



MUBADALA

# INVESTING FOR A **SUSTAINABLE FUTURE**

# 2023

Annual Review





Mubadala Investment Company manages a diverse portfolio of assets and investments both in the United Arab Emirates and internationally, with a mandate to generate sustainable financial returns for its shareholder, the Government of Abu Dhabi.

Today, Mubadala is a AED 1,111 billion (USD 302 billion) business with investments in six continents and interests in multiple sectors and asset classes.

Headquartered in Abu Dhabi, Mubadala has offices in London, New York, Moscow and Beijing. Through its wholly-owned subsidiary, Mubadala Capital, has a presence in San Francisco and Rio de Janeiro.

Looking ahead, our ambition is to double the size of our portfolio in the coming decade.

This Annual Review highlights some of the most significant milestones during 2023 and showcases our strategic vision and the lasting positive global impact of our investments and partnerships.

# CONTENT

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## 01 OUR LEADERSHIP

- 03 Message from the Chairman
- 05 Message from the Managing Director & Group CEO
- 07 Board of Directors
- 09 Investment Committee

## 11 ABOUT MUBADALA

- 13 Our Strategy
- 15 Our Values
- 15 Our Culture
- 16 Our Employee Community
- 18 Volunteering
- 21 The Mubadala Foundation

## 23 PERFORMANCE 2023

- 25 Message from the Chief Financial Officer
- 27 Financial Overview
- 28 Performance Charts
- 33 Key Investment Highlight

## 45 RESEARCH STUDIES

- 47 Artificial Intelligence
- 50 Renewables and Energy Storage
- 53 Profits & Progress
- 57 Will Emerging Technologies
- 59 The Megatrend Effect

## 65 RESPONSIBLE INVESTING

- 67 The Year of Sustainability and COP28
- 68 Responsible Investing Approach
- 73 Net Zero
- 78 COP 28
- 79 Key Event highlights

## 93 CASE STUDY

- 95 Investment In Partnership
- 101 Investment In Communities
- 105 Investment For Tomorrow



# OUR LEADERSHIP





"The company's priorities for the coming decades necessarily remain underpinned by the objective of continued and significant expansion of the UAE's globally connected economy."

### His Highness Sheikh Mansour bin Zayed Al Nahyan

UAE Vice President, Deputy Prime Minister, Chairman of the Presidential Court, and Chairman of the Mubadala Board



## ACCELERATING TRANSFORMATION

With a mandate to develop and advance our knowledge and innovation economy, Mubadala has consistently delivered at the leading edge of national progress for over two decades. Mubadala's ongoing impact remains fundamental to the UAE's continuous growth and our global economic significance.

The company's priorities for the coming decade underpin the continued expansion of the UAE's globally connected economy. Through this expansion, Mubadala and its I partners broke new ground over the past year in key sectors and geographies.

In 2023, the company's leadership and investments in artificial intelligence, clean energy, life sciences, private credit, and advanced manufacturing were aligned with its strategy of focusing on opportunistic and future-oriented sectors.

Across all these areas, Mubadala continued to cement critical competitive advantages for the nation and, in doing so, delivered on national strategies to create global value chains that leverage and advance our position at the intersection of East and West, North and South.

Central to Mubadala's global portfolio is a dedication to partnerships and responsible investment, reflecting the UAE's commitment to fostering international cooperation and driving global progress.

It is a point of pride that the company's actions continue to create opportunities for future generations of Emirati nationals and the citizens of two hundred nationalities who have made their home in the UAE. Many accomplished individuals who began their

careers with Mubadala now lead important public and private institutions, driving initiatives that shape our new domestic economy and leadership on global issues.

The human opportunity and global value created by Mubadala are perhaps the most potent measure of how the company represents the exceptional leadership of His Highness Sheikh Mohammed bin Zayed, President of the United Arab Emirates, who also served as Mubadala's founding Chairman.

Mubadala's achievements reflect and set benchmarks for the UAE's future trajectory. I want to congratulate His Excellency Khaldoon Khalifa Al Mubarak, the Mubadala team, and our global partners for their focus and vision and for their unrelenting commitment to driving progress amidst complex global dynamics.

The Board of Directors is privileged to guide the company in this transformative period as the United Arab Emirates advances the extraordinary legacy of our founding father, the late Sheikh Zayed bin Sultan Al Nahyan.



"Our group-wide focus on responsible investing to deliver impact with key partners highlights the increasing role of sovereign funds like ourselves as enablers of progress, not just asset allocators."

**His Excellency Khaldoon  
Khalifa Al Mubarak**

Managing Director and Group CEO



## INVESTING AT THE LEADING EDGE OF PROGRESS

Amidst the complexities that defined the global investment landscape in 2023, Mubadala accelerated its shift towards targeted investments that will shape the future economy of the United Arab Emirates.

We remained proactive and agile in seeking new opportunities and collaborating with partners to advance existing sectors and create value in new areas. Digital infrastructure, life sciences, artificial intelligence, future energy, and pioneering technologies are all enablers of global progress and, simultaneously, highly profitable sectors with significant growth potential.

As Mubadala's global presence continued to expand, we deepened our asset management expertise and broadened our private credit and international private equity platforms. This expansion created important pathways that strengthen the United Arab Emirates as a hub for the world's best talent, ideas, and opportunities.

Strengthening our international teams through talent in major cities remains a priority as we scale investments in key regions, including the United States and Europe. Parallel to this growth, we are laying the foundations for significant capital deployment in Asia and South America in the coming years.

Our group-wide focus on responsible investing to deliver impact with key partners highlights the increasing role of sovereign funds as enablers of progress, not just asset allocators.

Our focus on industries of the future such as AI mirrors the proactive stance we took on renewable energy in 2006, which resulted in Masdar becoming one of the world's fastest-growing clean energy companies and an enabler of the energy transition for over seventy countries. We have already delivered AI investments and partnerships that offer profound benefits, particularly in the life

sciences and primary care sectors. We are now embarking on a new phase of responsible AI stewardship as a founding partner of MGX, where we are committed to harnessing cutting-edge technologies to forge new economic pillars for the nation and benefit society globally.

Across all future industries with transformative impact, we are focused on strong collaboration between governments and investors on policymaking and developing shared opportunities. Mubadala's Board of Directors has encouraged the management team to foster partnerships that drive responsible, sustainable, and beneficial investment outcomes.

I want to thank our Founding Chairman, His Highness Sheikh Mohamed bin Zayed Al Nahyan, for his vision and leadership that set the trajectory for Mubadala since our inception. Over the years, we have experienced growth that is reflective of the aspirations of the United Arab Emirates.

I thank our Chairman, His Highness Sheikh Mansour bin Zayed Al Nahyan, for his stewardship, which guides us as we embark on Mubadala's most ambitious chapter yet.

On behalf of Mubadala, I thank our Board for their steadfast direction, our partners for their collaboration, and my colleagues for their dedication. We are committed to remaining a pioneer of responsible investment and partnership, driving the UAE's progress, and making impactful contributions worldwide.



# BOARD OF DIRECTORS

The Board of Directors is responsible for Mubadala's strategic direction, oversight, and corporate governance, ensuring the business delivers on the investment and diversification priorities of the Government of Abu Dhabi.

As a global and responsible investor, Mubadala is at the forefront of Abu Dhabi's efforts to drive sustainable economic growth by investing across multiple asset classes, sectors and geographies, with a particular interest in sectors that will contribute to a sustainable future, such as technology, life sciences, and energy transition.

Mubadala benefits from the long-term support of its sole shareholder, the Government of Abu Dhabi, as we work to achieve our commercial goals while operating with the highest levels of integrity.

**His Highness Sheikh  
Theyab bin Mohamed bin  
Zayed Al Nahyan**

Board Member



**His Excellency Khaldoon  
Khalifa Al Mubarak**

Managing Director and  
Group CEO



**His Excellency Suhail  
Mohamed AlMazrouei**

Board Member



**His Excellency  
Dr Sultan Ahmed Al Jaber**

Board Member



**His Excellency Abdulhamid  
Mohamed Saeed**

Board Member



**His Excellency  
Saif Saeed Ghobash**

Board Member



# LEADERSHIP COMMITTEE

## INVESTMENT COMMITTEE

Mubadala's Investment Committee is responsible for developing and monitoring the organization's investment strategy and for the overall company performance.

In 2023, the Committee convened 51 times to discuss 86 items and addressed a further 47 items by circulation.

## INVESTMENT & BUSINESS PLANNING COMMITTEE

Mubadala's Investment & Business Planning Committee is responsible for reviewing the individual business plans of each investment platform and submitting them for endorsement from Mubadala's Investment Committee.

It monitors and tracks the progress of individual platforms against their business plans.

The Committee convened 20 times in 2023 to discuss 45 items and addressed a further 15 items by circulation.

## MANAGEMENT COMMITTEE


Mubadala's Management Committee is responsible for reviewing and approving corporate matters, such as corporate policies and procedures, strategic human capital issues, employee engagement, communication, and branding.

The Committee convened 9 times in 2023 to discuss 10 items and addressed a further 10 items by circulation.

**His Excellency  
Khaldoon Khalifa Al  
Mubarak**  
Managing Director and  
Group CEO



**Waleed Al Mokarrab  
Al Muhairi**  
Deputy Group Chief  
Executive Officer




**Homaid Al Shimmari**  
Deputy Group CEO, Chief  
Corporate & Human  
Capital Officer




**Ahmed Saeed Al Calily**  
Chief Strategy & Risk  
Officer




**Ahmed Yahia Al  
Idrissi**  
Chief Executive Officer,  
Direct Investments




**Hani Ahmad Barhoush**  
Chief Executive Officer,  
Diversified Investments




**Samer Halawa**  
Chief Legal Officer




**Carlos Obeid**  
Chief Financial Officer




**Saeed Al Mazrouei**  
Managing Director and  
CEO, Abu Dhabi  
Investment Council



**Dr. Bakheet Al Katheeri**  
Chief Executive Officer,  
UAE Investments



**Khaled Al Shamlan Al  
Marri**  
Chief Executive Officer,  
Real Estate & Infrastructure  
Investments





# ABOUT MUBADALA

Mubadala is a sovereign investor managing a diverse portfolio of assets in the UAE and abroad. We are commercially-focused, deploying capital across our portfolio in promising sectors and geographies.



  
MUBADALA

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# OUR STRATEGY

We partner with best-in-class investors all around the world and deploy capital purposefully.

Mubadala is a responsible global investor, active across multiple sectors, asset classes and geographies. We partner with best-in-class investors all around the world and deploy capital purposefully, to generate sustainable long-term financial returns, while delivering positive outcomes for current and future generations.



As a forward-leaning and responsible investor, Mubadala continuously endeavors to:

- Focus on preserving and creating value in portfolio companies and supporting them in their growth trajectories.
- Build and strengthen relationships with institutions that share similar values.
- Deliver tangible positive impact to people, communities and the environment, in the UAE and abroad.

Mubadala has a long-term investment horizon and invests in areas of high conviction with the aim of building a resilient, well-diversified portfolio. This approach has led to investments in areas with strong tailwinds. Some examples include: technology, healthcare, digital infrastructure, the energy transition and Asia.

