us as we speak to Francesca Beausang, of Pharo Foundation, about her efforts to empower communities on the continent.
- 22 The future of real estate in Monaco**  
Discover how Mareterra, a pioneering new development, is set to transform the principality's in-demand property market.
- 26 The next generation of conservation**  
Two sisters share their insights on wildlife conservation and the perspective they bring as young donors on a shared family mission.
- 30 Wallet vs. wall: A collector's guide to digital art**  
Advances in technology have spawned a revolution in art, but can digital works sit comfortably in a collection alongside traditional forms?
- 34 The story of Dr Vijay Patel OBE**  
What motivates a successful entrepreneur? Find out as we interview the founder of a multinational health conglomerate about his inspiring journey.
- 38 Designing the supercars of tomorrow**  
Venture into a top-secret world as McLaren Automotive shares the inside story behind some of the world's most sought-after cars.
- 42 Forging a greener future**  
Read how one of Asia's best-known steel corporations reshaped its business to pursue a different vision.
- 48 Space: The ultimate travel high**  
Could a hobby once reserved for billionaires soon open up to more thrill-seekers? We lift the lid on a tourism opportunity on the cusp of taking off.
- 52 Important information**

Cover Photo credit: Iraq National Museum © ALIPH - Rosalie Gonzalez

# Welcome to our 'Inspired' magazine

We are delighted to present the second annual edition of 'Inspired'.

Our global client relationships and connections allow us to collaborate with incredible people and institutions, and it is our privilege to tell some of their stories here.

This year's publication is focused on the future and how private capital can play a critical role in driving a brighter tomorrow.

I would like to offer my sincere thanks to all who contributed and shared their inspiring insights in the articles overleaf.

Kind regards,



**SASHA WIGGINS**  
CHIEF EXECUTIVE,  
BARCLAYS PRIVATE BANK AND WEALTH MANAGEMENT

**Please note:** Barclays Private Bank does not endorse any of the companies or individuals referenced in the following articles.

Published August 2024.



# For the love of classic cars



Photo credit: Giles Chapman

Robert Lewis wasn't really into old cars, until one balmy afternoon he had an epiphany. Since then, there's been no stopping him, and he's curated one of the world's most impressive classic car collections. He and his wife Tanya have also raised millions for charity in the process.

Collecting classic cars can be oddly subjective. It often coalesces around an obsession with one make of car. Often just a single model. When a collector invites you to inspect their stable of Maseratis or Cadillacs, the timeline of nuanced variations of the same car might leave you, if not cold, then lukewarm to their addiction.

Even Ferraris. One or two will whet anyone's appetite for an open road or racetrack, and some right-foot urgency. A hangar-full when they're uniformly low, lithe, bright red and V12-powered, though? Seems a bit maniacal...

## A WONDERFUL PARADOX

Robert Lewis is not like that. He has a gleeful enjoyment in contrast, and he gets as much satisfaction from well-preserved mundanity as he does from a 250mph road-rocket. Indeed, here's a wonderful example of this paradox. There are 99 Aston Martin Vanquish Zagato Shooting Brakes on this planet, and Robert has one. He loves every sweep of its dramatic lines, but he's never been anywhere in it. "So, it has zero miles on it," he says. "We just start it up occasionally."

However, admire his old lorry that used to deliver cans of petrol to garages and Robert overflows with reverence. "I absolutely love this, even though it only has a top speed of 19mph. Just look inside – look; it's pretty rudimentary, isn't it? How they ever drove this half-way across England, I just don't know. I've had to put an electronic ignition in it to make it bearable, but I love all the authenticity in its Shell-Mex BP livery, sign-painting and cargo, all of which I've restored. I love to see this wonderful piece of history properly preserved."

There's an unusual collecting mindset here, clearly, and it all began with an idle afternoon in Monaco almost 20 years ago.

## A LUCKY COINCIDENCE

"To be quite frank, I was in Èze and a bit bored. So, I went out for a walk and came across a sign for a Bonhams auction. I hadn't that much of an interest in cars, really.

I usually drove a Renault Clio, and although my wife did persuade me to buy an Aston Martin DB9, I didn't really like it – I'd be happier driving an old pick-up!

"But at this auction was this wonderful car turning on a rostrum, a Mercedes-Benz 300SC cabriolet, 1949 and Europe's first car with fuel injection, so quite important historically. Just magnificent. When it came up, I thought how much I loved that car.

"I asked my wife 'Shall I just buy a classic car?' and she said: 'It's up to you'. I think I paid £80,000 for it. My first drive was just fantastic, and I've been to loads of places in it [...] often on rallies with lots of Ferraris; I just cruise past the breakdown trucks attending to them!"

Robert brought the Mercedes home to the UK and put it in one of his empty farm buildings. This simple parking manoeuvre seemed to press a start button: he decided he'd use this covered space to build up a collection. It was 2005.

## 'A GENUINE BARN FIND'

He started acquiring in multiple directions. On the one hand, he assembled a line-up of coveted 1920s and '30s British high-performance cars, including a Lagonda Rapide, a Lagonda V12 saloon, an Alvis Speed 20 Vanden Plas and a Sunbeam 3-litre Twin-Cam; this last one was that unicorn every enthusiast longs for – a genuine 'barn find', in 2008.

"It was the 1926 London Motor Show car," Robert explains, "and I had it totally restored – well, I had to, because there was no bodywork left, no interior, not even a dashboard."

Then, taking a different tack, he assembled self-contained sets of the most famous MGs – the PA, TD, K2, K3, MGA and MGB models – and Jaguars – SS100, SS1 Tourer, SS Airline, C-type, D-type, E type and a sought-after Coombs-edition Jaguar Mk2 3.8-litre saloon.

Robert and his wife Tanya were also drawn to the exhilaration of historic motor racing. He selected a faithful recreation of Lagonda's 1939 V12 Le Mans car, which he's campaigned six times at the Le Mans Classic festival, while Tanya has regularly donned helmet, goggles and competitive spirit in their delightful Frazer-Nash Le Mans Replica.



## SO MUCH TO ADMIRE AND ENJOY

As Robert leads you from one car to the next, your head spins like a well-oiled propshaft. His Mercedes-Benz 300SL, for example, is one of the finest of these 'Gullwing' beauties on Earth, and his Cobra among the last batch overseen by the car's originator, Carroll Shelby, himself. His Ferrari 250 GT is a gorgeous 1950s supercar most people only know of from reference books. There is exquisite taste at work here, yet the collecting rationale rises above a mere wishlist.

"We've only ever bought cars that, to us, are art," he explains. "I was in such boring businesses that when, all of a sudden, cars just appeared to me, I realised every car here to me has to be beautiful."

"Take my Triumph Dolomite roadster. They made very few, and it's not that brilliant to drive, and if you sit in the dicky seats at the back, you're going to get very wet if it rains. But the whole style and character is just fantastic, and I love it."

Encouraged by a friend and fellow fanatic, Robert has also been seized by the 'petroliana' collecting bug. Petroliana is the hardware (pumps and equipment) and regalia (enamel signs and memorabilia) of petrol and oil retailing.

From the 1920s to the '60s, fuel companies vied for drivers' attention with their merchandising, at a time before motorways and when there was an independent garage in every village. The stuff is long-vanished from our streets and byways, and is now hugely valuable and hard-to-find.

## TRULY SHINING EXAMPLES

The illuminated glass globes that crowned old petrol pumps, for instance, can be worth several thousand pounds apiece, while a single enamel sign might command the same value as a brand-new BMW. Becoming adept at spotting gems, nonetheless, wasn't easy. "The first four [enamel] signs I bought, my friend looked at (them) and told me to put all four into a skip – they were all fakes, totally valueless."

"It's a hard lesson, but it's the only way you learn. Now I can tell instantly. I have as much fun with the memorabilia as I do with the cars. I can restore it myself. I'm hands-on and I love renovating things, conserving and being imaginative."

## RAISING £8 MILLION FOR CHARITY

As if the nostalgic environment and setting to Robert's collection was not distinctive enough, it has another unique aspect.

"We run a very big charitable foundation set up in the 1960s by my father, and I now personally want to give back. So, we thought we'd open the collection up to group visits from companies and organisations in exchange for charitable donations, while some charities we host for free."

"The biggest we've had is about 3,000 people in a single day, with 1,000 cars parked here on our fields." Robert and Tanya have, through their hosting, raised an astounding £8 million for various children's and medical rehabilitation charities, and Help For Heroes.

Although the collection is not open to the public, invited guests love to have Robert's guided tour, and the occasional firing-up of a healthy classic engine.

## PERFECTION IS DEMANDED

"Look, I'm very fussy," Robert chuckles – although, of course, he's dead serious. "I realised that because I'm very fussy, I can only collect cars that could be made into concours condition. So, every single car you'll see here has been totally restored, 100% correctly, with full documented histories. That's very hard to find in the pre-war realm of cars, as you can imagine."

"But I have to do everything perfectly. If we acquire a car that isn't, then I'll make it perfect; I have an in-house machine shop, a paintshop, our own mechanics, we have everything here. We always have something in progress, and it often costs the purchase price of the car again to do it properly."

The collection is an evolving thing, subject to interesting influences. One is the increasing involvement of Robert and Tanya's son Zach, whose love of Formula 1 and modern supercars is reflected in recent additions. 'Zach's Garage' is a building full of gleaming Grand Prix cars and Lamborghinis in a line-up starting with the original 400, running through an eye-catching Miura in period orange, and culminating in a pulse-raising Aventador.

## KEEPING IT IN THE FAMILY

And you can't fail to enjoy the delicious mismatch between the Koenigsegg Regera hypercar that's close to Zach's heart and Robert's latest obsession, an upright 1903 Georges-Ricard that will tackle this year's London-to-Brighton Veteran Car Run. The Regera reaches 240mph, the Georges-Ricard struggles above 10mph, and letting it coast to a halt is better than braking, which could damage its 120-year-old power unit.

"I have to thank Tanya for all this," Robert says. "She's lived with it all and has accepted me disappearing to Europe, the USA and Japan to buy cars. She's been there, helped me and never queried a thing. She's a talented artist and has finished off lots of petrol pumps and things for me."

"Also, my son Zach has worked very hard helping me run this place for the past five years. Plus, of course, all my team: they contribute hugely because I'm not a mechanic."

## BUYING THROUGH LOVE

Robert likes spur-of-the-moment opportunities that he feels won't arise again. Such as a Mini Cooper S 1275 owned since new by the same man, and the third example ever made. Or an extraordinary Volkswagen Beetle that had £60,000 lavished on it by an owner who then suddenly lost interest.

"Someone will often ask me what car to buy that will go up in value, and I say 'none!'," he booms, emphatically. "Buy because you love it. If you keep it for a number of years because you enjoy it, then it might go up, perhaps not an extraordinary amount."

"We never buy a car because it's valuable or we think is going to go up because, inevitably, it won't. I could never advocate that. But then of course, we never buy a car to sell..."

"I have to do everything perfectly. If we acquire a car that isn't, then I'll make it perfect."



Photo credit: Giles Chapman



Photo credit: Giles Chapman



BARCLAYS PRIVATE BANK | INSPIRED MAGAZINE

Photo credit: Giles Chapman



# In conversation with Sally Bolton OBE



Photo credit: AELTC\_Charlie Kent

We spoke to the CEO on a mission to ensure that Wimbledon remains one of the world's most prestigious and popular sporting events for years to come.

Ahead of The Championships, Wimbledon, of which Barclays is the proud Official Banking Partner, we spoke to the Chief Executive tasked with modernising a prestigious event that's loved as much for its heritage and traditions, as it is for its on-court action.

In the sporting world, finding a way to modernise while maintaining traditional values requires a delicate touch. What makes an event great can sometimes be lost amid the race to keep up and maximise revenues. The All England Lawn Tennis and Croquet Club, to give it its full name, has always prided itself on its ability to manage these two seemingly polar opposites, and Wimbledon now stands proudly as one of the biggest, most recognisable sporting events on the planet.

Sally Bolton OBE is the woman whose job it is to make the magic happen. Bolton became the Chief Executive of the All England Club in 2020 and has set about building on the progress of her predecessors and enhancing The Championships to embrace the modern world.

"I want to finish some things that were started before I joined," Bolton says. "There are some things I want to have delivered start to finish. And some things I want to have started and put some good, possibly literal foundations in to enable my successor to take forward and future boards and executives."

Bolton took over from Richard Lewis CBE, whose eight-year reign saw Wimbledon build a roof on No.1 Court to accompany the one over Centre Court, vast increases in prize money for players at The Championships, and also the acquisition of the Wimbledon Park Golf Club, situated across the road from the All England Club, which it hopes to use to expand and enhance The Championships.

## FINE LINES

The proposed development of the golf course represents perhaps Bolton's biggest challenge. After opposition from some local residents, the plans, which include more than 30 new grass courts and an 8,000-seater Show Court, are now with the Mayor of London's office and a decision is expected this summer. It's been a protracted experience but as Bolton points out, "We're also proposing to set aside 27 acres of land, which will significantly increase publicly accessible green space for Londoners, with 23 acres to the south of the site and four acres to the north."

She continues, "That balance of doing what's right for the future, (for) The Championships, to protect our pinnacle position and to keep evolving and growing and developing is very importantly balanced with how we can give back to our local community."

Treading that fine line between modernisation and tradition runs through every element of her job, with the emphasis on evolution rather than revolution. Bolton points to the recent change to the strict all-white clothing rule, allowing women to wear dark or coloured under-shorts to enable them to feel as comfortable on court as possible. Or the Wimbledon Queue, another example of soft change.

"The tradition of the Queue is not the tradition of people standing in a line, that's not the bit we're protecting," she says. "The tradition of the Queue is the accessibility of Wimbledon and that if you've got the tenacity, you can stand in a queue and get a ticket on the day. There aren't any other major events of our size that offer that opportunity. So if I think about the tradition I'm trying to protect, it's the ability to access the ticket on the day, it's not standing in a line. Because in 20 years from now, people won't be standing in a line in the same way. But we will be protecting the heart of that tradition."

"It's about really figuring out which is the part that is critical, versus which is the bit that that's the way we've always done it," she says. "Getting fresh blood into the organisation really helps, because those people will come and say, well, just talk to me again, about why exactly we do it that way."

## A NEW ERA

One of two daughters to a sports-loving father, Bolton came to tennis from rugby league, via athletics. While some people encouraged her on the way up, others were less friendly. "Pretty early on in my career, the people who said things weren't possible were often the ones that inspired me to get on to do it, to prove it was possible," she says.

"Back then, nearly 30 years ago, the industry wasn't really very diverse, and the types of jobs weren't very diverse either. I came out of university with a business degree, with a major in public relations, so trying to find a spot when you have that background didn't seem obvious. I think my motivation was often where it didn't seem like it was possible to do something, I was always quite keen to get in and find out if that was true."