Mubadala's investment strategy and activity is underpinned by a set of core themes:

- Globalization is expected to continue to be more fragmented, with regions growing at different paces, leading to less synchronized economic cycles, while supply chains become increasingly regionalized over the next decade..
- Breakthroughs in Artificial Intelligence and technological innovation will deliver increased digitalization and exponential progress across sectors, presenting new opportunities and risks.

- Resource scarcity, energy security and increased visibility of climate change will accelerate the global push towards clean and new energy, as well as sustainable capitalism.
- Demographic and social shifts including aging populations, a rising middle class in developing and emerging markets, and a greater focus on social issues among younger generations will continue to shape market dynamics.
- Rapid urbanization and growing populations in cities will drive significant demand for infrastructure, transportation and housing. This will be coupled in developed markets with infrastructure renewal and upgrading, with a focus on digitisation and sustainability.

Mubadala periodically reviews its Strategy and dynamically adapts to the changing landscape, as it furthers the Shareholder's strategic objective of building a globally integrated and diversified economy.

## OUR VALUES



### ACCOUNTABILITY

We take responsibility for everything we say and do.



### INTEGRITY

We strive to do what is right, even when it is hard.



### INSPIRATION

We are motivated to make a difference.



### PARTNERSHIP

We achieve more together.

## OUR CULTURE

This year, our journey to embed our values and culture into every corner of our global offices has taken remarkable strides, guided by a series of targeted engagement activities.

- Through our recognition program, we have celebrated the diverse contributions of our employees, reinforcing the importance of promoting a culture of recognition.
- The feedback gathered from our engagement survey alongside ongoing engagement related focus groups with our international colleagues has been pivotal in tailoring initiatives that resonate on a global scale, ensuring our strategies are inclusive and effective.

- Our volunteering program has brought our teams together, embodying our commitment to social responsibility and community engagement, and highlighting the collective impact we can achieve. Alongside these programs, our varied engagement efforts have played a critical role in weaving our core values into the fabric of our day-to-day operations, ensuring that despite geographical distances, our culture remains unified and deeply interconnected

## EMBEDDING OUR VALUES & CULTURE



## EMPLOYEE COMMUNITY



### MUBADALA YOUTH COUNCIL

The Mubadala Youth Council is committed to fostering the voices of our young professionals across all levels of our organization, driving innovation, and shaping our future.

Known in Arabic as Shabab Mubadala, the Council was formed in alignment with the UAE's National Youth Agenda - a forum to harness the energy and expertise of young professionals

for missions around sustainable, clean energy solutions and building a stronger, more integrated partnership ecosystem.

The Council also engages youth from Mubadala's international offices and UAE portfolio companies to shape an inclusive, innovative and sustainable future with them.

## WORLD CHILDREN'S DAY

We celebrated World Children's Day on 17 November by inviting employees to bring their children, aged 3 to 14, to our offices. This special day allowed children to better understand their parents' daily work routines, growing a deeper appreciation for their efforts.

We also organized a variety of exciting activities for kids of all ages in the outdoor area of the low-rise building at Mubadala Tower, including live cooking sessions, fun games, creative workshops, face painting, and shows.



## MUBADALA WELLNESS TALKS

"Mubadala Wellness Talks" took place dedicated to promoting the wellbeing of children, and breaking the stigma surrounding men's mental health.

In the first session, "Children's Wellbeing: Nurturing Resilient Minds", Ameena Thabet, Executive Director of Human Capital, and Dr. Saliha Afridi, Clinical Psychologist and Managing Director of The LightHouse Arabia, explored the challenges faced by children and adolescents in the UAE and how parents can help them maintain good mental health. We discussed the struggles children and parents encounter, factors contributing to mental health problems, and the impact of technology on young minds.

The second session, "Men's Mental Health: Breaking the Stigma", led by Dr. Bakheet Al Katheeri, Chief Executive Officer, UAE Investments, and Dr. Saliha Afridi, aimed to destigmatize men's mental health and create a safe space for discussion. This session highlighted common misconceptions about men's mental health and the challenges men face when seeking support. We also explored specific mental health challenges among men, the factors contributing to these difficulties, and the role of societal expectations in shaping men's mental health experiences.



## VOLUNTEERING

### MAKING A DIFFERENCE MUBADALA'S EMPLOYEE VOLUNTEERING PROGRAM

Mubadala's Employee Volunteering Program is a purpose-driven engagement platform that provides meaningful opportunities for employees to contribute their time, skills and charity to the community.

It further complements our presence in international markets by enhancing brand visibility and reputation while fostering positive relationships with local communities and partners.

Making a World of Difference Together.

## OUR GLOBAL IMPACT



27 Volunteering & Donation Initiatives



1,450 Volunteers Participated



4,500 Volunteering Hours Committed



AED 1,377,000 Employee Donations



24 Partnerships

## PILLARS OF IMPACT



Strengthening Community Development



Championing Sustainability



Empowering Youth & Education



Celebrating Arts & Culture



Promoting Sports & Wellness

OUR JOURNEY

# 2018

Launched Mubadala's Employee Volunteering Program



Toy Making:

40 VOLUNTEERS  
160 HOURS CRAFTING TOYS FOR REFUGEE CHILDREN



**Special Olympics:**  
Supported 21,300 volunteers at World Games, Abu Dhabi



**Magic Wigs:**  
50 volunteers dedicated 200 hours crafting wigs for children with cancer

# 2019



Make-A-Wish.

**50 Years 50 Wishes:**  
Together, we made wishes come true



**30 Days of Gratitude:**  
Donated AED 136,000 to Support Staff and Red Crescent's Iftar drive

# 2021



**Covid-19 Relief:**  
Volunteers donated AED 404,000 for Support Staff and the Ma'an's Food Basket

Started celebrating International Day of Charity with **Mubadala Gives Back**



# 2020



# 2022



Refreshed our volunteering brand and extended our volunteering policy to the global offices



**Partnered with Emirates Nature-WWF:**  
215 volunteers, 750 hours in 3 environmental activities



**Launched First Charity Fair** in partnership with 15 NGOs

# 2023



Operation Smile

**Operation Smile UAE:**  
Initiated our international volunteering missions

# THE MUBADALA FOUNDATION



The Mubadala Foundation supports humanitarian, social, and educational activities, delivering positive outcomes in communities.

Its mission is to support and empower humanitarian, social, and educational efforts that drive positive outcomes in the communities in which Mubadala invests.

We partner with the Mohamed bin Zayed Conservation Fund, Emirates Nature-WWF, SailGP and various research, educational, and development organizations.

## EMIRATES NATURE-WWF

The Mubadala Foundation is proud to support Emirates Nature-WWF through joint initiatives striving towards a sustainable UAE.

Together, we envision a thriving society and economy with scaled-up and broad efforts paving the path toward a greener tomorrow.

The Mubadala Foundation is part of the Leaders of Change partner program with Emirates Nature-WWF, the UAE's biggest 'movement for nature' community and an advocate for volunteering in nature with loved ones.

## MOHAMED BIN ZAYED SPECIES CONSERVATION FUND

The Mubadala Foundation supports the Mohammed bin Zayed Species Conservation Fund in its global conservation efforts.

This partnership focuses on protecting endangered flora and fauna in biodiversity hotspots, particularly in countries where Mubadala has investments. The fund's mission is to elevate the importance of species in the conservation debate by supporting grassroots initiatives, and assisting the conservation of species in their natural habitats.

Our aim is to increase awareness, rekindle interest among young people in natural sciences, and attract further contributions to species conservation worldwide.

## OTHER LOCAL PARTNERSHIPS

Through the Mubadala Foundation and in line with its strategy, we have partnered with a number of local institutions to support and create opportunities for future generations while leaving a positive lasting impact on the community.

We partnered with Department of Culture and Tourism across several projects activated at Louvre Abu Dhabi, which included the integration of the Mansour cartoon character.

Through a partnership with the New York University Abu Dhabi (NYUAD), we have invested in research and development collaboration, faculty and student recruitment and student outreach programs to build future talent and support educators.

To promote inclusion, tolerance and unity, we partnered with Khadamat, a semi-government company that provides facilities management services for public and private facilities in the region, on a restoration and volunteering project for the School of Tolerance. As part of our ongoing commitment to support

the Year of Sustainability and the UAE's preparedness for COP28, we extended or ongoing partnership with the Anwar Gargash Diplomacy Academy to launch a new UAE climate think tank called, the Center of Climate Change Diplomacy.

During COP28, NYUAD launched 'ACCESS,' a partnership between Tamkeen, Professor John Burt, and a local Emirati researcher on the protection of coral reefs in the UAE and globally.

# PERFORMANCE 2023



"We continued to seek value by investing selectively across diverse sectors, and regions of the world with strong growth potential."

**Carlos Obeid**

Chief Financial Officer



## Investing in Our Future

In 2023, global markets experienced significant turbulence across various sectors and industries, driven primarily by inflationary pressures, rising interest rates, geopolitical tensions, and supply chain disruptions. Despite these challenges, our multi-year portfolio returns continued to outperform their respective benchmarks.

Our Assets Under Management (AUM) across the group grew to AED 1.1 trillion, up from AED 1.0 trillion in 2022, and our five-year rate of return stood at 10.3 percent, up from 8.5 percent in 2022. These results reflect how our evolved strategy is paying off as we expected.

Against the backdrop of global market volatility, we continued to seek value by investing selectively across diverse sectors, and regions of the world with strong growth potential, particularly in Asia, where over 20 percent of our deployments were focused. We also continued our investment focus in North America, which represents our largest market by AUM.

In line with our investment strategy, we executed investments totalling AED 89 billion in key sectors such as Artificial Intelligence, Technology, Life Sciences, Clean Energy, Infrastructure, Private Credit, amongst other sectors that are shaping the future. Notwithstanding the market challenges, we capitalized on opportunities to monetize select investments, in line with our monetization and capital recycling strategy. Although the monetization rate was lower compared to previous years, we successfully generated total proceeds of AED 99 billion for the year.

Select examples of notable transactions include:

- Launch of M42, a first-of-its-kind, tech-enabled, integrated healthcare company created through the coming together of G42 Healthcare and Mubadala Health
- Additional investment in CityFibre, the UK's largest independent Full Fibre platform and only carrier-neutral operator
- Monetization of our legacy Petroleum & Petrochemicals holding in OMV
- Monetization of our holding in UniCredit
- Monetization of our holding in Abu Dhabi Islamic Bank (ADIB)

Our Credit Investments unit continued its strong performance, witnessing a notable increase in AUM, driven by the establishment of new and additional strategic partnerships to further bolster our global presence in the Private Credit business.

Complementary to our growth in AUM, 2023 marked a prudent year of debt raising where we successfully executed almost AED 30 billion of funding commitments obtained across a diverse range of products, that were strategically issued to refinance maturing debt and to also support Mubadala's investment activities in line with our exciting growth plans. We successfully executed our inaugural Green Bond in October following the establishment of our Green Financing framework to commemorate Mubadala's decision to align with the UAE's commitment to Net-Zero by 2050, during COP28. Despite the record debt raising, we continue to maintain a relatively interest rate immune debt portfolio with a conservative gearing ratio of 10.3 percent and a strong liquidity position to navigate through this cycle.

While the dynamic global landscape may present unforeseen challenges, the experience, expertise and talent of our team will remain key to delivering on our strategy and mandate to generate long term sustainable financial returns.



# FINANCIAL OVERVIEW

## An Agile Long-term Strategy

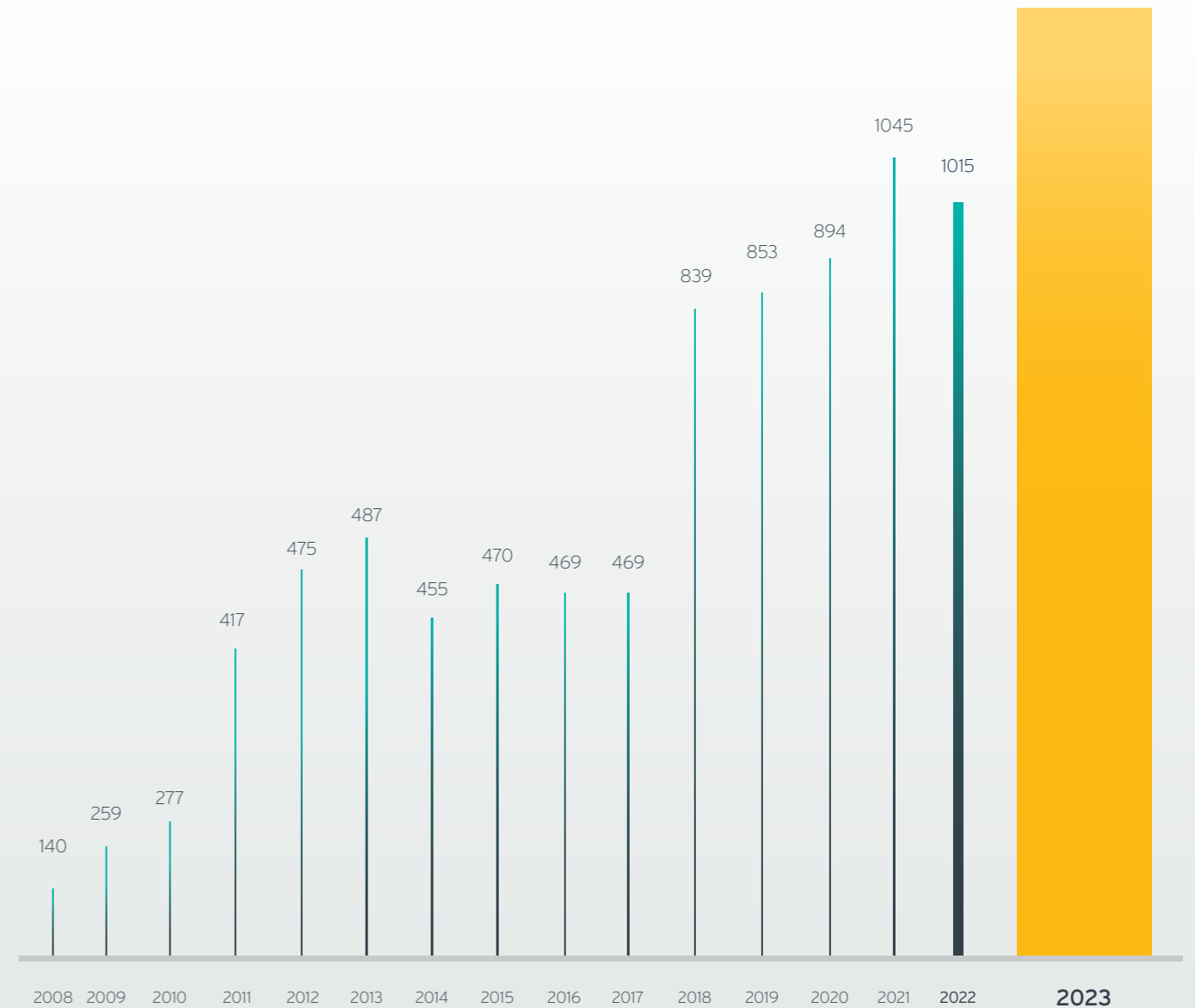
Our performance is anchored on executing our prudent strategy, strong internal capabilities, and robust corporate governance. We take pride in our credit rating, which is the highest in the region, a testament to our financial robustness, credibility, and strong ties with our sole shareholder, the Government of Abu Dhabi. We also uphold best practices of transparency and accountability by publishing IFRS audited financial statements.

## ASSETS UNDER MANAGEMENT

AED **1,111** BN

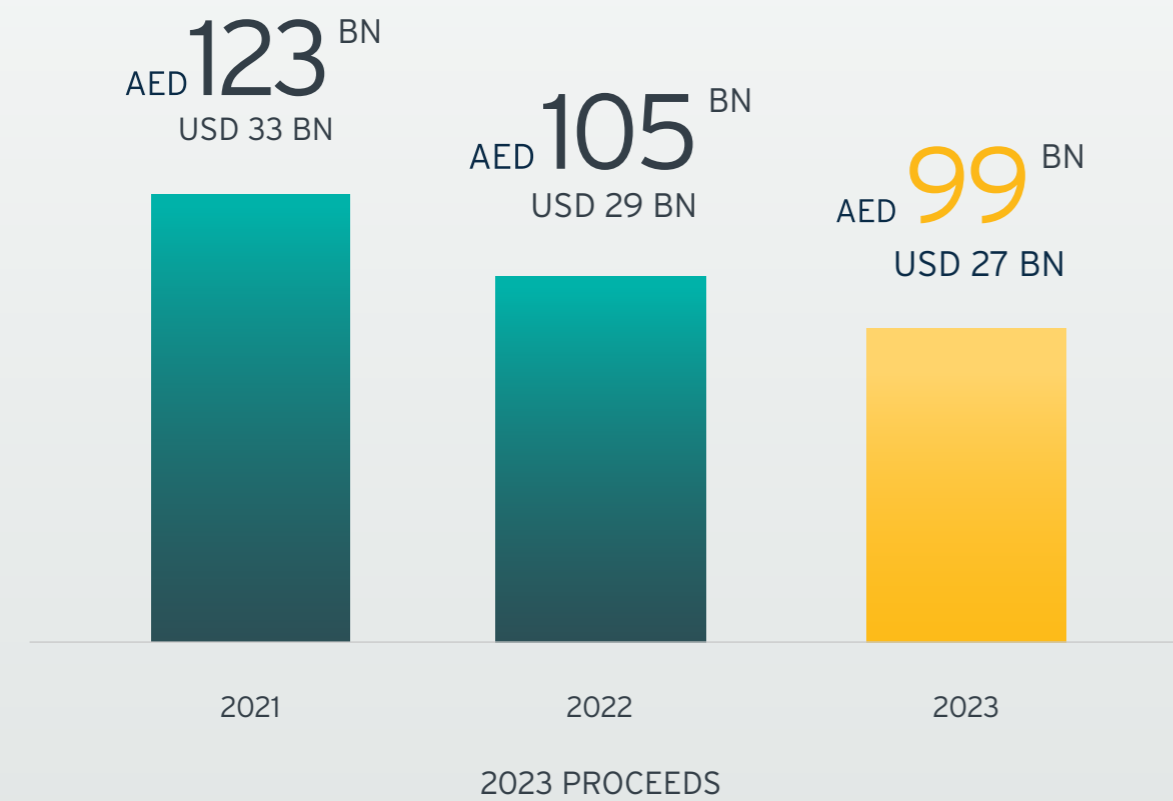
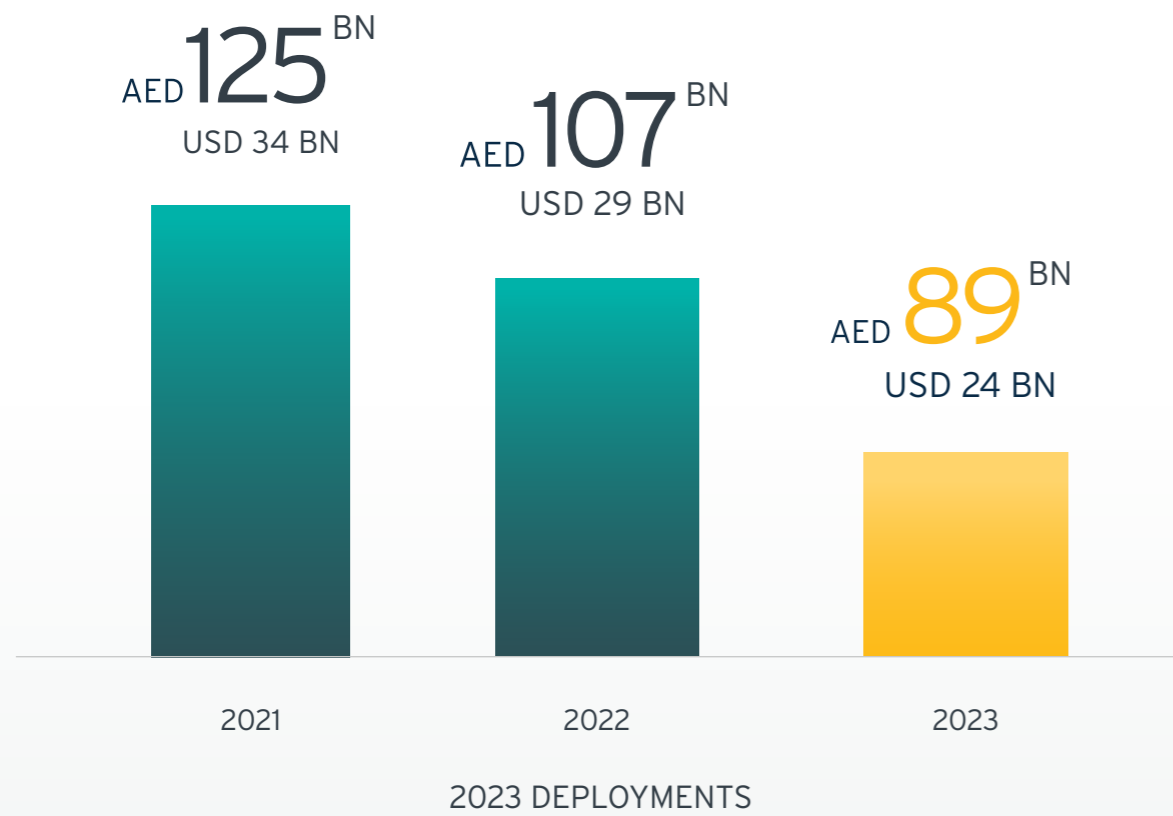
USD 302 BN