One of the things Bolton is most proud of is the way Wimbledon has offered so many important roles to women. In 2023, Deborah Jevans CBE became the first woman to be appointed Chair and this year will be Denise Parnell's first as The Championships' referee. "As a senior female in this sector, I recognise that part of my job is being visible in this role so that women and young girls coming through, if they can see it, they can believe that it's possible," she says. "I think about the All England Club and the way in which the trophy presentation will look this year; we have a new female chair, we have a female chief executive, our referee this year is a female for the first time. So that's a real statement of the evolution of sport, generally, but the evolution of the All England Club too; you can see it's possible because it is."



Photo credit: AELTC\_Joe Toth

## INVESTING IN THE FUTURE

In addition to hosting The Championships, Wimbledon also has a unique role in its contribution to tennis in Britain. Every year, the surplus from The Championships (in 2023 it totalled £48.8 million) is given to the Lawn Tennis Association, which invests that money into driving participation and making tennis accessible to everyone. It's a role that the other Grand Slams, who control participation alongside running their event, are understandably envious of. "We all know about the peaks in people picking up a racquet and heading off down to the park during the two weeks of Wimbledon," Bolton says.



"So we're hugely proud, albeit it's not our job to look after performance and participation, we're really proud of the role that we play in investing into that."

For many people in Britain, tennis still means the two weeks of Wimbledon. For Bolton and everyone behind the scenes, it's a year-round job. Bolton doesn't mind the misconception. In fact, she rather likes it.

"I think people assume you've got your feet up, which actually is OK because what that comes from is the sense that The Championships happen by magic," she says. "And that's actually a good thing. Because a bit like the Wizard of Oz, if you could see behind the curtain of all the blood, sweat and tears it takes to deliver those two weeks, it would lose something. So if people think that we sort of pop up a couple of weeks before and make it happen, I'm really happy with that."

Bolton talks of Wimbledon's quest for perfection but is also keenly aware that it needs to be as open and accessible as possible. "We have a fantastic Work at Wimbledon initiative, where we work with a number of local charities on local people who are facing challenges and barriers to employment," Bolton says. "And we help them to get the confidence to apply and then support them through that process. In 2023, we had just over 40 people working with us at The Championships, across 11 different roles, who would otherwise perhaps have found it very challenging to get into employment."

"Thinking about our Set for Success Programme, which is through the Wimbledon Foundation and supported by Barclays, we're very much focused on kids who might be at risk of exclusion from school and supporting them with athlete mentors to give them the skills that they need to really succeed. It's about ensuring that Wimbledon is welcoming in the broadest possible sense, and really supporting people to believe that they've got an opportunity to be part of what Wimbledon is."

#### VALUES AND REPUTATION

The future for Wimbledon seems rosy but Bolton's not resting on her laurels. The competition for eyeballs is hotter than ever, while a younger generation, with shorter attention spans, offers an ever-growing challenge. Tennis, she says, is a thriving sport and when she's finished in the job, she wants to look back and know she's done everything she can to keep Wimbledon in its rightful place.

"It's about maintaining the values and the reputation of the organisation," she says. "It's about making sure that we've got growing audiences, making sure that our facilities are continuing to evolve and grow and develop to support the very many users. But I think most of all, the ingredients that go into making us more open and accessible and retaining that position at the pinnacle of the sport will probably be the things that I hope I'm most proud of when I look back."





# Protecting cultural heritage in the face of danger

Valéry Freland, Executive Director of ALIPH, explains how the foundation works to safeguard cultural gems in hugely challenging conditions.

One-time French diplomat Valéry Freland is on a mission to preserve and restore some of the world's most important examples of cultural heritage. As Executive Director of ALIPH – the international alliance for the protection of heritage in conflict areas – he oversees projects in some of the most challenging conditions imaginable. Pascal Nagel, our Head of Swiss Onshore, recently caught up with Valéry to learn more about ALIPH's work and its plans to expand its remit to protect cultural heritage around the world.

**PASCAL NAGEL (PN): WHAT IS ALIPH'S MISSION?**

**VALÉRY FRELAND (VF):** We were created in 2017, after the massive destruction of cultural heritage in Timbuktu (Mali), Palmyra (Syria) and Hatra and Mosul (both Iraq), with the aim of protecting cultural heritage by supporting projects on the ground in conflict areas. Our ultimate goal is to contribute to local long-lasting development and to liaise closely with communities: in short, to help build peace. We've been involved in 450 projects in 35 countries, including Ukraine more recently. We recently expanded our support to help protect cultural heritage impacted by climate change in vulnerable countries.

**PN: WHY IS IT SO IMPORTANT TO PRESERVE CULTURAL HERITAGE SITES?**

**VF:** Cultural heritage is part of our history, our memory, and one of the most tangible expressions of our identity. Many people who live near historical sites make a living from them. Our heritage is a connection between the past and the present, and a cornerstone upon which we can build a shared future. Cultural heritage is not only a source of enduring development, but also of wonder.

I was recently in Mosul to mark the reopening of one of the city's oldest mosques, one of the many rehabilitation projects that we have supported there. After the ceremony, one of the community elders came to us with tears in her eyes, heartened by the restoration. Cultural heritage speaks to everyone's soul.

**PN: WHAT MOTIVATED YOU TO BECOME INVOLVED IN THE FOUNDATION?**

**VF:** There are four reasons. First, as a career diplomat, I wanted a new challenge. Second, since childhood, I've had a passion for heritage: both nearby, such as the towns and villages where I grew up, and distant, such as in Afghanistan. I remember being deeply affected by the Taliban's destruction of the Bamiyan Buddhas in 2001. Third, I had the rare opportunity to create a new international organisation from the ground up. And finally, I have the chance to go on site, meet local people and communities, and see our projects moving forward. The work is extremely rewarding.

**PN: WHAT ARE THE DIFFERENT STAGES OF YOUR WORK?**

**VF:** Prevention of damage involves the documentation of collections, monuments and intangible heritage, improving security measures at museums and heritage sites, and providing training on what to do in emergency situations. We have carried out this kind of work many times, but it is a challenge: how can we anticipate, ahead of time, the places that will be most at risk? Research must provide us with better information on possible conflicts and threats linked to climate change.

We also intervene in the midst of conflicts. In doing so we need to consider the nature of the conflict, how to access the territories impacted by the war, the type of military intervention, and the presence of local partners.

Then comes the time for rehabilitation in the wake of a conflict. Protecting heritage can help build peace by combatting the illicit trafficking of cultural goods – which can be a source of funding for terrorism – and also by contributing to a vital dialogue between communities or parties. Restoring heritage can also help the social and economic development of a region through job creation and promoting the cultural tourism economy. Finally, safeguarding heritage can play a key role in the fight against climate change. For centuries, local communities have been using sustainable construction practices and ways to manage water, land and crops that are adapted to the local environment. These practices can be effective in mitigating the impacts of climate change.



PN: ARE THERE ANY PROJECTS YOU'RE PARTICULARLY PROUD OF?

VF: Our projects always produce tangible results, and this is a source of daily satisfaction. But naturally, some of them hold a special place in my heart.

These include the projects we've completed in Mosul, such as the restoration of the Al Masfi mosque and the historical Tutunji House. I'm also proud that we were one of the very first organisations on the ground in Beirut in 2020 after the explosion in the city's port, as well as in Ukraine since the beginning of the war in 2022. Indeed, to date, we've contributed to protecting more than 400 museums, libraries and archives and their collections in Ukraine. Our work in Afghanistan with our partner, the Aga Khan Trust for Culture, to protect the sublime Buddhist site of Mes Aynak, is also outstanding.

PN: WHAT ARE THE BIGGEST CHALLENGES INVOLVED IN PROTECTING SITES IN CONFLICT AREAS?

VF: One of the main challenges is to identify potential local or international partners that are willing and able to operate in these complex environments. We also want to ensure that a project will have the biggest possible impact in terms of training, job creation, awareness raising, sustainable development or fostering dialogue between communities. Of course, other considerations we face are related to security, instability, weak institutions or infrastructure and, sometimes, the potential for corruption. But we overcome these challenges with systems for monitoring and evaluation, and a team of international staff who have worked in these environments before.

PN: WHY IS THE ENVIRONMENT AN IMPORTANT CONSIDERATION?

VF: Addressing the impact of climate change has become one of ALIPH's priorities. In many countries in which we operate, climate change aggravates and is sometimes even the cause of violence and conflict. Droughts, limited access to water and natural disasters can all contribute to creating situations that are unsafe for people and their heritage. We've seen this recently in Sudan, where the Nile floods have threatened the site of Meroe, and in Libya, where torrential rains destroyed the historic centre of Derna.

Unfortunately, it is sometimes where the impact of climate change is felt most strongly that implementing projects is most difficult. This summer we're launching an ambitious call for projects that will be dedicated specifically to tackling the issue across Africa.

PN: WHY IS THE FOUNDATION HEADQUARTERED IN SWITZERLAND?

VF: ALIPH's founders chose Geneva as its headquarters because it's the capital of humanitarian action and peacebuilding – two concepts that are at the core of our foundation's mission – and in turn, the Swiss authorities gave us the status of an international organisation. Moreover, in Geneva, we benefit from an exceptional ecosystem oriented towards overcoming international challenges and responding to global crises. And breathing in the lake air soothes the spirits!

PN: HOW IS THE FOUNDATION FUNDED?

VF: ALIPH is a public-private partnership: we are supported by eight member states (France, United Arab Emirates, Saudi Arabia, Kuwait, Luxembourg, China, Morocco and Cyprus) and three private donors (Dr. Thomas S. Kaplan, the Getty Trust and the Fondation Gandur pour l'Art). Some of our projects receive support from other funders, such as the European Union, the US State Department or Monaco.

Unfortunately, because of the increase in the number of conflicts and the worsening impact of climate change, protecting cultural heritage in vulnerable countries is a "growing market". So we are now looking for new donors. In 2023 alone, we had to respond to no fewer than five crises: Ukraine, but also Syria/Turkey and Morocco after the earthquakes, Libya after the floods, and South Caucasus. ALIPH is always among the first to intervene on the ground.

PN: HOW DO YOU SEE THE FOUNDATION'S WORK PROGRESSING OVER THE COMING YEARS?

VF: ALIPH's services will be needed more and more. Our heritage is threatened perhaps more than ever before by a lack of maintenance, unbridled urbanisation, climate change and war. Cultural heritage is no longer just collateral damage in conflicts, but very often a target, or even a weapon of war, as we saw from Hatra and Mosul, when Daesh broadcast images of the cultural artifacts they destroyed as if they were trophies. And each time, the reconstruction needs, as well as the associated costs, are immense.

Therefore, we must work on the long-term sustainability of ALIPH. We must also maintain our unique agility, based on our start-up mode and our anti-red tape approach, that allows us to intervene very quickly, sometimes in 24 hours. Being able to intervene quickly to protect cultural heritage can mean the difference between preserving something precious or losing it forever.





# Will AI take my job?



This article is based on a report lead-authored by Christian Keller, Managing Director and Head of Economics Research at Barclays Investment Bank, in partnership with the IBM Institute for Business Value. They explored how AI could unlock productivity gains in workforces around the world.

When the UK government hosted the 'AI Safety Summit' at the tail end of 2023, it was an acknowledgement of the opportunities, but also the challenges, that are emerging from the rapid evolution of Artificial Intelligence (AI).

The hype surrounding AI is difficult to ignore, thanks to a near-constant stream of opinion pieces, news articles and panel discussions. However, there is one area that is arguably overlooked in current rounds of analysis: the potential for AI to unlock meaningful gains in labour productivity.

Many workers – particularly those in so-called 'white collar' jobs – are anxious about the implications of this nascent technology. One common train of thought: if a machine can be trained to work faster and more accurately than I can, and never needs to take a sick day, then why would a company employ a human instead?

Such fears may be misplaced, as we explore in this article.

## PACE, POTENTIAL AND POLICY

Let's start by considering the US – the world's biggest economy and a hotbed of technological innovation.

Recent research<sup>1</sup> found that around 80% of the US workforce could have their roles affected by Large Language Models (LLMs) in some way. Large Language Models are a means of summarising large volumes of content and documentation, at pace.

Such tools are poised to expand rapidly, for two key reasons. First, the technology is available to a very wide audience, on infrastructure that is already in place. Any user can issue basic instructions to a tool such as ChatGPT, the bot developed by OpenAI and launched in November 2022, without having to learn any special programming language. Software providers, for their part, can roll out

AI capabilities by bundling them into pre-existing search engines, office suites or even incorporate launchpads into user hardware.

Second, these tools are not confined to any particular task, function, problem or sector. This makes them usable across different disciplines. Once an LLM is trained on a body of text, for example, it can summarise a legal document as well as it can a medical document or an insurance document. Generative AI systems are not limited to words, either: they can combine text and images with video and audio and even robotic functions.

These two core attributes – accessibility and versatility – suggest that a broad rollout of AI could encounter fewer obstacles than previous advances in technology. By allowing simple or routine tasks to be performed with greater speed and efficiency, it could result in a genuine boost to the production of goods and services, across a variety of industries. As Jerry Kaplan, a Stanford academic, put it several years ago: "automation is blind to the colour of your collar."

However, unlocking the full potential of AI technology, while simultaneously limiting its negative effects, will require the right policy mix – not only from a regulatory standpoint, but also at the enterprise level. We're not there yet.

When suitable guardrails are in place, workers who currently fear for their roles may take comfort from the gains in efficiency afforded to them by these technological advancements.

<sup>1</sup> Arxiv.org, 'GPTs are GPTs: An Early Look at the Labor Market Impact Potential of Large Language Models', 21 August 2023



### A MUCH-NEEDED ECONOMIC CATALYST?

In many ways, the evolution of AI could be a welcome shot-in-the-arm for the global economy.

Ageing workforces in developed countries, and low per-capita output in developing countries, currently act as drags on economic growth. AI could help, in both respects.

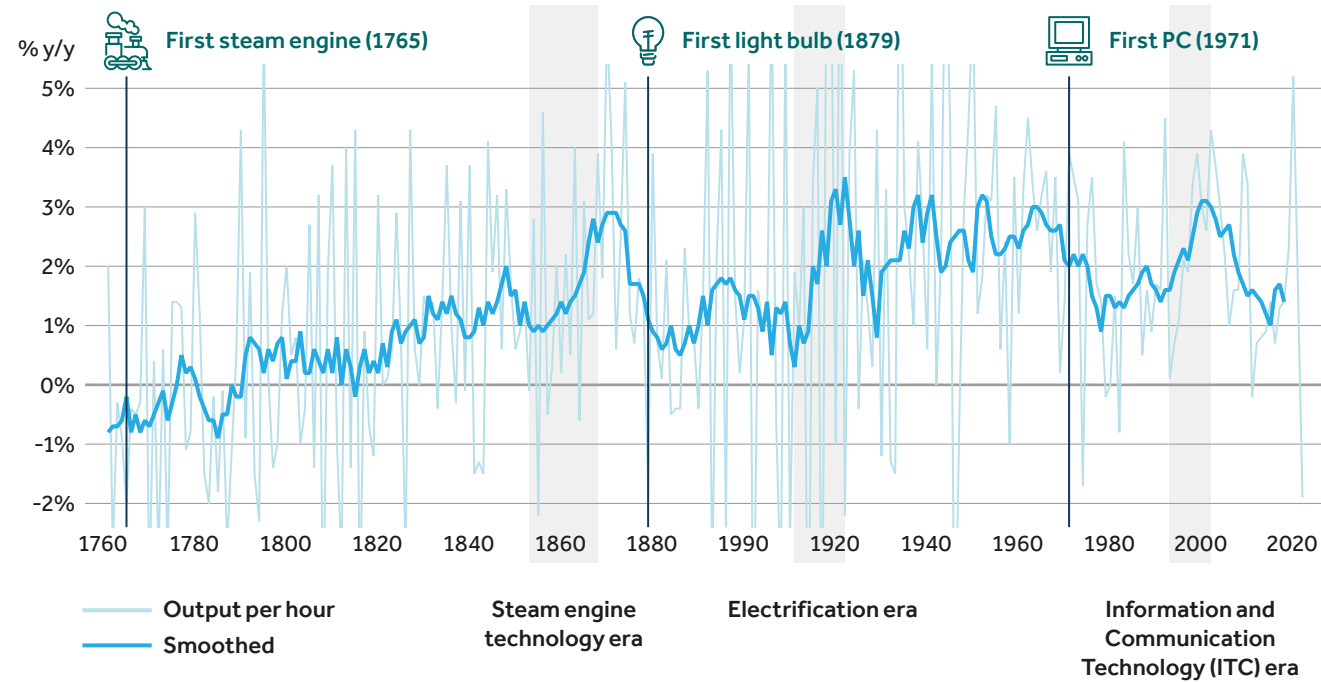
How so? Put simply, economic growth is driven by how much labour you put in, and how productive it is. If mature economies can get more out of their pools of labour, raising output-per-hour-worked, they can offset a loss of capacity due to ageing.

For countries such as Japan, Germany and Italy, for example, workforces are shrinking rapidly enough to require big leaps in labour productivity, just to maintain the kind of GDP growth levels that prevailed before the pandemic.

But such advances are possible. According to estimates by Barclays Research analysts, most countries would have to attain similar levels of growth in labour productivity that they achieved between 1990 and 1994, to reclaim the average pre-COVID-19 rates of GDP growth in 2033.

And in the emerging world, where skills and education levels tend to be limited, GDP-per-hour-worked is significantly lower. But output could be boosted if workers were to shift into AI-aided services industries. "Service-isation" could take on the role that industrialisation played in the past, when developing nations experienced large gains in productivity and real incomes as workers moved from agriculture into manufacturing.

### THE EFFECT OF TECHNOLOGICAL ADVANCES ON LABOUR PRODUCTIVITY



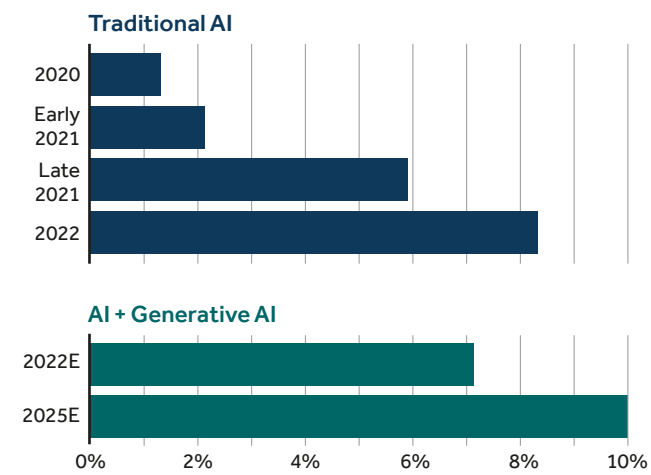
### IS IT WORTH IT?

While the hype around AI is high, early returns on investment (ROI) are low, according to estimates gathered by the IBM Institute for Business Value. Few companies so far have been able to achieve double-digit returns. But successful adoptions of AI could follow a "J-curve" trajectory in ROI – a slow start followed by a rapid rise.

If all this can come together harmoniously, then the value impact of AI could be amplified 17 times, according to the IBM Institute for Business Value.

For many people monitoring this space, that is something to get excited about.

### RETURNS ON INVESTMENT FROM AI



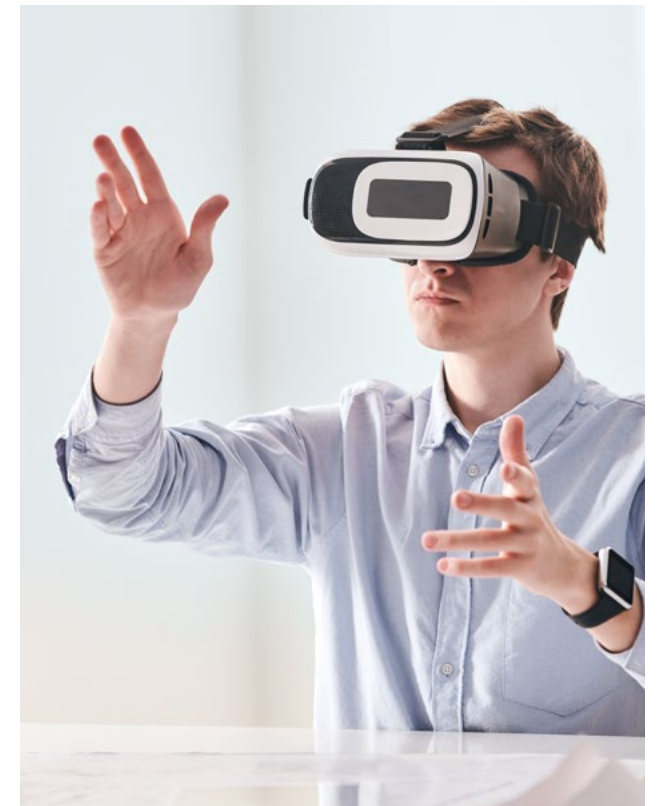
Editor's note: This summary is derived from a whitepaper originally produced by Barclays Research in collaboration with the IBM Institute for Business Value. The information provided does not constitute 'investment research' and should not be relied on as such, although it may contain references to views or information published by the Barclays Research department. Investment decisions should not be based upon the information provided.

### THE MILLION-DOLLAR QUESTION

All of this bring us nicely to the question raised at the top of the article: Will robots take your job? Probably not, and they might even make it more rewarding.

The IBM Institute for Business Value has found widespread enthusiasm among business leaders to use AI as a complement to human labour, rather than as a substitute for it. In an August 2023 survey of 3,000 C-suite executives across 20 industries and 28 countries, 87% of respondents saw employees benefitting from, rather than being replaced by, generative AI.

Ultimately, the benefits for workforces are likely to be driven by a combination of factors, according to the IBM Institute for Business Value, including equipping staff with new skills and fostering innovative workplace cultures that are agile in the face of change. Overlaying all of that is the need for workflow integration, ethical management, and appropriate governance.





# Education in Africa: The power of self-reliance



Francesca Beusang, of Pharo Foundation, discusses the role that education, water and employment could play in empowering communities in Africa.

Pharo Foundation wants to help change lives in Africa. As Global Director of Communications and Partnerships, Francesca Beusang is crucial to this mission. Isabelle Hayhoe, our Senior Philanthropy Adviser, spoke with her about the importance of listening to communities on the ground and the value of reassessing philanthropic goals.

ISABELLE HAYHOE (IH): IT'S A PLEASURE TO SPEAK TO YOU TODAY. CAN I START BY ASKING YOU TO TELL US A LITTLE ABOUT THE FOUNDATION'S MISSION?

FRANCESCA BEUSANG (FB): Pharo Foundation has a vision for a vibrant, productive and self-reliant Africa. Set up in 2011, we run economic development projects in Somaliland, Ethiopia, Rwanda and Kenya, with a focus on three core missions: education, water and productivity.

First, we're looking to empower the next generation through improved access to high-quality and affordable education. Second, we help to address Africa's water scarcity problem by providing access to a safe and affordable source of water. Finally, we work towards the removal of structural, health and financial obstacles to productivity and employment.

IH: THESE ARE SUCH WONDERFUL GOALS. IT MAY SOUND LIKE AN OBVIOUS QUESTION, BUT WHY ARE THESE MISSIONS SO CRUCIAL FOR COMMUNITIES IN AFRICA AND PERHAPS EQUALLY IMPORTANTLY, HOW ARE THEY LINKED?

FB: Water scarcity is the mother of all problems in East African communities<sup>1</sup>. Without water, there is no life. Hence in many ways, this is the starting point of all our efforts.

Water is the pre-condition of agricultural development, which can help alleviate a community's food problem<sup>2</sup>. In turn, children with full bellies can take advantage of the educational opportunities we provide them with – from kindergarten to secondary school<sup>3</sup>.

The foundation has built eight Pharo Schools across Somaliland, Ethiopia, Kenya and Rwanda, supporting more than 3,600 students.

We also run 15 early childhood education centres within public schools in Hargeisa and another three in Berbera, Somaliland.

IH: EDUCATION MAKES SUCH A DIFFERENCE ON SO MANY LEVELS. DO YOU ENCOUNTER MANY OBSTACLES?

FB: Absolutely. We prize education because it is one of the few things that can never be taken away from our communities. With a solid education, young people should be in a position to secure a livelihood through productive employment.

Sadly, there are many obstacles to this in the African context. Two amongst them are ill-health and the mismatch between the worlds of education and work. We often witness a lack of adequate preparation of graduates, which results in employers rarely finding exactly what they are looking for, and unemployment or underemployment being widespread.

IH: ACTIVELY LISTENING TO COMMUNITIES IN AFRICA MUST BE HUGELY IMPORTANT TO THE FOUNDATION'S WORK. HOW DO YOU ENSURE YOUR WORK REFLECTS WHAT THESE COMMUNITIES ACTUALLY NEED?

FB: Our priority has always been to deliver for our communities, which would be impossible without them being part of the process from idea generation. This goal has been a constant for us and is the main reason we maintain regular consultations with local people.

The communities we work with also suggest new locations for our projects – for example, many of our water dams are built on land donated by community members. We are also deeply rooted in local governments and have a strong reputation amongst them.

<sup>1</sup> United Nations, 'Water crises threaten world peace', March 2024

<sup>2</sup> Unesco, 'UN World Water Report', 2022

<sup>3</sup> Greenpeace, 'Water woes: 13 undeniable facts about Africa's water scarcity', 22 March 2024



IH: WHAT HAVE BEEN YOUR PROUDEST ACHIEVEMENTS THROUGH YOUR WORK WITH THE FOUNDATION?

FB: Seeing our secondary school graduates end up at colleges such as Stanford or Williams brings home to me how much we are changing lives. Another proud achievement is our intervention during the 2022 drought when we held an emergency committee meeting and reached out to the government's National Drought Committee (NDC) with a plan.

We ended up donating 1,000 water trucks to the NDC and helped the government by putting together a water truck field mission, to personally distribute water to those villages in desperate need and to people who had been displaced.

IH: YOU DESCRIBE THE FOUNDATION AS HAVING GONE THROUGH DIFFERENT ERAS. WHY DO YOU THINK IT IS SO IMPORTANT FOR PHILANTHROPISTS TO CONSTANTLY REASSESS THEIR GOALS?

FB: After a few years and a degree of success, it is easy to do more of the same. At some point, you need to think about the terms of your intervention, both how you are affecting communities and how you are leveraging the money you are using. Community needs evolve and the most effective ways of delivering these needs also change.

Because of our philanthropic approach of building and running our own programmes, we live by a mantra of learning-by-operating and more often than not, reassessments follow.



Photo credit: Pharo Foundation

IH: BEING SELF-RELIANT IS ALSO HUGEY IMPORTANT TO THE FOUNDATION. WHY DOES THIS MATTER IN PHILANTHROPY?

FB: Self-reliance is central to what we are trying to do. As a self-funded foundation, we can implement our vision without the need to fit into an external funder's objectives. But more importantly, self-reliance is what we want for Africa itself and Pharo Ventures was created in that spirit in 2019.

This is the for-profit arm of the foundation, which was set up with the objective of building commercially sustainable businesses that can create jobs and add value to the economy.

Ventures are the future of Pharo Foundation because they can help provide the building blocks of a self-reliant African private sector, which will survive the foundation. To some extent, we will know that our job is done when there is no more external intervention but just a home-grown process of development. Ultimately, that is a philanthropist's dream.

IH: AND HOW DO YOU SEE THE FOUNDATION'S WORK PROGRESSING?

FB: We are embarking on more advocacy and policy-driven work in order to scale up our successful approaches at a national level. We are now starting to frame the issues and create coalitions for change on that national level.

The next five years will be about creating the partnerships that will allow us to scale up our impact from project to national level, moving us closer to our mission goals. In 10 years and beyond, I'd like to see the foundation starting to become a key player in global policy-making, where we will be setting the terms of what constitutes valuable goals for other organisations across our missions.

IH: FINALLY, MAY I ASK WHAT GIVES YOU THE MOST JOY IN YOUR ROLE?

FB: The greatest satisfaction comes from collaboration with our local teams and communities. It is the meeting of worldviews that is interesting because that is the nature of development work.

For me, empowerment is the greatest measure of our success and I love to witness the results of this. For example, when I see projects such as Pharo Ventures' upcoming sesame oil factory, which has been a labour of love, it makes me feel like we are on the right path towards African self-reliance.

Sub-Saharan Africa accounts for close to **30%** of all out-of-school children globally<sup>1</sup>.

**1.34 billion** Africans face water scarcity, which accounts for more than 90% of the continent's population<sup>4</sup>.

In 2021 **9 out of 10** children in sub-Saharan Africa could not read or understand a simple text by the age of 10<sup>2</sup>.

Roughly **two-thirds** of Africa is categorised as arid or semi-arid, despite the continent possessing close to 9% of global freshwater resources<sup>4</sup>.

Africa needs at least **9 million** new classrooms and **9.5 million** additional teachers by 2050<sup>3</sup>.