AED  
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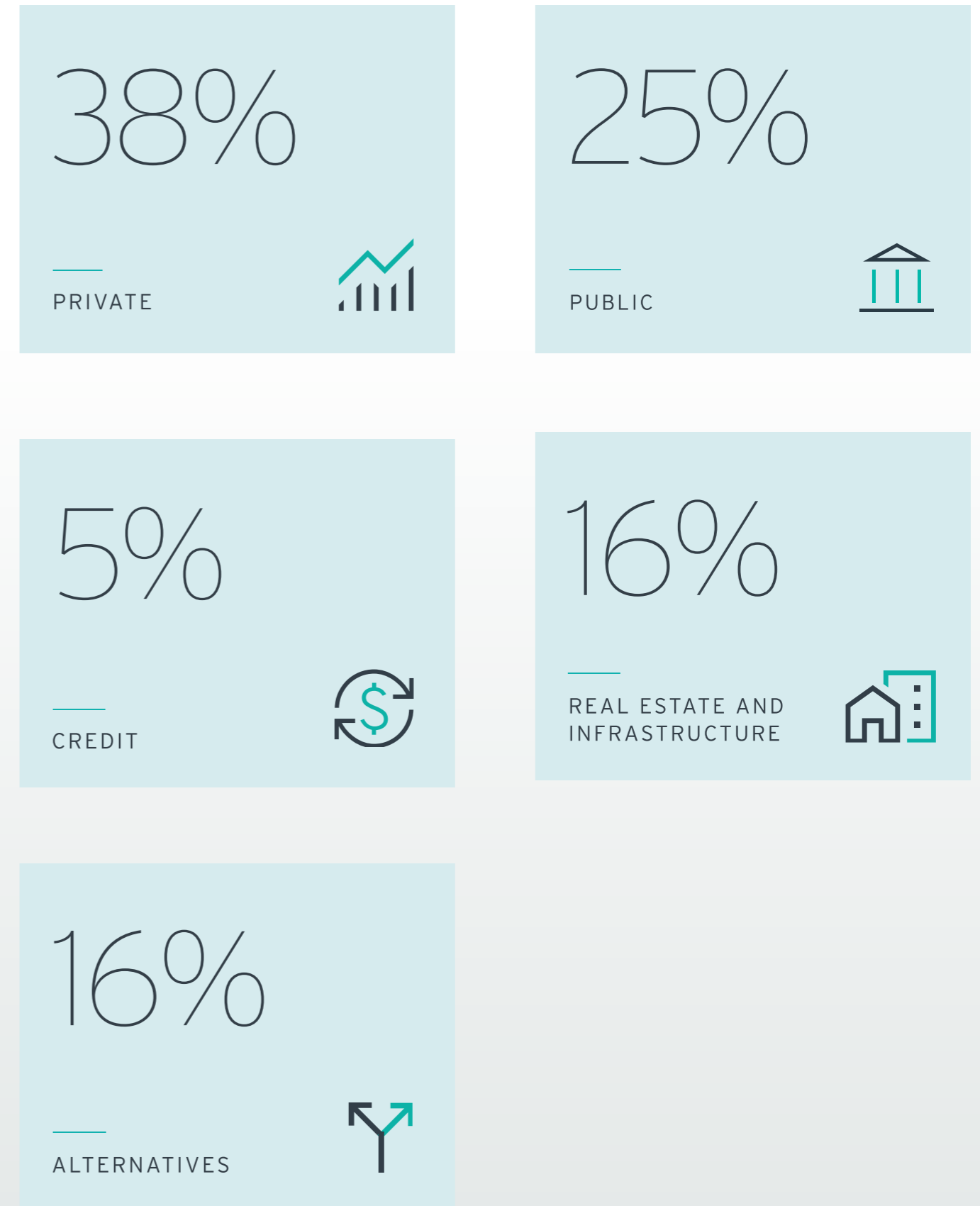


\*Note: 2008-2017 includes combined Mubadala Development Company and IPIC

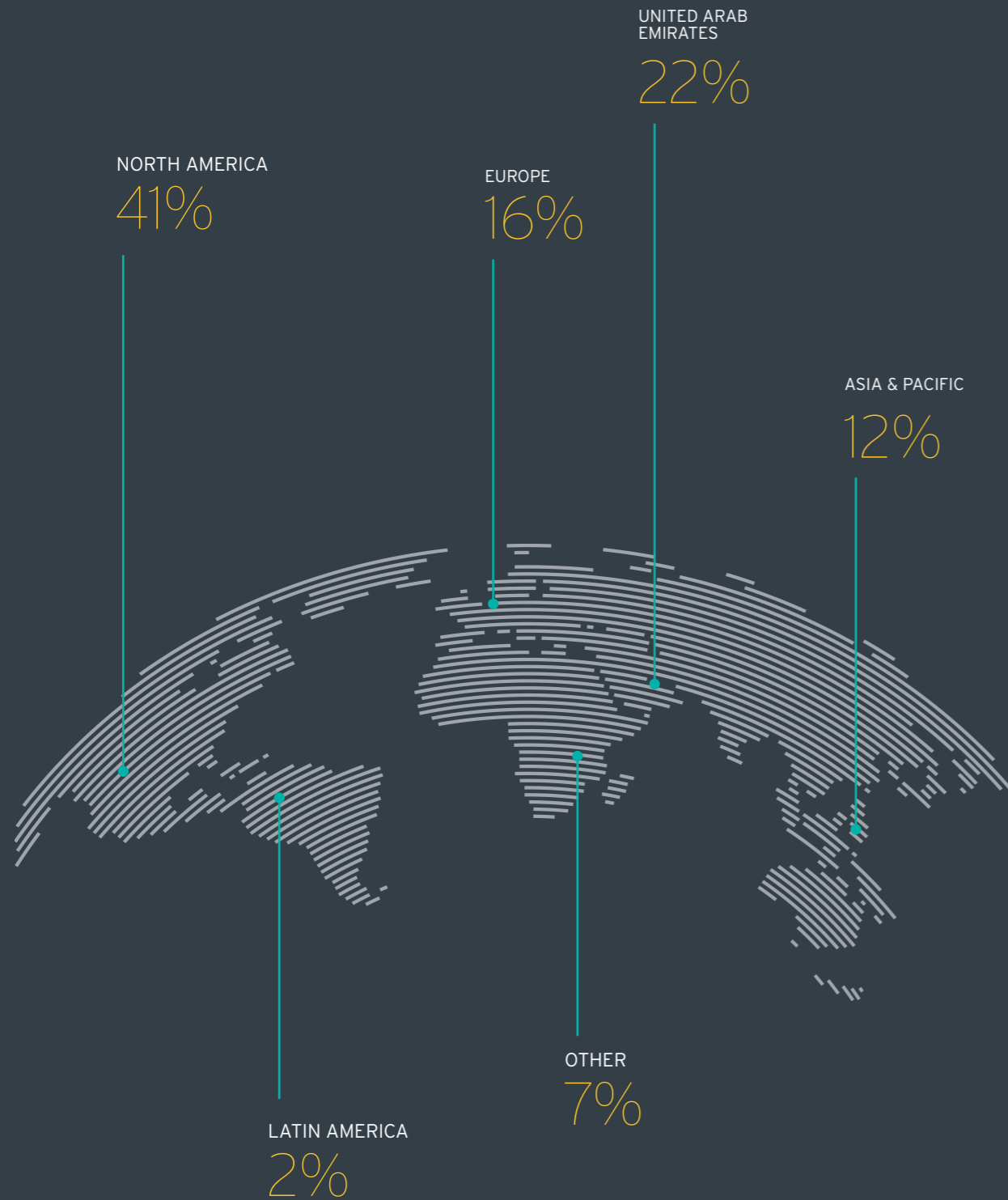
## DEPLOYMENTS & PROCEEDS



## PORTFOLIO BY ASSET CLASS



## PORTFOLIO BY GEOGRAPHY



## CREDIT RATINGS

\*Mamoura Diversified Global Holding PJSC, a wholly-owned entity of Mubadala

The issuing entity's Credit ratings are a reflection of the continuing support offered by its sole shareholder, the Government of Abu Dhabi, and are aligned accordingly.

Credit Ratings: Short-term\*

P-1/A-1+/F1+

Moody's/Standard & Poor's/Fitch

\*Issuing entity - Mamoura Diversified Global Holding PJSC.

Credit Ratings: Long-term\*

Aa2/AA/AA

Moody's/Standard & Poor's/Fitch

\*Issuing entity - Mamoura Diversified Global Holding PJSC.

# KEY INVESTMENT HIGHLIGHTS



## Dental Care Alliance

Mubadala invested in Dental Care Alliance (DCA), a leading US-based dental services organization with approximately 390 allied practices.



## Truist Insurance Holdings

Mubadala Direct Investments, Stone Point Capital, and GIC invested in Truist Insurance Holdings.

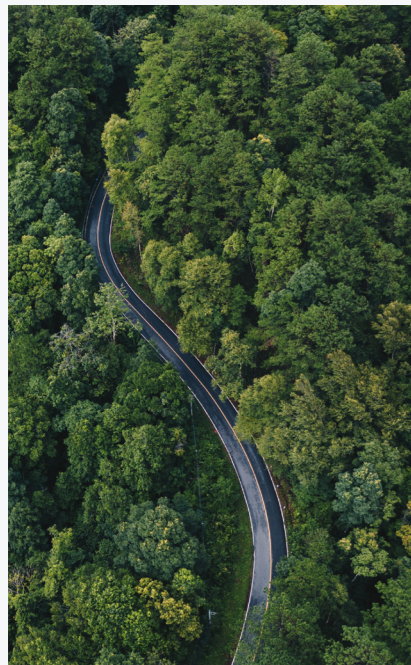


## Nova Chemicals

Roger Kearns appointed as new CEO of Nova Chemicals to accelerate implementation of the company's vision to become North America's leading sustainable polyethylene producer.

## GlobalFoundries

GlobalFoundries announced the official opening of USD 4 billion expansion fabrication plant in Singapore.



## Cepsa

Cepsa partnered with Yara Clean Ammonia to establish first green hydrogen maritime corridor between southern and northern Europe.

## Osstem Implant

Mubadala ventured into dental technology with strategic investment in Osstem Implant, a key player in South Korea's dental implant industry.



## PCI Pharma

PCI Pharma broke ground on the largest outsourced pharma site in North America.

## Cepsa

Cepsa and C2X set up joint project to develop the largest green methanol plant in Europe.



## CoolIT

Energy and Sustainability unit invests alongside KKR in CoolIT Systems, a leading provider of scalable liquid cooling solutions for the world's most demanding computing environments.

### 3650 REIT

Mubadala invested USD 26 million in 3650 REIT, allocated USD 50 million to its US Logistics platform, USD 100 million to its US Special Situations strategy, and committed an additional Euro 110 million to its European Credit platform.



### ADIB

Mubadala sold a 7.6 percent stake in Abu Dhabi Islamic Bank, and maintains its position as one of the largest investors in the UAE banking sector.



### Aldar & Ares

Mubadala, Aldar and Ares establish a new strategic partnership to jointly invest USD 1 billion in European private real estate credit.



### Aldar

Mubadala and Aldar develop new commercial assets on Al Maryah island supporting the long-term development of Abu Dhabi's real estate sector and thriving international financial center.

### Aligned

Mubadala invested in Aligned, a data center platform focused on hyperscale operations in the United States, Canada, and Latin America.