Within a decade, **1 in 3** entrants to the global workforce will be from Africa. Over the next 30 years, the majority of the world's new workers may well be on the continent<sup>5</sup>.

<sup>1</sup> UNESCO, '250 million children out-of-school: What you need to know about UNESCO's latest education data', 19 September 2023

<sup>2</sup> UNICEF, 'UNICEF joins forces with African Union to prioritize education in 2024', 26 February 2024

<sup>3</sup> World Economic Forum, 'Why the world should look to African for education innovation', 25 January 2024

<sup>4</sup> Greenpeace, 'Water woes: 13 undeniable facts about Africa's water scarcity', 22 March 2024

<sup>5</sup> World Economic Forum, 'Why the world should look to African for education innovation', 25 January 2024



# The future of real estate in Monaco

Discover how Mareterra, a pioneering in-demand development built in the Mediterranean, is set to transform the principality's property market.

**Please note: The external views expressed in this article are not the views of Barclays Private Bank, and forecasts are not a reliable indicator of future performance. Professional advice should always be sought when selling or buying property.**

A shimmering new neighbourhood that is breaking new ground in more ways than one, has emerged on Monaco's waterfront.

Mareterra, which opens to residents later this year, is a transformational development for the principality. This pioneering land reclamation project covers 14 acres<sup>1</sup> and increases the size of the second-smallest independent state<sup>2</sup> – only Vatican City is smaller – by 3%<sup>3</sup>. It also boasts the world's most expensive real estate and is setting a new standard, as well as creating much-needed homes, for this unique housing market.

## A NEW NEIGHBOURHOOD FOR MONACO

For more than 150 years, Monaco has been squeezing densely packed buildings into its area of just over two square kilometres, half the size of New York's Central Park and constrained between mountains and the Mediterranean. Reclaiming land from the sea is not new – from the 1950s onwards, 20% of the principality's surface area was reclaimed in this way<sup>4</sup> – but Mareterra is unique in its ambition and scope.

Recognising the urgent need for more space, in May 2013, Prince Albert II's government launched a call for applications for the construction of a new district through an urbanisation project in the sea. Initially called L'Anse du Portier, or Portier Cove, it is now known as Mareterra. The name, picked by the prince, is inspired by the two complementary elements of the project: the sea and the land.

At a cost of €2 billion, funded by private investors, this is Europe's largest and most expensive real estate project, in large part due to the complex logistical and engineering challenge of building into the sea. Construction began in 2018, with materials delivered by boat to minimise impact on residents, while a team of marine biologists monitored the impact of the works on marine life.

Sustainability is at the core of Mareterra, Monaco's first eco-district, where 800 trees are being planted and 600 metres of cycle path created. There are also 9,000 square metres of solar panels and huge heat pumps will use the sea water temperature to generate heat in winter and cooling in summer<sup>5</sup>.

## CAREFULLY SELECTED BUYERS

Master-planned by the French architecture firm Valode & Pistre, the development comprises a collection of buildings with 110 apartments and 10 villas, six of which will be waterside<sup>6</sup>. The most eye-catching addition, at the westernmost end, is Le Renzo, a block of luxurious residences designed by the architect Renzo Piano. There are also public spaces, including a waterside promenade, a retail plaza and a small marina.

The properties have been sold to a carefully selected group of buyers, says Irene Luke, Co-head of Savills Monaco. "There's a mix of nationalities, including French, Swiss, German, Italian and Bulgarian, as well as British," she explains. "We are going to be seeing values of €100,000 a square metre and above on resales."

Edward de Mallet Morgan, Head of International Super-Prime Sales at Knight Frank, says Mareterra is the most expensive real estate development project in the world. "It was almost all sold out off-plan two years before completion. Our prediction is that it will continue to set records for Monaco and, indeed, globally."

<sup>1</sup> Robb Report, 'Exclusive: Monaco Created a Ritz, Multibillion-Dollar Neighborhood From Scratch – Here's a Look Inside', 6 August 2023

<sup>2</sup> The Embassy of Monaco in Washington DC website, 'Key Facts', 24 June 2024

<sup>3</sup> Monaco Tribune, 'Mareterra to be completed in 2024', 22 November 2023

<sup>4</sup> Mareterra, 'The Organisation of the Mareterra Project', May 2021

<sup>5</sup> Mareterra website, 'Facts and Figures', 14 June 2024

<sup>6</sup> Savills website, 'Mareterra Monaco', 14 June 2024



## A PLAYGROUND FOR THE GLOBAL ELITE

For decades, the super-rich have clamoured to live in Monaco. The fewer than 40,000 residents include billionaires, the global elite and the famous, from people in the film and music industries to sportspeople. You need net wealth of at least US\$12.9 million to join the top 1% here, according to Knight Frank, the highest threshold in the world<sup>7</sup>.

“The traditional face of Monaco is changing – we’re increasingly seeing a younger clientele set up their family homes here given all the principality has to offer...”

There are no levies on income, capital gains or property and the low-tax environment is, of course, incredibly attractive to the wealthy, but that’s not the only thing

drawing them. “The traditional face of Monaco is changing – we’re increasingly seeing a younger clientele set up their family homes here given all the principality has to offer – from near-year-round sunshine to international schooling, as well as two ports for superyachts, internationally renowned restaurants and unrivalled shopping and safety, it’s not surprising that there is such demand to purchase a home here,” says Gerald Mathieu, Head of Private Bank Europe and Middle East, and CEO Monaco, at Barclays.

The clamour to live here has nevertheless been met with a chronic undersupply of property. Mareterra brings important new homes to the Larvotto seaside district, while this year will also see another large project complete in this area. Bay House features 56 apartments and five villas, as well as the new home of the International School.

Amid macro-economic uncertainty, Monaco has remained resilient and retains its crown as the most expensive residential property market in the world, according to Savills. Although sales are down – there were 416 individual transactions across the principality last year, a decline of around a fifth compared to 2022 – prices per square metre increased by 0.9% in 2023. This leaves values at an average of €51,418 per square metre, less than 1% below the record seen in 2021 and comfortably ahead of Hong Kong, at €39,100 a square metre, New York (€25,300) and London (€18,900)<sup>8</sup>.

## CHANGING NEEDS AND PREFERENCES

Given its tiny size, most of the housing stock in Monaco is apartments. While Larvotto is the most expensive district by square metre, with prices rising to more than €65,000, only an average of four properties have sold each year since 2010 so this heavily skews the data, Savills says<sup>9</sup>.

According to Stephen Moroukian, Real Estate Financing Director at Barclays Private Bank, the race for space that began during the pandemic is still being felt. And it’s becoming more acute because of a change in approach to residence card applications in recent years.

“The property size must now match with the size of the family applying for residence and this has led to higher demand for larger homes,” he explains. “Given the long-standing global demand for Monaco’s real estate, this extra buyer criteria adds a nuanced dynamic to an already competitive market.”

According to Ianis Ennaji, a Senior Private Banker at Barclays Private Bank Monaco, the principality remains a property hotspot like no other. “Monaco is attracting an increasing number of ultra-high-net-worth individuals every year and so the demand for large, high-quality family homes has been on the rise,” he reflects.

“Against this backdrop, Mareterra ticks a number of boxes for house hunters – high spec, sea views, concierge and leisure facilities, to name just a few of the credentials. The overall quality and luxury on offer is noticeable.”

## A SAFE HAVEN

While there is caution on inflation, interest rates and global politics – this is, after all, the biggest election year in human history – Monaco real estate looks set to retain its perceived safe-haven status. Knight Frank has forecast the number of ultra-high-net-worth individuals there worth more than US\$30 million will rise by 23% between 2021 and 2026<sup>10</sup>.

“Demand for high-end property across the Côte d’Azur shows little sign of abating. While other places are often impacted by interest rates and inflation, we see a buoyant market prevailing here,” concludes Gerald Mathieu. “With the promise of luxury, exclusivity and quality lifestyle combined, it’s not hard to understand why the Riviera, Monaco and now the Mareterra, are in such high demand.”

<sup>7</sup> Knight Frank, 'The Next Edition, The Wealth Report, 18th Edition', 2024  
<sup>8</sup> Savills, 'Spotlight: Monaco – 2024', 18 March 2024  
<sup>9</sup> Savills, 'Spotlight: Monaco – 2024', 18 March 2024  
<sup>10</sup> Knight Frank, 'Monaco in pole position as a new era of higher taxes beckons', 27 May 2022



# The next generation of conservation



Photo credit: Lauren Gupta and Becky Holmes

Sisters Lauren Gupta and Becky Holmes of The Helvellyn Foundation discuss wildlife conservation and the insights they bring as young philanthropists.

**Please note: This article is designed to be thought leadership content, to offer big picture views and analysis of interesting issues and trends that matter to our clients and the world in which we live. It is not designed to be taken as expert advice, investment advice or a recommendation, and any reference to specific companies is therefore not an opinion as to their present or future value or broader ESG credentials. Reliance upon any of the information in this article is at the sole discretion of the reader. Some of the views and issues discussed in this article may derive from third-party research or data which is relied upon by Barclays Private Bank and may not have been validated. Such research and data are made available as additional information for the reader where appropriate.**

Two next-gen philanthropists share their unique insights on grant-making and family collaboration, as they juggle fulltime careers with being donors. Here, they explain why transparency and trust lie at the heart of their shared giving journey.

Sisters Lauren Gupta and Becky Holmes have loved being in nature for as long as they can remember.

Every summer as children they played with their cousins in their grandmother's garden in the Lake District where they created an elaborate imaginary world teeming with giraffes, rhinos and elephants.

"It was really just a field full of sticks, but we'd go outside after breakfast and pretend we were feeding the animals in our nature reserve until our mum called us in for tea," Lauren remembers. "We played that game until we were far too old."

Other holidays were spent amid nature by the sea in North Berwick on the east coast of Scotland.

But even as children, the sisters recognised the potential threats encroaching on the natural world. "Not long ago I found a picture that I'd drawn of my grandmother's garden when I was about seven or eight," says Becky, who now works in conservation.

"Underneath, in my childish scrawl, I'd written about poaching and the dangers animals face. I'm not even sure how I knew what poaching was at that age."

## RESPECTING THE BEAUTY OF NATURE

More than 20 years later, this fantasy safari landscape has inspired the very real Helvellyn Foundation of which Becky and Lauren are trustees. Set up with their entrepreneur father Bill in 2020, the foundation is an independent grant-making organisation with a 'vision to live in a world where nature is thriving and everyone cares for it'.

"I think some people take nature for granted and don't value it on a day-to-day basis, but it is beautiful and should be respected," says Lauren, who works for a social enterprise charity bringing young people and businesses together.

To help raise awareness of the beauty and value of nature, Helvellyn focuses on seven core areas: advocacy and policy change, business and the natural world, awareness and behaviour change, frontline community engagement, species at risk, landscape level conservation and data collection and analysis.

Underpinning the foundation's values is a profound awareness that it is often those in developing countries who suffer most through climate change<sup>1</sup> and biodiversity loss.

This can be particularly confronting in the typically white-centric<sup>2</sup> conservation movement.

In fact, this understanding of the need for greater diversity in philanthropy, as well as an appreciation of their privilege as inheritors, has been a key factor in how the sisters engage with their charity partners.

<sup>1</sup> UK Parliament Hansard, 'Climate Change: Impact on Developing Nations', 11 January 2024

<sup>2</sup> The Guardian, 'Environment charities lag behind other UK sectors in racial diversity, study finds', 7 February 2024



## TWO-WAY PARTNERSHIPS

Operating through what they describe as 'relationship-based' philanthropy, Becky and Lauren are keen to build open dialogues with the organisations they fund.

"We don't want to have a barrier between us as the funders and the charities as the beneficiaries. One of the main things we do is to ask the charities what they need from us," says Becky. As well as donating money, this support could involve writing references, hosting webinars or helping partners to apply for other sources of funding.

Transparency, the sisters believe, is key when collaborating with charities. At the start of any potential relationship, the foundation reaches out with a clear offer of the amount it can provide as a grant, as well as outlining the non-financial support available.

Helvellyn also publishes all its grants on its website and will keep partners updated if it makes any changes to its approach.

## EMPOWERING THE EXPERTS

Unrestricted funding is also important. When making a grant, the foundation doesn't believe in telling their partners what to do with that money. They let their beneficiaries – whom they view as the real experts – determine how to do most good with those funds.

Also key to Helvellyn's philosophy is the idea that charities shouldn't be consumed with overly onerous bureaucracy, which (if removed) can free up time to focus on the conservation work they were designed to do.

Rather than having lengthy application processes, Helvellyn's website has a 'tell us about you' form, which takes just a couple of minutes to complete. The sisters will also discover organisations that could be a good fit as partners through their own research and networks.

## A DIFFERENT APPROACH TO PHILANTHROPY

At this stage, the foundation will also carry out its own due diligence by reviewing a potential partner's most recent reporting and the leadership experience of key individuals.

If an organisation passes this due diligence, the foundation sets up an introductory call, usually lasting around 45 minutes.

Rather than requiring charities to complete time-consuming annual reports, the sisters hold quick catch-up calls with their partners.

This isn't how philanthropy has traditionally been done.

## A FAMILY TREE

As the junior members of a family foundation, Lauren and Becky unsurprisingly receive a great deal of attention as next-generation philanthropists. And their age certainly brings different perspectives. "We have a real sense of urgency that something needs to be done," says Lauren.

"The other point about being next-gen is that we're the ones who are going to have to live with the consequences of climate change and biodiversity loss. It's just a numbers game."

But the narrative is more nuanced than the next generation educating their out-of-touch predecessors. "More than 50% of the people we turn to for advice with our philanthropy are from our parents' generation, and they care immensely about these issues – at least as much as we do."

One of those people the sisters turn to is their father, Bill. As well as being a trustee of the foundation, he is an enthusiastic nature lover and has walked trails such as Kilimanjaro, Toubkal and Kinabalu.

Indeed, it was his childhood retreats to the Lake District with his botany-loving mother that inspired the name 'Helvellyn' in reverence to one of the region's highest peaks.

## THE ENTREPRENEURIAL SPIRIT

Having founded a global business services company more than 30 years ago, Bill's experience is invaluable when it comes to business mentoring – another type of support that Helvellyn offers its beneficiaries.

The sisters recall working with a partner in crisis who asked if he could speak to their father following the departure of a key member of staff. "Dad gave very frank, straightforward advice and the partner made significant changes to how he ran the organisation," says Lauren.

"Because dad has that cut-throat business sense, he doesn't sugarcoat anything. At the time, the partner said it was the hardest thing he'd ever had to hear but has since gone back to dad and thanked him."