### Alpha Dhabi

Mubadala and Alpha Dhabi formed a joint venture to co-invest in credit opportunities, with the aim to collectively deploy up to AED 9 billion over the next five years, leveraging Mubadala's long-term and strategic partnership with Apollo.

## Ares Management Corporation

Mubadala and Ares formed a joint venture to invest in global credit secondaries opportunities. The joint venture, anchored by Mubadala, will initially aim to deploy approximately USD 1 billion.



## Beijing Office Opening

The Beijing office was officially inaugurated in September, reinforcing Mubadala's long-term commitment to the wider Asian market.

## Bicycle Capital

The Ventures & Growth team expanded its network in Latin America and anchored Bicycle Capital's first fund, which aims to invest in high-potential start-ups across the continent.



## Blue Owl

Mubadala committed USD 1 Billion to Blue Owl Capital's technology lending strategy.

## CBC Group & APG

Mubadala's China Investment Program closed USD 320 million deal with CBC Group and APG for China Life Sciences Real Estate Platform.

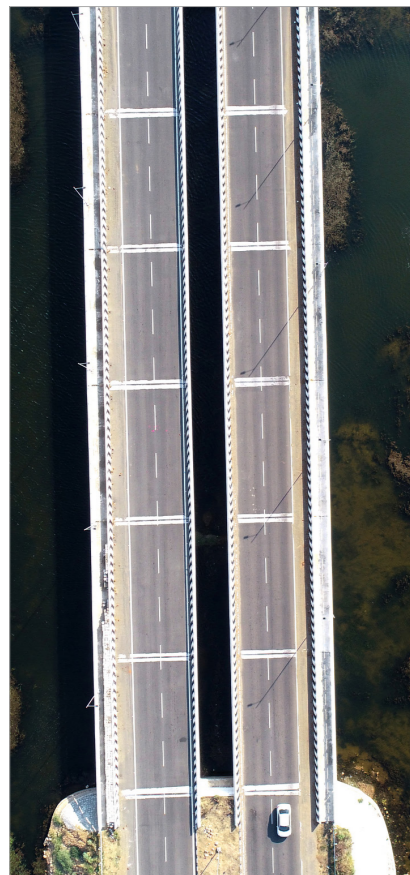


## CityFibre

Mubadala increases shareholding in CityFibre to 23.8 percent by deploying the second tranche of £300 million of its total commitment.

### Cube Highways

Mubadala closed a USD 270 million investment in Cube Highways with a portfolio of 25 toll roads across India.



### Fortress

Mubadala, through Mubadala Capital and alongside Fortress Investment Group's management, entered into definitive agreements to acquire 90 percent of the equity of Fortress from SoftBank.



### GlobalConnect

Mubadala made an Investment in GlobalConnect, a critical fibre infrastructure provider operating in Northern Europe.



### M42

The creation of M42 through the merger of G42 Healthcare and Mubadala Health aims to revolutionize the healthcare industry by delivering world-class, tech-enabled, patient-centric care.



### Mubadala Capital

Mubadala Capital closed its second successful fund in Brazil with over USD 710 million of commitments.



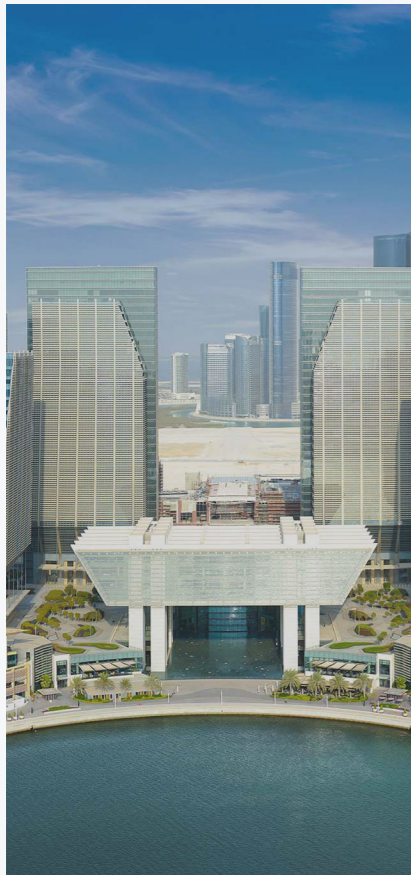
### Mubadala Energy

Mubadala Energy discovered a major deep sea gas reserve in Indonesia's South Andaman Block.



## Mubadala Capital Solutions

Mubadala Capital launched a new business, Mubadala Capital Solutions, which offers bespoke solutions to investors, with a particular focus on institutional investors and family offices.



## Proprium

In 2023, Mubadala, alongside Proprium and Manulife, established a Japanese multi-family residential venture to acquire assets that deliver affordable and high-quality living spaces.

## Resilience

Mubadala and Resilience partner to develop and advance biopharma manufacturing in the UAE.

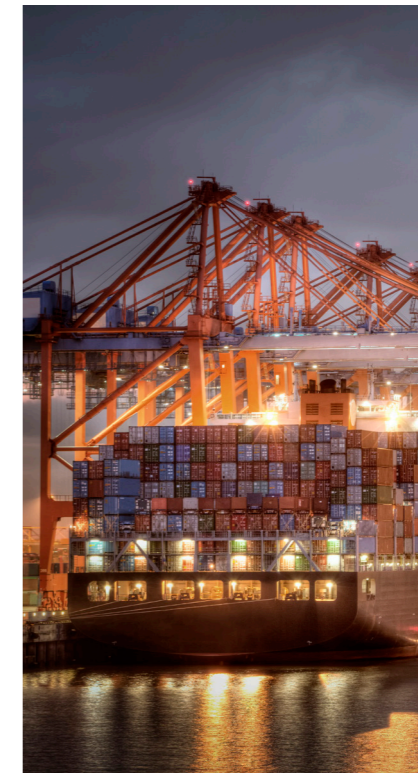


## Rio Grande LNG

Mubadala closed its largest investment to date, a USD 500 million commitment in the equity of Rio Grande LNG.

## Yahsat & Bayanat

Yahsat and Bayanat merge to create USD 4.1 billion space company leading to the Middle East and North Africa region's first AI-powered space technology company.



## Zenobē

Mubadala committed USD 106 million commitment to Zenobē, a global player in fleet electrification infrastructure and battery storage solutions.

RESEARCH STUDIES

# ACCELERATING TOMORROW.

How investment in emerging technology is transforming our world for the better.

As the world strives to forge a more sustainable future, emerging technologies carry immense problem-solving potential. And because innovation requires investment, venture capitalists and other financial leaders will play a crucial role in the push for positive change.

Investments in emerging technologies that boost sustainability and address climate change are seeing rapid growth. Global climate-tech investments rose to USD 16.6 billion in Q3 2023, according to Bloomberg NEF, which noted that the strongest investment growth “took place in companies focused on decarbonizing heavy industry.

In 2023 Mubadala commissioned Bloomberg Media to survey global investors and venture capital leaders to reveal which emerging technologies are believed to be most important to achieving a sustainable future, and to understand how investment is accelerating the development of these crucial technologies.

Which sectors do these decision-makers view as most important to achieving sustainability goals? What are the motivations behind their investments? What opportunities and obstacles do they envision?



# WILL CHANGE THE WAY WE WORK AND LIVE

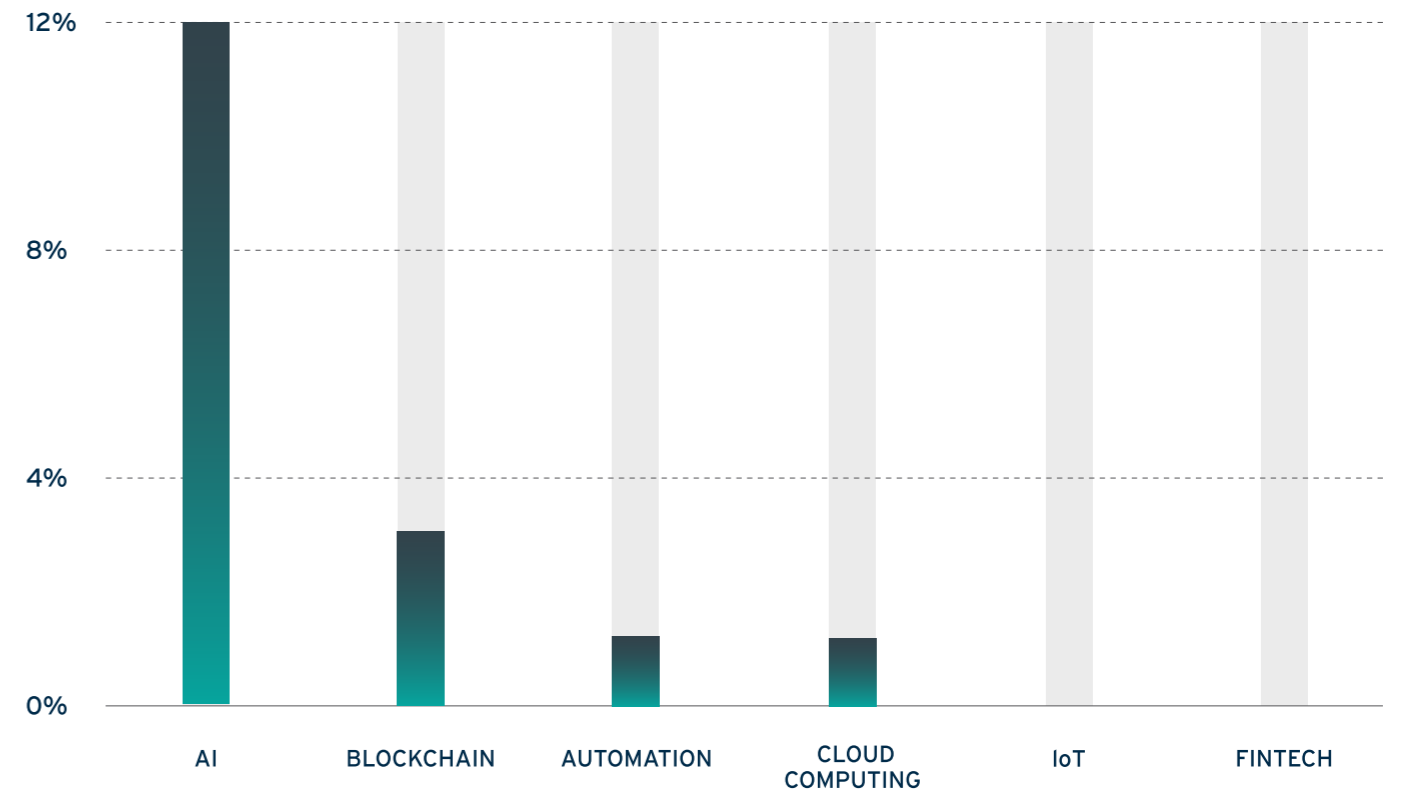
Across global markets, venture capitalists and investors see investment playing a central role in supporting digital transformation in the years ahead.

However, one technology is front of mind for these investors due to its ability to accelerate digital transformation: artificial intelligence. In our study, investors saw artificial intelligence as four times more important to digital transformation than blockchain

and nearly five times more important than automation and cloud computing.