Running a three-person foundation can bring complicated dynamics. "Becky and I are really lucky because we're so aligned in our views," says Lauren. "If I'm having a conversation, I know that I pretty much speak for both of us, which isn't the case in a lot of families."

## A DIVERSE MIX OF SKILLS

Nevertheless, the sisters bring different attributes to their philanthropy. Throughout her career – first as an educator and then gaining an MBA from Esade Business School – Lauren has specialised in data and impact, strategy and ethics. With a BA in Graphic & Communication Design, Becky has created Helvellyn's website.

As the Head of Conservation at Langland Conservation, Becky's current role involves providing intelligence support to prevent poaching and the illegal wildlife trade in countries such as Africa.

"This allows me to understand more about the issues that our potential grantees are facing and also identify areas of conservation that potentially need funding but may be underrepresented," she says.

## 'ANY MONEY GOING TO CHARITY IS A GOOD THING'

As their father has a flair for numbers, he brings a different approach to the foundation. To accommodate his business-driven mindset, the sisters make sure that they get the numbers right whenever they approach their father about a major decision on the foundation's future.

"It's taken us a while to get there, but I think it works," says Becky. "There was a time a few years ago when we'd perhaps become overly passionate about these causes, and that's not necessarily a bad thing, but conversations with dad have helped us take a more balanced view."

Ultimately, the sisters are grateful that their father has given them his backing to pursue their passion for conservation. "We recognise that it's his money he has invested. Whatever decisions we make as a foundation, any money going to charity is a good thing."

## HELPING TO RETAIN PEOPLE'S LIVELIHOODS

For Lauren and Becky, one of their most joyful experiences in philanthropy came from their work with The Amphibian and Reptile Conservation Trust, which had previously had to reduce staff due to temporary shortfalls in funding.

Through an unrestricted grant from The Helvellyn Foundation, the charity was able to retain five of its existing employees while it waited for other planned grants to come in.

"These are people's livelihoods," says Lauren. "But a gap in funding of just one month can mean that a person might have to leave their job and the charity may need to recruit again shortly after. Being able to help prevent that is really impactful."

Describing themselves as 'wealth holders in waiting', the sisters feel immense responsibility to be good stewards of that wealth, but that doesn't mean increasing their personal fortunes any further. "Once you've figured out how much you need for the rest of your life, you don't necessarily have to grow your wealth," says Lauren.

Characteristically, her sister agrees. "Being able to give money to charity is an enormous privilege," says Becky. "The majority of people can't sit back and consider how they're going to help the world, but we're very lucky to have all our basic needs met."

## 'IF YOU CARE, JUST DO IT'

If the sisters had one piece of advice for those wishing to get involved in philanthropy, it would be that giving doesn't need to take up all of your time, pointing out that both the sisters and their father maintain full-time careers outside of Helvellyn.

As Lauren says: "To start giving isn't a difficult thing. You don't have to have a foundation to give money to charity. If you care, just do it."

"Dad always told us that he doesn't want what he did with his life to affect what we do with ours. We're not doing any of this because we have to. We're doing it because we want to."





# Wallet vs. wall: A collector's guide to digital art



Advances in technology have spawned a new medium of art, but can digital works sit harmoniously in a collection alongside more traditional forms?

From Impressionism to Dada to the Young British Artists, art movements have historically courted controversy by uprooting our preconceptions of what art can be. Like these radical predecessors, digital art represents a movement that strikes at the heart of contemporary culture and is becoming a driving force in today's art world.

Harnessing the latest technology, digital art is a dynamic medium that reacts and adapts to changing social, cultural and technological contexts. While remaining relatively niche, the medium is starting to command increasing sums on the primary and secondary markets. So, is it a form that more art collectors should consider?

Rather than creating physical paintings hanging on a wall, digital artists are opening new doors of expression, creating virtual works that can be stored within a digital wallet as one-of-a-kind assets such as non-fungible tokens (NFTs).

## NEW PERSPECTIVES ON A FAMILIAR WORLD

Data-driven art may not sound particularly creative, but a quick exploration of the artists at the forefront of this movement – such as Refik Anadol and Tin&Ed – shows that such initial scepticism is seriously misplaced.

Anadol transforms data into mesmerising and rhythmic visual experiences, such as the trance-like 'Machine Hallucinations – Sphere', currently on show in Las Vegas<sup>1</sup>. His body of work offers its audience new perspectives on a familiar world, allowing opportunities to meditate on our increasingly intertwined relationship with everyday technology and newer elements of artificial intelligence (AI)<sup>2</sup>. Meanwhile, Australian duo Tin&Ed create playful and immersive installations that blur the boundary between the physical and digital worlds, and challenge the role of technology in the domestic world<sup>3</sup>.

Their recent work, 'Kaleidoscopic Home', comes in the form of a downloadable app that transforms its users' surroundings into what the pair describe as 'an extraordinary playground filled with an ever-changing

array of surprising sculptural forms'<sup>4</sup>. By manipulating normality, they invite us to experience the world with a renewed sense of wonder.

## PART OF THE ZEITGEIST

What makes AI particularly exciting is that the more artists use this technology, the more these programs will learn and evolve. In this way, digital art is becoming part of the zeitgeist, and its output will become a lucrative realm for art connoisseurs worldwide. But as its prevalence increases, so does the need for collectors to understand the nuances and potential of digital art.

The world began to take notice of the burgeoning digital art market in 2021 when Beeple's work 'Everydays: The First 5000 Days' sold at Christie's for almost \$70 million<sup>5</sup>. The sector has continued to spiral. Valued at \$4 billion in 2023, the digital art market is expected to reach \$12.1 billion by 2030<sup>6</sup>.

As an investment, art has traditionally come with a long set of risks. Not only can it be tricky to authenticate, the transportation process and storage of wall-based art and sculpture can also be complex and expensive. Moreover, art is not a particularly liquid investment – in other words, it is often not easy to buy and sell quickly.

## SECURE, PORTABLE AND INSTANTANEOUS TO TRADE

Digital art mitigates many of these risks. As it can be stored securely in the cloud, on a hard drive or memory stick, these pieces are secure, portable and instantaneous to trade. Likewise, digital provenance tracking marks a serious change when compared to traditional mediums.

Using blockchain technology, the authenticity, provenance and exhibition record of every work can be securely stored, updated and shared<sup>7</sup>. This makes the selling process a far cry from the difficulties surrounding high-profile works, such as the much-disputed 'Salvator Mundi', whose attribution to Leonardo Da Vinci remains a matter of debate.

<sup>1</sup> Refik Anadol Studio website, 'Machine Hallucinations – Sphere', 20 May 2024

<sup>2</sup> Refik Anadol Studio website, 'Biography', 20 May 2024

<sup>3</sup> Tin&Ed website, 'About', 20 May 2024

<sup>4</sup> Tin&Ed website, 'Kaleidoscopic Home AR', 20 May 2024

<sup>5</sup> Christie's, 'Beeple's opus', 30 May 2024

<sup>6</sup> Coherent Market Insights, 'Digital Artwork Market Size and Share Analysis', 30 May 2024

<sup>7</sup> My Art Broker, 'Art Authentication: Human Expertise vs Emerging Tech', 30 May 2024



That's not to say digital art is without risk. As a new art form, valuations are more speculative and subject to fluctuation – the NFT market being the most obvious example. However, despite a significant slowdown from its initial boom in 2021, the NFT market still has its merits. Digital goods investor and influencer Mark Cuban, comments that the market is “a lot more deliberate and collector driven [...] people are less focused on immediate appreciation and more on enjoying the art itself”<sup>8</sup>.

### CURATE, DISPLAY AND SHARE

In recognition of its cultural significance, many museums and institutions are now actively collecting digital art, and these exhibits successfully showcase how digital art can be integrated into pre-existing collections. But for all its positives, digital art still causes confusion among collectors, particularly over how it can be curated and displayed. Unlike traditional art, digital art often doesn't come in the form of a physical object and leans instead towards the immersive and experiential.

Work by Danish digital artist Jakob Kudsk Steensen is currently on show at London's Serpentine Gallery. Steensen's 'The Deep Listener' takes its audience on an audio-visual expedition through Kensington Gardens and Hyde Park, complementing (and enhancing) the audience's knowledge of the physical reality of these well-known areas<sup>9</sup>.

As a virtual art form, digital art has also found a natural home within the metaverse. The mainstream adoption of the metaverse<sup>10</sup> by prestigious auction houses Christie's<sup>11</sup> and Sotheby's underscores its growing influence. And virtual art galleries and exhibitions are becoming increasingly commercial. The sale of high-profile digital assets, such as Krista Kim's 'Mars House', which sold at Sotheby's in 2020 for over half a million pounds, is an indication of the metaverse's growing prominence within the art world.

### DIGITAL ART AND PHILANTHROPY

Art-loving philanthropists have also taken the opportunity to support the creation of digital art. Berlin-based computer scientist and collector Ivo Wessel founded Videoart at Midnight in 2008, an artists' cinema project based in Berlin that focuses on promoting early-career digital artists<sup>12</sup>.

Wessel sits alongside a growing number of high-net-worth individuals tying philanthropy into their collecting practice. Californian couple Pamela and Richard Kramlich have been collecting media art for over 35 years, and now own one of the most important collections worldwide.

The couple founded a trust in 1997 to focus on the conservation of digital media. They also run an educational programme and donate works to public collections around the world.

### ROBUST STORAGE SOLUTIONS

Collecting digital art is not just about acquiring new and increasingly commercial pieces; it is about participating in a vibrant and evolving movement. From the immersive qualities of augmented reality to AI's algorithmic creativity, and the expansive possibilities of the metaverse, digital art offers a wealth of opportunities for collectors. And for those willing to explore it, the rewards can be plentiful (albeit not without risk).

But building a digital art collection involves more than just acquiring and displaying it. Preserving digital art requires careful consideration of storage solutions and technological adaptability to ensure artworks stay intact and accessible.

Collectors should ensure their digital artworks' ongoing accessibility by using storage solutions such as open file formats that can adapt to rapidly changing technologies. Forgot to back something up? We've all experienced that stomach-dropping feeling, though perhaps not when it's a multimillion-pound digital artwork. These pieces should be stored in multiple locations to prevent loss due to hardware failure. A robust backup system includes regular backups, and off-site or cloud storage<sup>13</sup>. To support collectors, metadata management can easily be outsourced and is provided by an increasing number of reliable companies<sup>14</sup>.

### THE FOREFRONT OF DIGITAL INNOVATION

By embracing the switch from wall to wallet, collectors can become engaged with the forefront of artistic innovation. They can also enrich their collections with works that reflect the pulse of modern society and have the potential to increase in cultural and commercial value.

For art connoisseurs, the choice doesn't have to be binary, digital art merely adds to the pantheon of artistic works to be explored, enjoyed and collected. But its growing presence, proliferation and importance show it certainly shouldn't be disregarded.

<sup>8</sup> The Art Newspaper, 'How 'more mature' collectors are powering the NFT's market's comeback', 30 May 2024

<sup>9</sup> Serpentine Gallery, 'Jakob Kudsk Steensen: The Deep Listener', 30 May 2024

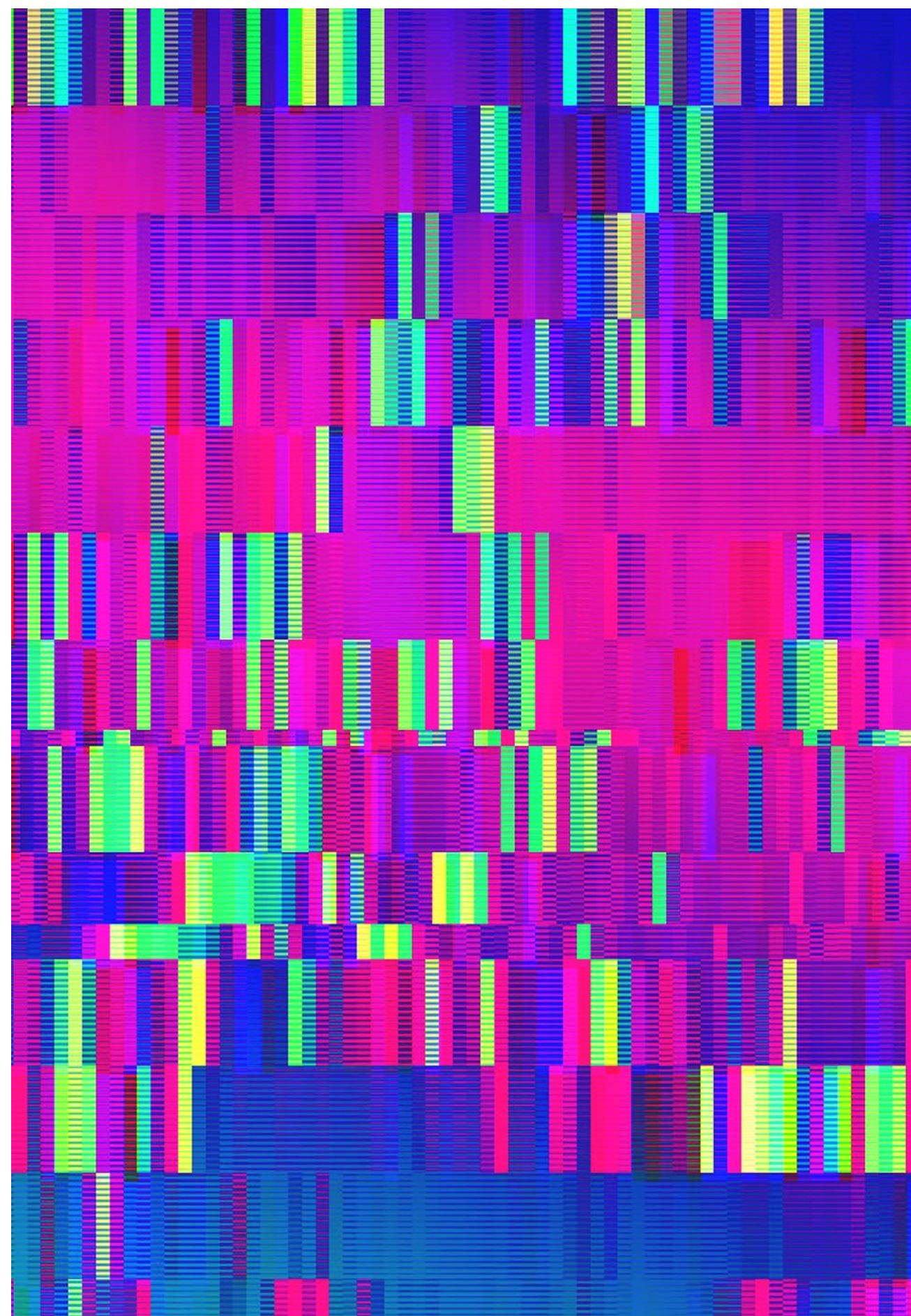
<sup>10</sup> Sotheby's website, 'Grails On-Chain: Property from an Iconic Digital Art Collection', 20 May 2024

<sup>11</sup> Christie's website, 'Christie's 3.0', 20 May 2024

<sup>12</sup> Videoart At Midnight, 'About', 30 May 2024

<sup>13</sup> Wayback Machine, 'Art in the Age of Obsolescence', 20 May 2024

<sup>14</sup> IBM website, 'What is Digital Asset Management?', 20 May 2024





# The story of Dr Vijay Patel OBE



The entrepreneur discusses his humble beginnings in Kenya, his journey building a multinational health conglomerate and his passion for giving back.