That excitement is apparent in the investments that they're making. According to Pitch Book data compiled for Bloomberg, the value of funding for AI companies climbed 27 percent globally, to USD 17.9 billion in the third quarter of 2023 compared to the year before.

## TECHNOLOGIES SEEN AS KEY TO ACCELERATING DIGITAL TRANSFORMATION



## WHAT INVESTORS AND VENTURE CAPITAL LEADERS ARE SAYING



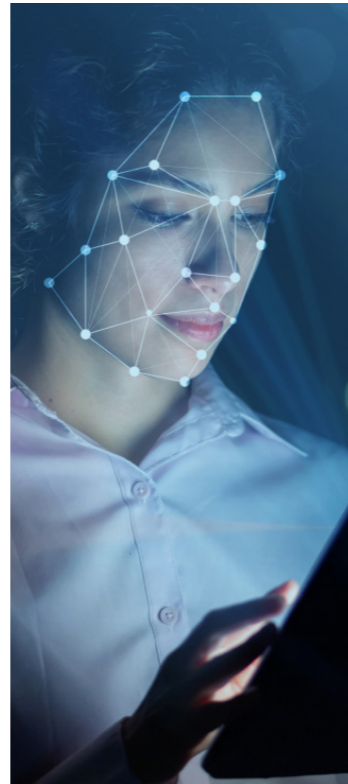
### Hedge Fund Investor

“When we put money into things like AI and automation, we can change the way many industries work. This makes them more efficient and lets them do more in less time.”



### Private Equity Investors

“The application of artificial intelligence and Big Data analytics in sustainable development will be a hot investment area.”



### Venture Capital Leader

“Artificial intelligence technology investments can change our way of life and work for the betterment of society.”

## RENEWABLES AND ENERGY STORAGE

# WILL LEAD THE WAY TO A MORE SUSTAINABLE FUTURE

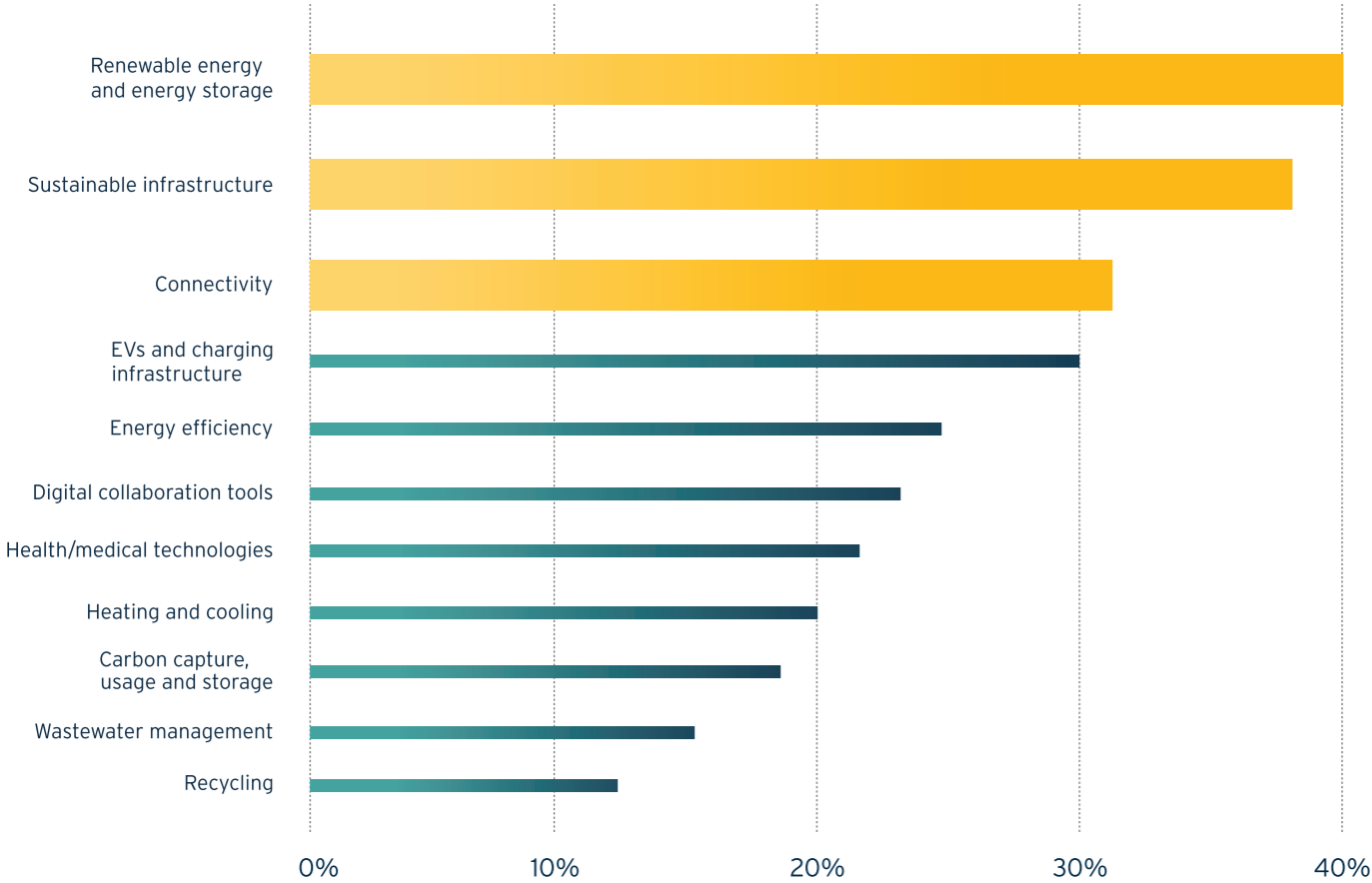
Investment opportunities in climate technology have grown beyond solar panels and batteries to include food and agriculture, the built environment and heavy industry.

However, investors and venture capital leaders still see renewables and energy storage as the emerging technologies

that are most important to supporting a sustainable future, outpacing sustainable infrastructure, connectivity and EVs in our survey.



# EMERGING TECHNOLOGIES THAT ARE MOST IMPORTANT TO ACHIEVING A SUSTAINABLE FUTURE

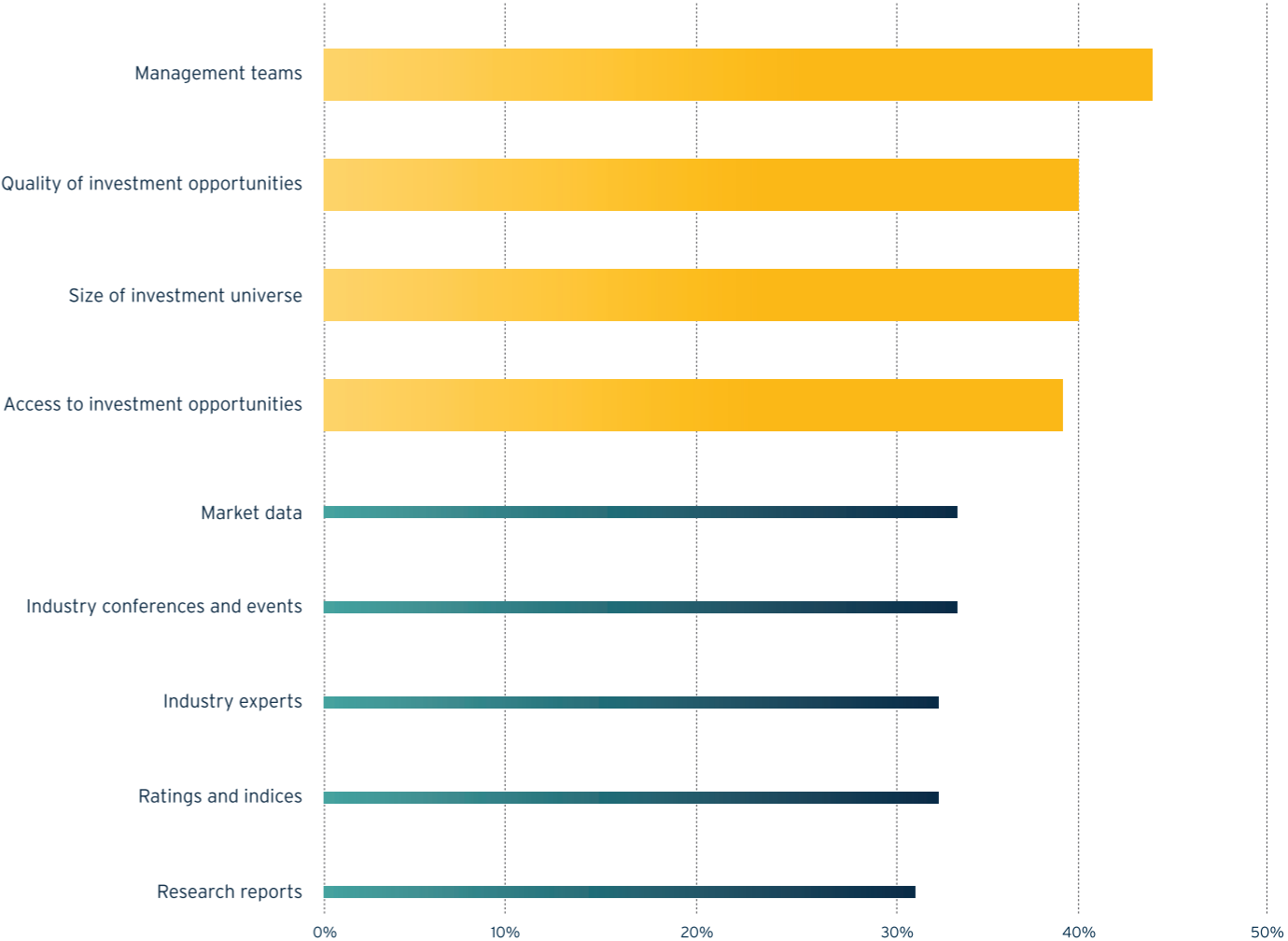


These same two technologies—renewables and energy storage—are also seen as the ones that will attract the most investment in 2030.

That view is consistent with Bloomberg NEF, which says that for the world to be on track for net zero, about \$1.2 trillion needs to be invested in wind and solar every year between 2023 and 2030.

But perhaps what’s most interesting is that technology has not replaced the human factor when these investors are deciding which companies to invest in. Even in this era of data and analytics, our survey reveals that investors and venture capital leaders rely first and foremost on the company management team when making an investment decision.