Dr Vijay Patel OBE is one of the UK's most successful entrepreneurs. In this special feature, we share his inspirational life story, as told to us during an exclusive video interview filmed in the spring of 2024.

At the age of five, Vijay lost his father while the family was still in Kenya. To make ends meet, his widowed mother set up a little nursery in the family home to support herself and her three children. "We had food and two sets of clothes, one on and one off – and that's how we grew up," he recalls. "Our mother was very keen for us to study hard and do well. She believed that education was the only way out of our situation."

From an early age, Vijay's work ethic was clear and in the 1960s, he moved to the UK from Kenya. While studying for his A-levels, he juggled various part-time jobs, from cleaning to pot washing, and factory labourer to waiter – a far cry from his lifestyle today. Having achieved strong grades at school, he went on to study Pharmacy at De Montford University.

His university education laid the path for his eventual career, which saw him go on to build a healthcare conglomerate with his brother Bhiku. The wide-ranging business covers pharmacy and pharmaceuticals, as well as real estate, private equity and venture capital. Thanks to its outstanding commercial success, Vijay joined the ranks of Britain's wealthiest people. But he never forgets his roots.

"When you've experienced a period of deprivation, the biggest motivation is to distance yourself from it," he explains.



## BUILDING A CONGLOMERATE FROM SCRATCH

For Vijay, the spark to achieve big things was lit early when he first noticed that the finest homes and best cars belonged to businesspeople.

Determined to reach the same heights, he knew his ambition set him apart. "I don't know how many children think like that," he recalls. "But I did because we were living in a tiny room. I saw how wealthy people lived."

That drive to succeed set him in good stead, and it was in 1975 that his business journey began, with the opening of his first pharmacy in Leigh-on-Sea, Essex. At the time, he lived above it in a small flat. "I thought I'd have a couple of pharmacies and make a nice living," he remembers. But the business grew beyond his wildest expectations.

From these humble beginnings, he started buying and improving other pharmacies in the area, often spending Sundays refitting and renovating, which allowed him to remain open six days a week. The hard graft was twinned with a laser focus, and specially, the firm belief that a strong reputation for customer service was as important as profit. "Your customer is your income. If you have a happy customer, you have a happy business. I built those businesses purely on service."

That mantra clearly worked because within five years, Vijay was running 10 pharmacies. In 1984, the brothers founded Waymade Healthcare, a pharmaceutical business in Basildon, Essex. They grew the business rapidly.

Vijay struck deals with big pharmaceutical companies and built a pharmaceutical sales and distribution business. He founded Amdipharm, as a subsidiary of Waymade, in 2003, to acquire branded pharmaceutical assets worldwide. Despite his success, Vijay remembers not feeling secure about his wealth until 2013, when private equity firm Cinven bought a majority stake in Amdipharm.

The following year, still hungry for more accomplishments, he set up Atnahs Pharma, now Pharmanovia, which trades in 160 markets and holds a portfolio of drugs in various fields, including neurology, endocrinology and oncology.

## A STRONG MATERNAL INFLUENCE

Reflecting on his journey, Vijay credits his late mother as his greatest inspiration.

She believed education was the only way out of poverty and instilled this belief in her children. Despite their circumstances, she taught them the importance of giving by donating 10% of their small income to charity.

This desire to help others continues today, as Vijay and his brother focus much of their energy on philanthropy. "I don't think about wealth anymore but rather how much good we can do for others. That's because of how we were brought up by mum, although what we're doing is only a drop in the ocean as there is so much need. However, as my mum said: 'Many drops fill a pond. When everybody gives a little, it goes much further.'"

## LESSONS IN BUSINESS

Vijay has completed countless acquisitions, from single pharmacies to entire drug portfolios. "When I buy a business, I know that in that business is a gem, a nugget," he explains.

Despite an insatiable appetite for success, he emphasises the importance of not wasting time. "Once the decision (to buy) is made, do not procrastinate. The guys who won't succeed are the ones who say, 'what happens if it rains tomorrow?' Invariably, it will rain, but we are going to do this and work hard at it, rain or no rain," he says.

For many years, Vijay didn't recognise himself as an 'entrepreneur'—he was just doing what needed to be done. Today, through Waymade Capital, his family office, he assesses pitches from entrepreneurs seeking funding and can quickly tell if they have sparkle in their eye and hunger in their belly. "Entrepreneurs are optimists, visionaries, quick decision-makers and adept at discerning the best potential outcome for opportunities," he says.

He advises that making mistakes is part of the process. "A mistake is tolerable as long as it is not overly imprudent."

## FAMILY MATTERS

At the heart of Vijay's business is a strong family dynamic and a range of complementary skills. His brother Bhikhu, an architect by training, joined the business in its early years. "He sees things in 3D, he sees a problem before it may happen and navigates to a solution, if and when, it happens," Vijay explains.

Today, their children run large parts of the family business. Vijay's children attended local grammar schools to ensure they were 'grounded' before heading to university and business school. His pride in his children is clear: "Both my sons have been to prestigious business schools to earn their MBAs and are far more polished than I ever was."

Despite the younger generations coming through, Vijay remains the Co-Chairman of the Waymade Group, alongside his brother. "My son mentioned that, while we have a successful business, we are poised to expand it significantly. It was wonderful to hear! My sons are entrepreneurial, they possess the inherent talent and ambition to achieve success in their own right," he says.

The family recently spent two years working on a company constitution, encompassing their vision and values, and including environmental, social and governance responsibilities. The Patel family business now spans 149 countries, with headquarters in Basildon. "We love Basildon and Essex," Vijay reflects. "It's where we started, we owe it to them."

As for the legacy he hopes to leave, Vijay channels his mother's teachings by saying, "I would like people to think, 'He was a kind guy who worked diligently and instilled in others the importance of generosity and giving.'"





# Designing the supercars of tomorrow



Tobias Sühlmann, Chief Design Officer of McLaren Automotive, explains how his often-secretive work is creating some of the world's most sought-after cars.

Tobias Sühlmann has an eye to the future. As the Chief Design Officer of McLaren Automotive, his job is to create unique supercars, initially under a veil of secrecy, that will ultimately be on collector wish lists long into the future.

Self-confessed car enthusiast Rahim Daya, who is also our Private Bank CEO of Switzerland and Head of Middle East, spoke to Tobias about the firm's insatiable appetite for innovation.

**RAHIM DAYA (RD): BEING CHIEF DESIGN OFFICER FOR A SUPERCAR BRAND SUCH AS MCLAREN AUTOMOTIVE IS A DREAM JOB FOR MANY PEOPLE. HOW DOES IT FEEL?**

**TOBIAS SÜHLMANN (TS):** It's definitely a dream job. I've worked with several other supercar brands over my 20 year career, but my highlights in the industry have been with McLaren.

When the team and I sit down to create a new supercar or hypercar, I feel like we're helping to shape the future. We're not just creating modes of transport but works of art and objects of desire.

**RD: I LOVE THE PHRASE 'WORKS OF ART'. WHAT WERE YOUR MAIN PRIORITIES WHEN YOU STARTED THE JOB IN SEPTEMBER 2023?**

**TS:** The first thing I did was to sit down with my team to work on the design DNA signature. With any car, there are three key elements: the front, the side and the rear. You need to define a design signature that separates different models from each other, but you also want them to feel as though they are part of the same product family.

As the average car has a gestation period of between five and six years from conception to being driven by customers, looking ahead is also important. If I asked you to design a car that you wanted to drive today, you could probably do a reasonable job. But what if I asked you to design the car that you'd want in six years' time?

**RD: A FASCINATING POINT. CAN YOU TELL US A LITTLE MORE ABOUT THE JOURNEY INVOLVED IN DESIGNING A NEW CAR?**

**TS:** Every new car begins with a sketch, which we then refine through design editing software, before creating models in clay and virtual reality. Getting input from our racing partners is also a key part of the process. McLaren was born in racing so it's important to learn from their expertise and see what we can apply to our own car designs. I still find it really exciting to visit the wind tunnel, which is based in our headquarters in Surrey.





**RD: SOMETHING ELSE I'D LIKE TO KNOW MORE ABOUT IS HOW YOU MANAGE TO KEEP YOUR DESIGNS A SECRET. EVERY INDUSTRY HAS LEAKS...**

**TS:** Before we introduce a new limited production model to the wider public, we have a closed viewing with select customers. This usually means that all of the production run is sold before any public information is released. Obviously, this requires a great deal of trust.

Even internally, we have very strict security controls over who can enter the design studio when we're working on a new model.

**RD: HOW DO YOU USE VIRTUAL REALITY IN CAR DESIGN AND WHAT ARE THE BENEFITS?**

**TS:** Working in virtual reality gives you more creative freedom because you can have as many virtual models as you like, which you can't do with physical models.

The technology can also be really useful when you're looking to get senior management approval of a design. We all walk around the car in virtual reality with our glasses on and it can really bring an idea to life.

Seeing the design in this way also saves a lot of time because we can make quicker decisions. If something needs to change in terms of aerodynamics, we can see it in real-time. I can then go back to the clay model and make any changes I need. This way, virtual reality and the real world can work hand-in-hand.

**RD: CARBON FIBRE IS KEY TO THE DESIGN OF MCLAREN AUTOMOTIVE'S SUPERCARS. WHAT'S THE HISTORY BEHIND THIS?**

**TS:** We were the first Formula One team to introduce a carbon chassis into our cars in 1981<sup>1</sup>. Shortly after, other teams did the same thing<sup>2</sup>. In terms of market leadership and innovation, we are the only supercar manufacturer producing models entirely made of carbon fibre.

A couple of years ago, we invested in our Composites Technology Centre in Sheffield and that is where we produce our carbon fibre tubs, which form the main structure of our cars.

**RD: AND WHAT ARE THE BENEFITS OF USING CARBON FIBRE IN CAR DESIGN?**

**TS:** We're always looking for lightweight performance. It's really important to get the right ratio of horsepower to weight, which can create greater energy efficiencies.

When I'm working on a design, I speak to the racing team and ask them about the thinnest carbon fibre they use in their designs. If it is thinner than ours, I consider whether we can apply it to our streetcars. Our supercars are made for the road and not racetracks, but we can still learn from our racing partners.

**RD: OUTSIDE OF THE CAR WORLD, ARE THERE ANY OTHER SECTORS LEADING THE WAY IN INNOVATION?**

**TS:** For me, there are two key examples. The first is aerospace. When you think about Concorde, it's still a good-looking plane, which was shaped by aerodynamics to be the fastest in the world at the time<sup>3</sup>. It has an integrated rear wing, which you don't see. Our cars also have an integrated rear wing on some of our models, which is something we've learned from the aerospace industry.

I also love real Swiss watches. Everyone enjoys an analogue watch because it offers you a tactile experience, which is something we bring to our cars. It gives you a real connection when you touch something, which can be very inspiring.

You could say one of those examples is about driving ideas from a technical point of view and the other is much more about craftsmanship and emotion.

**RD: WHERE DID YOUR FASCINATION WITH CARS BEGIN?**

**TS:** When I was a kid, I loved to draw cars and my parents said that I could draw in 3-D when I was five years old. I got really hooked on the idea of working in the industry when I read an article in a German car magazine about a university course on transportation design. Even then, I thought that I could turn my love of sketching into a profession.

**RD: LOTS OF KIDS DRAW CARS, BUT NOT ALL OF THEM END UP IN YOUR JOB. WHY SUPERCARS?**

**TS:** I love all cars, but supercars have something special. They go to the limit and try to be at the forefront in terms of technology and innovation.

**RD: DO YOU HAVE A FAVOURITE SUPERCAR YOURSELF?**

**TS:** I love the Artura. You can go into the E-mode (emissions-free) and drive through the city and then really speed up on the country roads. I also like the fact that McLarens are easy to enter and exit. With some supercars, you feel like you have to do yoga poses to get in and out.

Then, there's the McLaren F1, which was first produced in the 1990s as a three-seater sports car and really was something special. It had a price tag of roughly one million dollars when it launched and now changes hands for approximately \$20.5 million at auction<sup>4</sup>.

But my favourite car is always the one I'm currently working on.

**RD: IF IT'S POSSIBLE TO SAY, WHERE DO YOU SEE THE FUTURE OF CARS IN FIVE, 10, 20 OR EVEN 50 YEARS?**

**TS:** There's a lot of innovation happening right now. As a small company, we can be open to developing models that our customers love to drive, which is something that won't change in 50 years.

If you think of autonomous driving, there will be some cars that you can sit in and be driven in the future, but McLaren cars will be like a racehorse. You don't have horses in big cities anymore, but you have horseracing as a sport on a track. People will always love to drive cars themselves and driving will always be a sport.

One thing we know about our customers is that they love to take their cars to the racetrack and they do higher mileage in their McLarens than some of their other cars in their collection.

But to go back to my earlier point, there are many exciting developments in the industry at the moment that it almost feels as though we're already in the future.



<sup>1</sup> McLaren website, McLaren Racing Pioneers Use of Sustainable Materials with Innovative Recycled Carbon Fibre Trial, 12 October 2023

<sup>2</sup> BBC News, 'Carbon fibre's journey from racetrack to hatchback', 10 March 2011

<sup>3</sup> Simple Flying, 'How fast did Concorde actually fly from New York to London?', 14 May 2024

<sup>4</sup> CNBC, 'McLaren F1 sells for \$20.5 million, the most expensive car auctioned this year', 14 August 2021



# Forging a greener future

Photo credit: PT Gunung Raja Paksi Tbk



Read the inside story of how one of Asia's best-known steel corporations evolved its business and created a family office to pursue a different future.

**Please note: This article is designed to be thought leadership content, to offer big picture views and analysis of interesting issues and trends that matter to our clients and the world in which we live. It is not designed to be taken as expert advice, investment advice or a recommendation, and any reference to specific companies is therefore not an opinion as to their present or future value or broader ESG credentials. Reliance upon any of the information in this article is at the sole discretion of the reader. Some of the views and issues discussed in this article may derive from third-party research or data which is relied upon by Barclays Private Bank and may not have been validated. Such research and data are made available as additional information for the reader where appropriate.**

Steel production contributes 8% of total global emissions<sup>1</sup>. So transitioning it to a lower-carbon intensity is critical to address climate change. Currently the steel industry is "not on track" to reduce emissions to be on the International Energy Agency's Net Zero Emissions by 2050 (NZE) Scenario<sup>2</sup>.

Damian Payiatakis, our Head of Sustainable and Impact Investing, sat down with Kimin Tanoto and Kelvin Fu of Gunung Capital, following the transformation of the family's structural steel business and subsequent sale in June 2024, which valued the business at \$450 million.

Here's how a major Indonesian steel producer committed to becoming more sustainable, and reorganised people and approach to help re-set the business and the family's finances.

**DAMIAN PAYIATAKIS (DP): WHAT PROMPTED THE DECISION TO TRANSITION THE FAMILY STEEL BUSINESS TO BE MORE SUSTAINABLE?**

**KIMIN TANOTO (KT):** The Gunung Raja Paksi (GRP) brand is very well-known in Indonesia. While steel is a commodity, with GRP's brand it has commanded a premium. Leading construction companies or government projects have all historically chosen GRP given the quality of the brand.

However, when looking ahead, we saw sustainability as the only way forward. A key challenge is that Chinese and Indian peers are much, much larger. So, they have a lot more resources. They also have a huge global market to play in, while our business has been mainly focused domestically.

We realised if the business did not transform, it would be stranded as an asset. There was really only one way we could distinguish ourselves, which was to pursue a low-carbon future for the business.

Even in 2019, the green transition made a lot of sense. Despite Indonesia lagging at that time in adopting sustainability principles, we knew that if we did not transform, eventually the business would run down. And there goes 50-plus years of family legacy.

**DP: YES, LET'S GO BACK TO 2019. SEVERAL CHANGES TOOK PLACE THAT LED US BACK TO TODAY. GRP WAS LISTED ON THE INDONESIA STOCK EXCHANGE. KIMIN TOOK ON A LEADERSHIP ROLE FOR THE FAMILY. THE INITIATIVE TO GREEN THE BUSINESS GETS STARTED. HOW WAS THAT INITIAL PERIOD OF TRANSFORMATION?**

**KELVIN FU (KF):** Initially, there was pushback. The public listing was intended to help position the company for more corporate governance and new leadership. But the reality was that across the six branches of the family, members started as very resistant to change because the business had worked [the way it had] for the past 50 years. And that's a natural hesitation, right?

But it also coincided with COVID-19, which prompted additional concern that the business might peter out. As well, Kimin, coming in as the second generation, was appointed as the one to lead all the other families. He brought a broader, longer-term and more strategic perspective.

He wasn't afraid to change what had worked in the prior 50 years – in part because, while born into the family, he hadn't only worked in the family business. Without him, without that understanding and recognition of the need to transform, none of this would have happened.

<sup>1</sup> World Economic Forum, 'Net-Zero Industry Tracker 2023 edition', November 2023  
<sup>2</sup> The International Energy Agency website, 'Steel section', June 2024



DP: THAT COMMITMENT TO CHANGE MUST HAVE BEEN CRITICAL TO PERSEVERE. LOOKING BACK NOW, WERE THERE OTHER KEY ELEMENTS THAT HELPED THE TRANSFORMATION?

KT: Overall we embarked on a drive to professionalism. That started with a deep dive into the whole business, almost like doing due diligence on ourselves. Then we sought more transparency into the finances or management decisions, and we put in place the right key performance indicators.

Also, we moved family members out of management positions and into non-executive roles, so they could be consulted but wouldn't have to run the day-to-day operations. In fact, there are no family members in the business currently. Linked to this, more external professionals were hired to run the company, many without steel experience so they were open to change and brought new ideas.

Finally, we made sustainability a strategic, commercial focus as much as a principled one. We could see western governments were very serious about going green; for example, setting policies such as the European Union's CBAM (Carbon Border Adjustment Mechanism) for steel. [CBAM seeks to align the price of imported goods with goods produced in the European Union based a cost for carbon emissions]. We thought it was only a matter of time until Indonesia would do the same and that helped to drive the change.

KF: I would rank managing stakeholder relationships, and having a strong and determined leadership with a committed team, as the most important factors. There were plenty of historical practices in the business that had outgrown their times. But people were very resistant to change even when it was clear that these original practices were hurting the business. Overcoming those required a mixture of diplomacy and determination.

Also, we were diligent to identify the macro trends that would affect our competitiveness and commercial potential; and then we have been very strategic about our approach and played to our advantages. Yes, we have a small size relative to the larger regional steel players. But that allowed us to be more nimble, and more bold to pivot to and embrace the drive towards sustainability. The valuation achieved on the sale shows this has worked greatly in our favour.

DP: THE 50 YEARS OF FAMILY LEGACY WAS MENTIONED EARLIER, HOW HAS THAT IDEA OF LEGACY INFLUENCED YOUR THINKING AND DECISION-MAKING?

KT: As I look back at how my parents had built the business from scratch and reflect on my past few years of taking charge of the business, I feel a deep sense of gratitude, respect and responsibility to continue taking the business to greater heights.

We also have many other stakeholders to take care of, including our employees, investors, and the government. They are looking to us for leadership. And this will be my next big task: to transform and position GRP for a sustainable future where we can be the most green steel player in the region.

DP: THAT'S A HUGE AMBITION, AND GUNUNG CAPITAL, AS A PRIVATE INVESTMENT COMPANY AND FAMILY OFFICE, HAS AND WILL PLAY A ROLE THERE. YOU ESTABLISHED IT TOGETHER IN SINGAPORE IN 2020. WHAT PURPOSE DOES IT SERVE?

KT: When we set up Gunung Capital, the intent was to help successfully diversify the family out of the steel business. Foremost, as is traditional for family offices, this means deploying capital into an investment portfolio or potentially into other industries.

But we've also used it as a vehicle to bring new external ideas into the existing family businesses to continue to unlock their value. We're often looking to set up new strategic partnerships while being an investor. For example, our collaboration with Fortescue Future Industries, is exploring use cases of green hydrogen in our [steel] plant.

KF: I view Gunung Capital as a crucial conduit for innovation. Through it, we've established new partnerships, explored new business opportunities, and brought new ideas and best practices back to the core businesses. For example, we have embraced the private equity industry concepts around value creation, translating them for our industry.



Photo credit: PT Gunung Raja Paksi Tbk

DP: LET'S SPEAK MORE PERSONALLY, WHAT ARE THE DYNAMICS LIKE BETWEEN YOU IN TERMS OF WORKING STYLE? WHAT WORKS? WHERE ARE THERE DIFFERENCES?

KF: I would describe Kimin as the architect who can connect seemingly disparate dots together. He has the ability to hone in on any given issue with intensity. His clarity of vision means that I am able to create a roadmap for execution and rally our team to march in the same direction. So, I see myself more as a builder.

KT: I think we work quite well together. We have the same mindset around business operations – we don't like waste and want operations to be efficient.

Also, we have a similar worldview in terms of the opportunities we're looking at – there's no question that going green and sustainable is the right way to go for us. This has evolved over time. We discussed it a lot in terms of the business and wider world. I see Kelvin as my partner who constantly pushes me to get better.

KF: While our working styles and mindset match, Kimin faces tensions that I do not. I can see he feels a deep responsibility towards his family business. So, while I can see his urgency to transform the existing business, I'm eager to look at how we build Gunung Capital to establish new businesses and provide intellectual capital back to the group.

DP: AFTER THE CARVE-OUT AND SALE OF THE STRUCTURAL STEEL BUSINESS TO STRATEGIC PARTNERS, WHAT PLANS DO YOU HAVE FOR THE FAMILY OFFICE AND REMAINING OPERATING BUSINESSES?

KF: There's still work to be done in the [flat] steel business. We're taking lessons learned over the past few years of delivering and we have to basically repeat the process. In the flat business, the machines are older and therefore require a major capacity upgrade. To establish green capacity may cost up to US\$600 million. So, this again is another big conviction to transform this business. But once done, it will probably create one of the lowest carbon steel players in the region. We are working with key stakeholders to source green power, replace with the most advanced and energy efficient steel making equipment, and identify key customers that have high demands for green steel.

We're also targeting new products for Indonesia actually, such as replacing asbestos roofing with new coated-steel roofs. Or Electric Resistance Welded (ERW) steel pipes, which have numerous green applications and can be produced with a lower carbon footprint. We are very cognisant of the need, and opportunity, to solve for the green demand across Asia.



KT: He's right. Looking further out, there's a tremendous opportunity for us to position GRP as the most green, technically advanced, efficient and profitable steel business in the region. We're working to make this a reality as we speak.

Asian steel mills are not known to be green because of the prevalence of blast furnace steel mills. GRP is one of the very few electric arc furnace steel mills in this region. If we can be very targeted with our product mix and be fully integrated, I think we can capture a lot of the margins that have previously been left on the table.

DP: OK, SO THAT'S THE BUSINESS SIDE, WHAT ABOUT THE INVESTMENT PORTFOLIO?

KT: We do not want to be purely financial investors. We still want to find operating businesses that will continue to deliver a lot more value for us. The family still wants to think and act like business owners, in a sense we can see us becoming more like a private equity firm.

For us, there's no fun in only being an LP (Limited Partner) in funds. We do, and will invest in funds though. We can learn through them, and we also see co-investment opportunities. We can get to know multiple businesses and then we get to pick and invest in the one that we like.

DP: INTERESTING STRATEGY, AND WE SEE MORE FAMILIES INVESTING IN CLIMATE FUNDS LOOKING TO BENEFIT FROM THEIR FOCUS AND EXPERTISE, AND GAIN VISIBILITY TO PICK COMPANIES TO TAKE FURTHER FROM THE PORTFOLIO. SO WHICH SECTORS AND INDUSTRIES ARE INTERESTING FOR FUTURE INVESTMENTS?

KF: At this phase of our evolution, we're looking at opportunities that are adjacent to our core business. And that fundamentally means industrial de-carbonisation.

We already understand it. We deep dove into the green economy and said, "OK, what are the sectors that we can invest in because we have experience?". Of course, we will still look at where our impact can be maximised too, which is existing steel and other operating businesses.

KT: Also, we have proven that we've managed to transition a brown business and sold it for a higher valuation than if it had not been more green.

If we can repeat that, it will demonstrate that we have strong value creation capabilities in a very tough environment, transforming a family business to operate professionally and making it more sustainable. The question therefore is can we translate that expertise into running the other companies that we invest in?

DP: WHAT ROLE DO YOU IMAGINE THE FAMILY WILL PLAY IN THE FUTURE? HOW DO YOU THINK ABOUT YOUNGER GENERATIONS?

KT: I recently arranged for my children to visit our steel manufacturing plant in Indonesia for the first time. I think they finally caught a glimpse of what exactly I do at work.

While understanding the family business is important, I place more emphasis on their education, critical thinking, global exposure, and abilities to adapt and learn.

The challenges facing younger generations are going to be different from the ones we face presently. I believe that AI will be disruptive. It has already started to make significant impacts in all aspects of businesses.

My focus is to create a more sustainable future for them. A world where they can thrive. I am doing that through my work in pursuing green steel and investing in other industries that support decarbonisation.

DP: ANY FINAL THOUGHTS FOR OTHER FAMILIES?

KF: Don't try to do 50 things at once – running, or greening, the operating business, and managing investments, and coordinating family dynamics and more. My view initially was "I've got to be very hands-on", but then I realised my resources are limited. Decide what you are really good at, and then be willing to pay to outsource the rest. Then you can focus your time and energy on where you add the most value.

KT: Recognise the tension that resides in the responsibility towards your family and the existing operating business versus professionalisation and future wealth.


Many family offices in Asia are newly set up and they're all figuring out their way forward. Even we are still doing this; it takes time. So be patient but determined.



Photo credit: PT Gunung Raja Paksi Tbk



# Space: The ultimate travel high



Could a hobby reserved for billionaires soon open up to more thrill-seekers? Join us as we look at a unique tourist attraction on the rise.

The final frontier is finally opening up. How soon could new space tourism companies – previously the reserve of thrill-seeking billionaires – promise to offer something for almost everyone?

It's been a long wait for space tourism to take off, and despite teething problems, trips into orbit may soon become more accessible.

From 10-day stays on the space station for those ready to pay upwards of \$55 million<sup>1</sup>, through to suborbital roller coaster jaunts for about \$450,000 to more luxurious flights on stratospheric balloons for about \$150,000<sup>2</sup> – the space tourism sector has the potential to cater to anyone desiring an otherworldly experience. That is, anyone who can afford it.

We are not quite there yet, but analysts see a bright future as demand has been steady despite setbacks. Supersonic climbs, freedom from the confines of gravity and magnificent views of the planet from above are so alluring that companies such as Virgin Galactic have accumulated waiting lists of hundreds of wannabe spacefarers.

By the end of this decade, space tourism flights may be taking off multiple times per week, and tickets might settle at more affordable levels, allowing many more adventurers to enjoy something that has so far been prohibitively expensive.

## JOURNEY TO THE EDGE OF SPACE

The world first caught space fever two decades ago when SpaceShipOne, an experimental three-person space plane was developed by aerospace engineer Burt Rutan, winner of the Ansari X Prize. The star-covered vehicle blasted off towards the edge of space from below the White Knight carrier plane above California's Mojave Desert on 21 June 2004. It became the first crewed, privately built vehicle to cross the Kármán line, the theoretical boundary between Earth's atmosphere and outer space at an altitude of 100 kilometres (km).

Virgin Galactic soon stepped in, contracting Rutan's company Scaled Composites to develop a larger vehicle to provide the experience to paying customers. That bigger spaceplane, SpaceShipTwo, first rolled out of its hangar in 2009 amid promises it would be taking paid trips to space in three years' time. The wait, indeed, was much longer, marred by a crash in 2015 that killed one pilot and seriously injured the other.

## VEERING OFF COURSE

But in July 2021, Virgin Galactic was ready to prove naysayers wrong, sending SpaceShipTwo for its first fully crewed adventure. The flight didn't go as well as Virgin Galactic had hoped, resulting in a grounding by the U.S. Federal Aviation Administration<sup>3</sup> after SpaceShipTwo veered off its permitted path.

Hot on Virgin Galactic's heels was Blue Origin, whose New Shepard rocket blasted off the company's spaceport in Texas only nine days after Virgin's ill-fated flight. Since then, the two companies have sent more than 50 people into space between them.