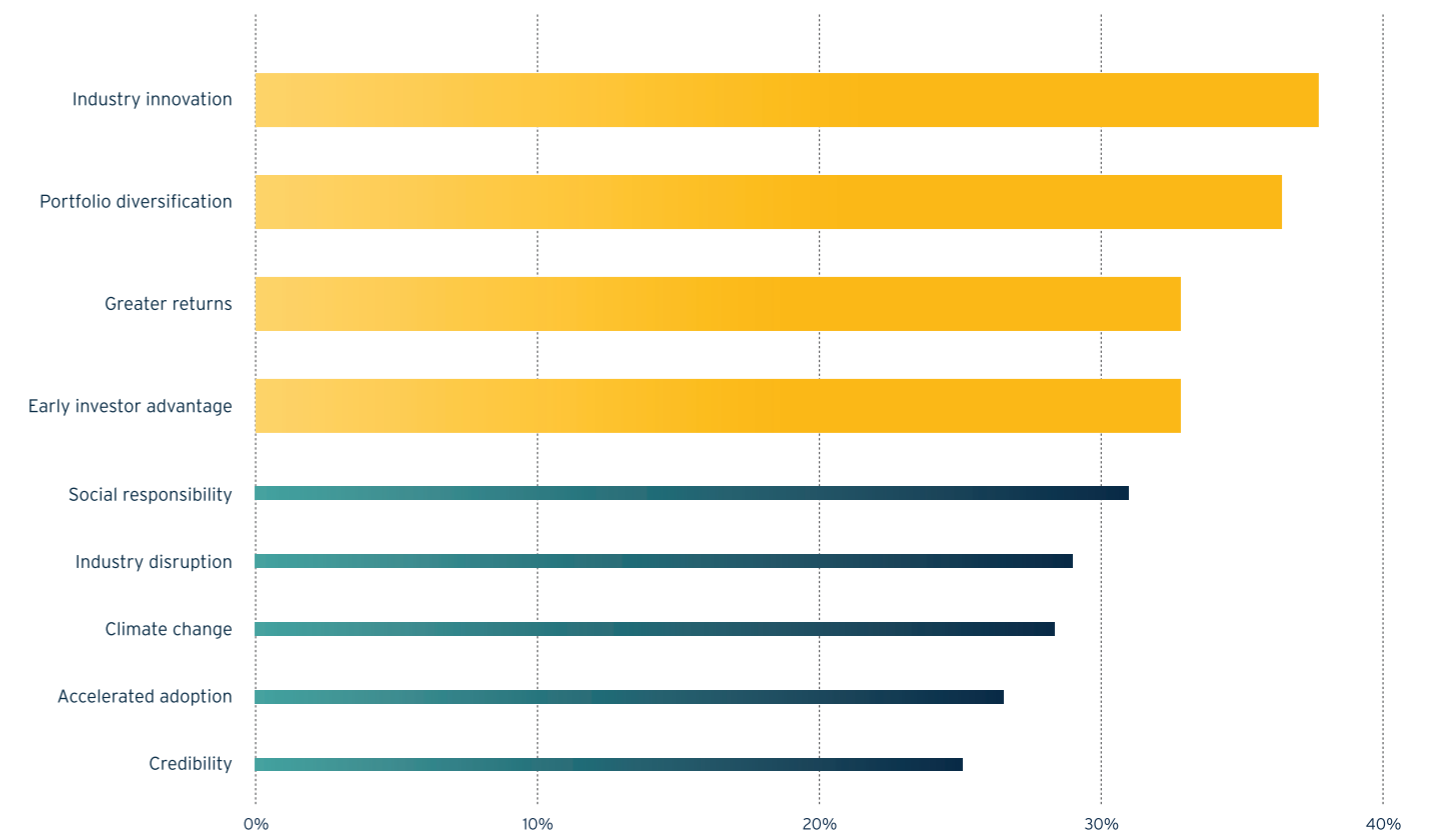
# WHAT TOOLS AND/OR INFORMATION DO YOU USE TO MAKE DECISIONS ABOUT INVESTING IN EMERGING TECHNOLOGIES?



# DRIVE INVESTMENT IN EMERGING TECHNOLOGIES

The potential gains from emerging technologies are massive. According to Bloomberg Intelligence, the generative AI market could reach USD 1.3 trillion in 2032, and it is a dominant catalyst of positive estimate revisions and multiple expansion for most tech segments, including hardware, software and internet.

## TOP MOTIVATIONS FOR INVESTING IN EMERGING TECHNOLOGIES



The survey reveals that investment in emerging technologies is driven by diverse motivations, including innovation, diversification, greater returns and first-mover advantage.

Overall, climate change lags behind these factors as drivers of investment in emerging technology, but not everywhere. In the US and the UK, investors and venture capital leaders list climate change as a Top 3 motivation for investing in emerging technologies.

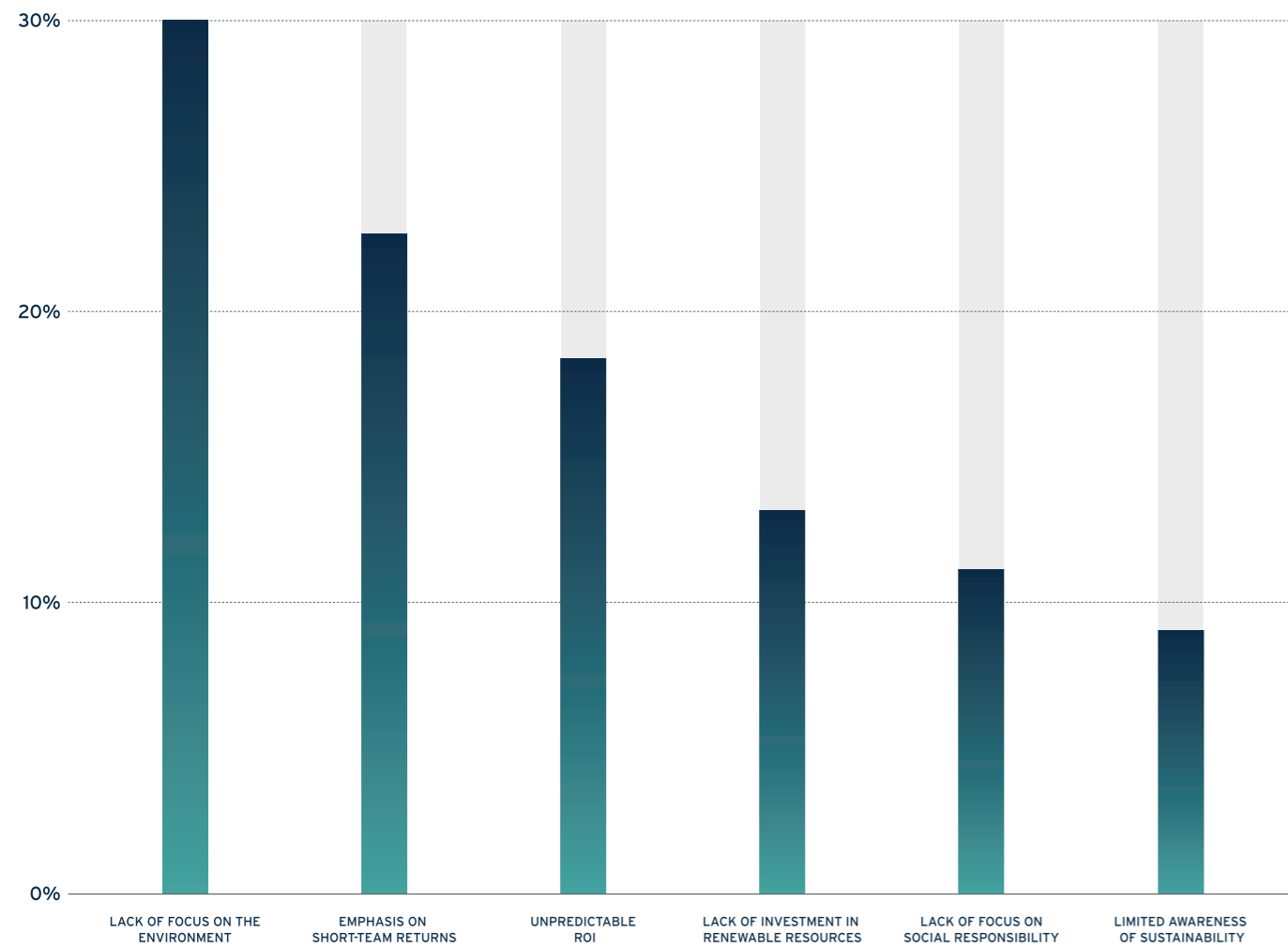
One reason for this gap in the investment landscape around climate change could be the fear of the unknown. In our survey, investors and venture capital leaders both agree that a

lack of defined standards and quality control are the biggest barriers to investment in emerging technologies.

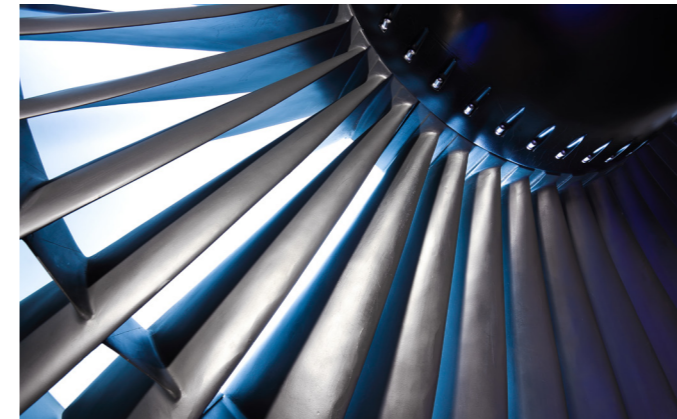
These unknowns may be driving investors toward seeking short-term returns from their emerging technology investments and discouraging them from adopting the long-term vision necessary to finance the energy transition.

That's where the public sector comes in. Whether through policies or incentives, most respondents see governments playing a primary role in achieving a sustainable future.

## GAPS IN THE CURRENT INVESTMENT LANDSCAPE THAT COULD PREVENT THE ACHIEVEMENT OF A SUSTAINABLE FUTURE.



## WHAT INVESTORS AND VENTURE CAPITAL LEADERS ARE SAYING



### Hedge Fund Investor

"Sustainable technologies face high risks and uncertainties at the early development stage and investors will be very careful about investing in them."

### Venture Capital Leader

"Investment often favors established tech over innovative sustainable solutions."



### Venture Capital Leader

"Right now, the investment landscape often focuses too much on quick profits and certain technologies, rather than evenly supporting long-term sustainability across different areas."



# RISE TO THE CHALLENGE OF CLIMATE CHANGE?

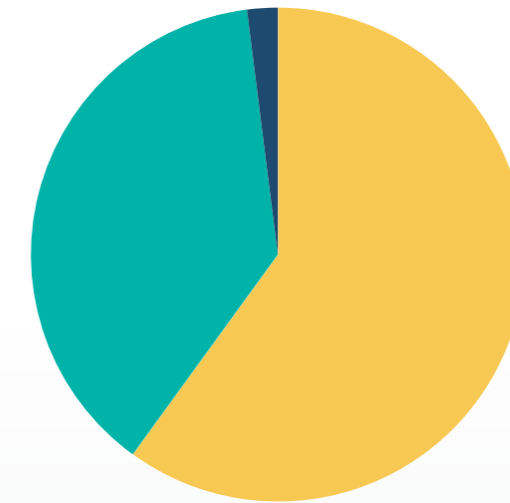
The amount of investment needed to achieve a net-zero world by 2050 is staggering. BloombergNEF estimates it could cost USD 196 trillion in investments for the world to reach net-zero carbon emissions by 2050, as many countries have pledged to do, to avoid catastrophic global warming.