Virgin Galactic offers tickets for \$450,000<sup>4</sup>. It is not known how much Blue Origin charges, but a seat on the company's first crewed trip in 2021 sold for \$28 million<sup>5</sup> in an online auction. Right now, flight opportunities are limited, and it's not clear who gets priority.

<sup>1</sup> Axiomspace.com, 'Want to take a 10-day trip to the space station? It will cost you \$55 million', 14 June 2018

<sup>2</sup> Virgin Galactic website, 'Virgin Galactic launches spaceflight reserves and new consumer brand', 15 February 2022

<sup>3</sup> Ars Technica, 'The FAA The FAA grounds Virgin Galactic's spaceship after flight deviation', 9 February 2021

<sup>4</sup> Virgin Galactic website, 'Virgin Galactic launches spaceflight reserves and new consumer brand', 15 February 2022

<sup>5</sup> Blue Origin website, 'The very first seat on New Shephard sells for \$28 million', 12 June 2021



## SEVEN MINUTES OF WEIGHTLESSNESS

Although Blue Origin and Virgin Galactic's suborbital vehicles are quite different, they both offer short spells of weightlessness, estimated to last seven minutes. To put the brevity into context, the ride on Blue Origin's pilotless New Shepard<sup>6</sup> lasts just 11 minutes.

When the rocket shoots upwards, passengers get pinned into their seats with three times the force of Earth's gravity. The squeeze lasts about two-and-a-half minutes, reaching three times the speed of sound.

When the engine cuts out, the capsule enters free fall, although technically still climbing for another one-and-a-half minutes. In that moment, the weight dissolves and hyper gravity changes into weightlessness.

## THE WINDOW SEAT

Behind the capsule's large windows, the curvature of the Earth shrouded in the misty atmosphere retreats. With the thickest layer of the atmosphere left behind, the sky turns black, revealing its star-studded beauty. Passengers can then unbuckle from their seats and explore different perspectives from each of New Shepard's windows, which are the largest-ever in space<sup>7</sup>.

The capsule reaches its peak about 100km above the planet and begins its seven-minute descent. The weightless reverie comes to a halt when the deployment of the parachute stops the freefall some 2km above Earth's surface. The passengers, by this time strapped back in their seats, briefly experience a pressure equal to five times Earth's gravity.

## SOARING SKYWARDS

The trip with Virgin Galactic is a longer affair, involving a take-off of the twin-fuselage White Knight Two carrier plane that drops off SpaceShipTwo with its passengers at an altitude of 15.5km. From there, SpaceShipTwo soars skyward, having already bypassed the densest layer of Earth's atmosphere.

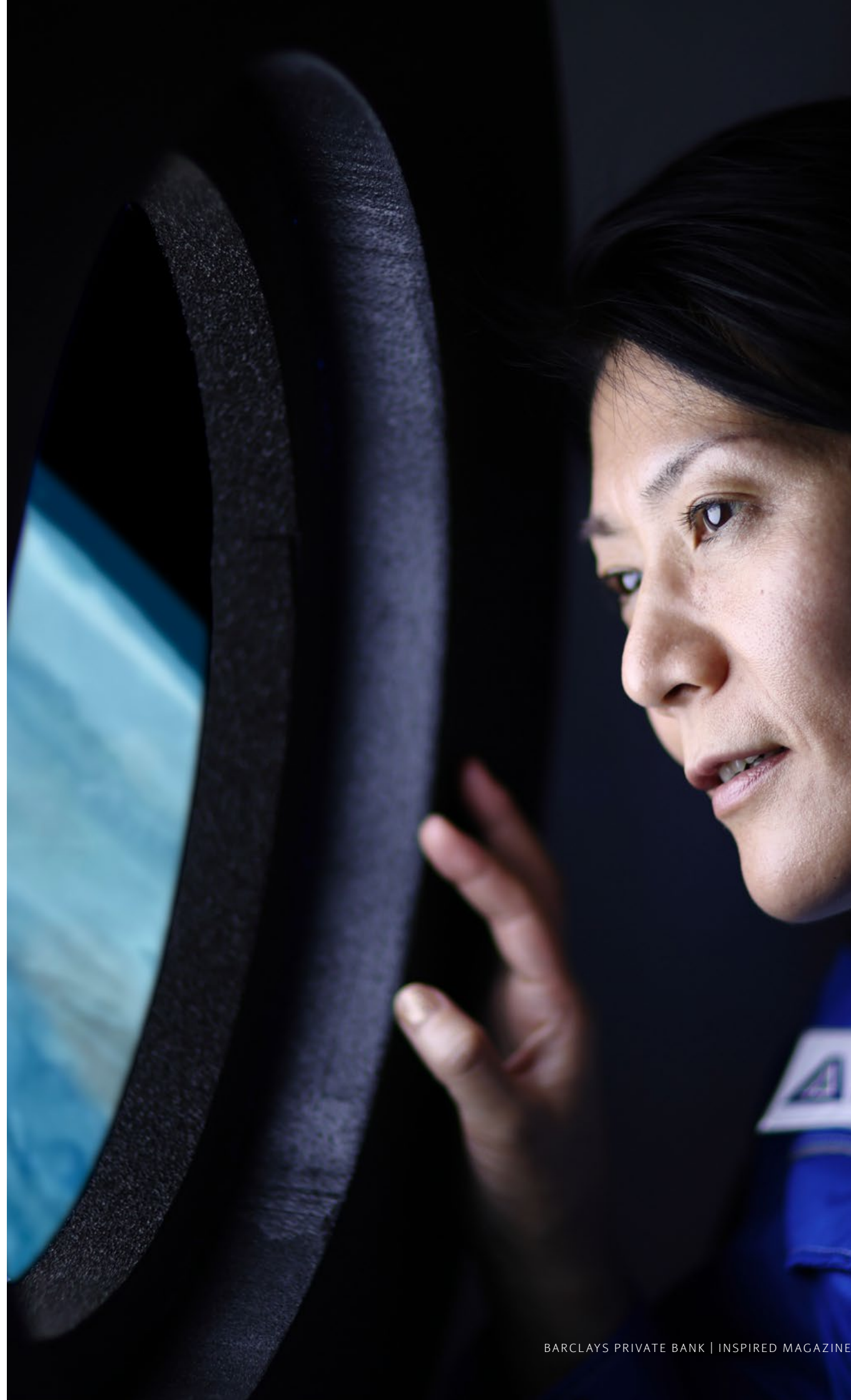
Similar to the experience of Blue Shepard passengers, space tourists inside Virgin Galactic's plane experience about three times the force of Earth's gravity during the rocket-powered climb, followed by seven minutes of weightless floating.

Instead of using parachutes, SpaceShipTwo's pilots manoeuvre the plane out of free fall by deploying a breaking tail some 16km above the Earth. The plane then glides back to the spaceport like any normal aircraft.

<sup>6</sup> Blue Origin website, 'New Shepard is ushering in new generations of astronauts', 20 May 2024

<sup>7</sup> Blue Origin website, 'New Shepard is ushering in new generations of astronauts', 20 May 2024

<sup>8</sup> Axiom Space, 'Want to take a 10-day trip to the space station? It'll cost you \$55 million', 14 June 2018



## SCALING UP

Virgin Galactic is currently working on its next-generation Delta spaceplane that will be able to fly six passengers and take off for its out-of-this-world excursions twice a week. If all goes well, Delta will pass its test flights in 2025 and commence commercial operations in 2026, allowing Virgin Galactic to finally attend to its growing waiting list.

Less is known about Blue Origin's plans as the company also has stakes in the more ambitious orbital and lunar travel market, planning to launch its own space station, the Orbital Reef, by the end of this decade.

Unfortunately for some, rocket flight may not be for everyone. Although people as old as 90 have taken part in sub-orbital flights, many medical conditions prohibit participation. An alternative for comfort lovers may soon become available, which anyone fit enough to fly on a commercial jet could be able to enjoy.

US-based Space Perspective and Spain-headquartered HALO Space are building pressurised capsules that could rise to the stratosphere, the second lowest layer of Earth's atmosphere, attached to helium-filled balloons.

Such a voyage involves a minor jerk at lift-off as the balloon pulls the capsule off the ground at 12 miles per hour. Rather than an adrenaline-filled roller coaster, the balloon would offer a six-hour meditative cruise complete with fine dining and champagne.

## THE FULL-ON EXPERIENCE

For those with the deepest pockets and an insatiable appetite for adventure, options are also set to expand. The Inspiration4 mission saw four civilians orbit Earth for three days in SpaceX's Dragon Crew capsule in September 2021. Commander and sponsor, entrepreneur Jared Isaacman, has since announced plans to fly a further three private missions as part of the Polaris Dawn project. Isaacman's and SpaceX's daring mission involves venturing nearly four times farther than the International Space Station.

Opportunities for private visits to the International Space Station are also expanding as US-based Axiom offers 10-day trips for \$55 million<sup>8</sup> a seat.

In the future, the price of these trips might drop if plans to build private space stations by companies including Axiom, Blue Origin and Airbus come to fruition at the end of this decade.

More and more of us, it seems, could soon have the opportunity to go where very few have gone before.



## DISCLAIMER

This communication is general in nature and provided for information/educational purposes only. It does not take into account any specific investment objectives, the financial situation or particular needs of any particular person. It is not intended for distribution, publication, or use in any jurisdiction where such distribution, publication, or use would be unlawful, nor is it aimed at any person or entity to whom it would be unlawful for them to access.

This communication has been prepared by Barclays Private Bank (Barclays) and references to Barclays include any entity within the Barclays group of companies.

This communication:

- (i) is not research nor a product of the Barclays Research department. Any views expressed in these materials may differ from those of the Barclays Research department. All opinions and estimates are given as of the date of the materials and are subject to change. Barclays is not obliged to inform recipients of these materials of any change to such opinions or estimates;**
- (ii) is not an offer, an invitation or a recommendation to enter into any product or service and does not constitute a solicitation to buy or sell securities, investment advice or a personal recommendation;**
- (iii) is confidential and no part may be reproduced, distributed or transmitted without the prior written permission of Barclays; and**
- (iv) has not been reviewed or approved by any regulatory authority.**

Any past or simulated past performance including back-testing, modelling or scenario analysis, or future projections contained in this communication is no indication as to future performance. No representation is made as to the accuracy of the assumptions made in this communication, or completeness of, any modelling, scenario analysis or back-testing. The value of any investment may also fluctuate as a result of market changes.

Where information in this communication has been obtained from third party sources, we believe those sources to be reliable but we do not guarantee the information's accuracy and you should note that it may be incomplete or condensed.

Neither Barclays nor any of its directors, officers, employees, representatives or agents, accepts any liability whatsoever for any direct, indirect or consequential losses (in contract, tort or otherwise) arising from the use of this communication or its contents or reliance on the information contained herein, except to the extent this would be prohibited by law or regulation.

## IMPORTANT INFORMATION

Barclays offers private and overseas banking, credit and investment solutions to its clients through Barclays Bank PLC and its subsidiary companies. Barclays Bank PLC is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority (Financial Services Register No. 122702) and is a member of the London Stock Exchange and Aquis. Registered in England. Registered No. 1026167. Registered Office: 1 Churchill Place, London E14 5HP.

Barclays Bank PLC, Jersey Branch has its principal business address in Jersey at 13 Library Place, St Helier, Jersey and is

regulated by the Jersey Financial Services Commission. Barclays Bank PLC, Isle of Man Branch has its principal business address in the Isle of Man at Barclays House, Victoria Street, Douglas, Isle of Man and is licensed by the Isle of Man Financial Services Authority. Barclays Bank PLC, Guernsey Branch has its principal place of business at St Julian's Court, St Julian's Avenue, St Peter Port, Guernsey and is licensed by the Guernsey Financial Services Commission under the Banking Supervision (Bailiwick of Guernsey) Law 1994, as amended, and the Protection of Investors (Bailiwick of Guernsey) Law 1987, as amended.

Barclays Bank Ireland PLC, trading as Barclays and as Barclays Private Bank, is regulated by the Central Bank of Ireland. Registered in Ireland. Registered Office: One Molesworth Street, Dublin 2, Ireland, DO2 RF29. Registered Number: 396330. VAT Number: IE4524196D. Calls are recorded in line with our legal and regulatory obligations, and for quality and monitoring purposes.

Barclays Bank (Suisse) SA is a Bank registered in Switzerland and regulated and supervised by FINMA. Registered No. CH-660.0.118.986-6. Registered Office: Chemin de Grange-Canal 18-20, P.O. Box 3941, 1211 Geneva 3, Switzerland. Registered branch: Beethovenstrasse 19, P.O. Box, 8027 Zurich. Registered VAT No. CHE-106.002.386. Barclays Bank (Suisse) SA is a subsidiary of Barclays Bank PLC.

In the Principality of Monaco, Barclays Bank PLC operates through a branch which is duly authorised and falls under the dual supervision of the Monegasque regulator 'Commission de Contrôle des Activités Financières' (with regards to investment services) and the French regulator 'Autorité de Contrôle Prudentiel et de Résolution' (in respect of banking & credit services and prudential supervision). The registered office of Barclays Bank PLC Monaco branch is located at 31 avenue de La Costa, MC 98000 Monaco – Tel. + 377 93 15 35 35. Barclays Bank PLC Monaco branch is also registered with the Monaco Trade and Industry Registry under No. 68 S 01191. VAT No. FR 40 00002674 9.

Barclays Bank PLC (DIFC Branch) (Registered No. 0060) is regulated by the Dubai Financial Services Authority. Barclays Bank PLC (DIFC Branch) may only undertake the financial services activities that fall within the scope of its existing DFSA licence. Principal place of business: Private Bank, Dubai International Financial Centre, The Gate Village Building No. 10, Level 6, PO Box 506674, Dubai, UAE. This information has been distributed by Barclays Bank PLC (DIFC Branch). Certain products and services are only available to Professional Clients as defined by the DFSA.

Barclays Bank Plc (Incorporated in England and Wales) (Reg. No: 2018/599243/10) is an authorised financial services provider under the Financial Advisory and Intermediary Services Act (FSP 50570) in South Africa and a licensed representative office of a foreign bank under the Banks Act, 1990. Barclays Bank PLC, has its principal place of business in South Africa, at Level 5, Building 3, 11 Alice Lane, Sandton 2196.

Barclays Bank PLC Singapore Branch is a licenced bank in Singapore and is regulated by the Monetary Authority of Singapore. Registered in Singapore. Registered No. S73FC2302A. Registered Office: 10 Marina Boulevard, #25-01, Marina Bay Financial Centre Tower 2, Singapore 018983.

Registered Office in India: 801/808 Ceejay House, Shivsagar Estate, Dr Annie Besant Road, Worli Mumbai 400 018. Barclays Bank Plc is a member of Banking Codes and Standards Board of India.