In addition, BloombergNEF suggests annual green investments will need to nearly triple to USD 6.9 trillion by 2030 if we are to have any hope of hitting net zero by 2050. This transition means that consumers, businesses and government will need to swap gas-powered vehicles

for EVs, and replace fossil fuel-powered energy with renewables like wind and solar, including new grids to connect them.

Emerging technologies can provide a powerful engine to drive the world toward this sustainable future. Our survey reveals a strong consensus among investors and venture capital leaders that sustainable goals are within reach and that technology will play the leading role in achieving them.

AGREEMENT THAT "TECHNOLOGY WILL PLAY THE LEAD ROLE IN THE WORLD ACHIEVING A SUSTAINABLE FUTURE"



● 60% Completely agree

● 38% Somewhat agree

● 2% Neither agree nor disagree

**95%**  
of respondents agree



# THE MEGATREND EFFECT

If emerging technologies really hold the promise of a sustainable tomorrow, the key question is, how? One reason for optimism is the way emerging technologies intersect with megatrends, the powerful and transformative global forces shaping our future.

Investors must take a holistic view of these megatrends to understand how they interconnect with each other and how they will be impacted by emerging technologies to reveal risks and opportunities.

## EMERGING TECHNOLOGIES



Connectivity & Digital  
Collaboration Tools



Renewable Energy  
And Energy Storage



Health / Medical  
Technologies



Sustainable  
Infrastructure

## MEGATRENDS

### Digital Technologies

The widespread use of technologies involving the representation, storage, and processing of information in bits.

### Climate Change

The human-induced warming of the atmosphere resulting in environmental degradation.

### Inequalities

The differences between the levels of health, wealth and opportunity across groups of people.

### Demographic Shift

The overall slowing of population growth resulting in population aging, e.g., declining fertility and increasing life expectancy.

### Urbanization

The increasing concentration of the world's population in cities.

# INVESTMENTS IN TECHNOLOGY

## GlobalFoundries Opens Fab 7H in Singapore

GlobalFoundries opened its USD 4 billion expansion fabrication plant in Singapore in September 2023. The 23,000 sqm fab - about twice the area of a Manhattan city block - is set to create 1,000 high-value jobs in the country, including roles for equipment technicians, process technicians and engineers.

The new facility boosts GlobalFoundries' global manufacturing footprint and reinforces the company's ability to deliver product security and flexibility to customers across its manufacturing sites on three continents.

As Singapore's most advanced semiconductor facility to date, the fab is set to produce an additional 450,000 wafers (300mm) annually, raising GlobalFoundries Singapore's overall capacity to approximately 1.5 million wafers (300mm) per year. The site will be instrumental in ensuring that GlobalFoundries has the capacity needed by its customers as they seek to strengthen their supply chains.

The Fab 7H has been awarded Green Mark Gold status by Singapore's Building and Construction Authority for its recycling technologies and overall energy efficiency.



# INVESTMENTS IN AI

## M42 a Tech-Enabled Health Powerhouse

In 2023, G42 and Mubadala announced the coming together of G42 Healthcare and Mubadala Health to create a first-of-its-kind, global tech-enabled health powerhouse - M42.

With the vision of impactfully disrupting the global health landscape, M42 combines advanced technologies, such as genomics and AI, with state-of-the-art healthcare facilities, including Cleveland Clinic Abu Dhabi and Imperial College London Diabetes Centre, to deliver the highest level of personalized, precise and preventive health solutions. .

In 2023, M42 acquired the world's second-largest kidney care service provider, Diaverum. The acquisition expanded M42's global geographic footprint, enabling the company

to introduce selected healthcare services and advanced technology solutions in new markets.

Today, M42 has over 20,000 employees across 450 facilities in 26 countries. As a global tech-enabled health company, M42 continues to operate at the forefront of medical advancement, transforming the way care is delivered by bridging the gap between the latest technology advancements and the clinical outcomes patients receive.

The formation of M42 is a significant and positive development for the future of global health and a major milestone for Abu Dhabi, which continues to advance its status as a leader in the global life sciences.

## Bayanat & Yahsat Merger

Bayanat and Yahsat merged to create Space42, valued at USD 4.1bn marking the start of the MENA region's first AI-powered space technology company.

This strategic merger is set to enhance Earth observation capabilities by expanding the satellite fleet, aligning with the UAE's current position as the Arab world's second-largest economy and the leader in space sector investment size and diversity.

With the space sector's growth projected to surge by 41 percent over the next five years to reach USD 546 billion, Space42 stands at the forefront of tapping into this potential. This initiative is not just about broadening technological horizons; it's a compelling opportunity to amplify value creation for shareholders by utilizing synergies and strategic consolidation to create a technologically advanced champion in the global space economy.

The merger is a testament to the UAE's ambition to enhance its space exploration capabilities and solidify its standing on the global stage. This move also contributes to the nation's diversification efforts and reinforces its pioneering status in the space industry.



# RESPONSIBLE INVESTING

Mubadala has been investing to deliver financial returns and create value for future generations since our inception. Responsible investing has been, and continues to be, at the core of how we do business.



# THE YEAR OF SUSTAINABILITY AND COP28

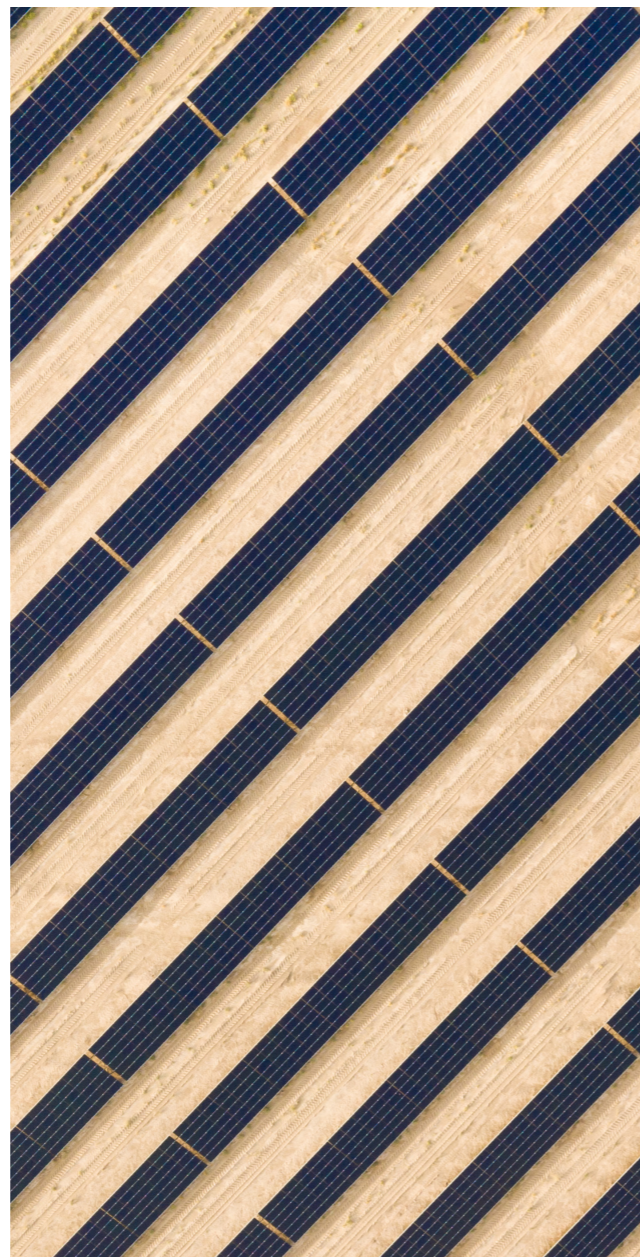
A testament to the UAE's focus on climate change, 2023 was named the Year of Sustainability.

The UAE was the first Gulf country to ratify the Paris Agreement, the first to commit to Net Zero by 2050 and is a leading global investor in clean energy.

The highlight of the Year of Sustainability came in December when the UAE hosted crucial climate negotiations at COP28. It resulted in the landmark UAE Consensus in which, for the first time, all countries of the world agreed to transition away from fossil fuels. Mubadala contributed to COP28 as a Showcase Participant in line with its commitment to supporting urgent climate action.

Mubadala believes climate change is an existential risk for the planet with the potential for a significant impact on the communities in which we invest and the performance of our portfolio. Our strongly held conviction is that integrating climate considerations into our investment decisions makes business sense. One of Mubadala's core objectives is to find solutions to the world's biggest challenges. We are investing in advancements across the world and deploying capital for the long term so that, collectively with our partners, we can deliver change.

We believe that the biggest impact we can have is to mobilize and align our capital to help progress a net zero future. These actions aim to empower our peers, people and communities to enable the transition to a low carbon economy.



# RESPONSIBLE INVESTING APPROACH

As a sovereign wealth fund, Mubadala's mandate is to deliver sustainable financial returns and create opportunities for future generations.

We believe that the integration of environmental, social and governance (ESG) factors are fundamentally linked to our ability to protect and create long-term value at both the asset and portfolio levels. As a result, Responsible Investing plays an important role in achieving our mandate of generating strong risk-adjusted returns over the long term, while building a sustainable future.

The Responsible Investing team's objectives are to:

- Continue developing a culture of awareness by building our organizational ESG fluency to better identify, understand and proactively manage ESG-related principles and considerations at the asset, portfolio and corporate levels.
- Drive focus and resources towards the identification and management of material ESG-related principles and considerations.
- Identify material ESG-related matters and processes across our portfolio that can be improved and drive such improvement through proactive engagement, monitoring and reporting, over time.
- Leverage our scale and global presence to promote Mubadala as a steward and advocate of ESG principles and Responsible Investing.



# ESG Integration in the Investment Lifecycle

In 2023, Mubadala internally launched our updated Sustainable Returns Model. Based on industry best practice frameworks including the EBRD's Environmental and Social Risk Categorization, our model helps us assess the materiality, and maturity of a company in relation to 19 ESG factors. As part of our Stewardship efforts, Mubadala showcased our model to our sovereign wealth fund peers during the One Planet Sovereign Wealth Funds (OPSWF) annual meeting, and at COP28.

We are rolling out the Sustainable Returns Model across our investment lifecycle, from assessing new deals, through to continued engagement and asset management with our portfolio companies. The goal of our model is to identify opportunities to enhance the ESG performance of our portfolio companies, with a guiding focus on value creation and preservation.

Across 2023 Mubadala conducted deep engagement exercises to identify ESG value creation opportunities with more than 50 of our most material portfolio companies. This ESG engagement process is collaborative between the Responsible Investing team, Mubadala's asset managers, and the portfolio companies to ensure full alignment and integration of the ESG process.

Alongside this process, in 2023 Mubadala partnered with Solutions+, a leading provider of shared services, to launch Project Decarb.



This project involves us working closely with 16 of our UAE-based portfolio companies to help them develop and progress their decarbonization strategies.

# Stewardship

One of the Responsible Investing team's objectives is to leverage Mubadala's scale and global presence to promote the company as a steward and advocate of ESG principles and Responsible Investing. We believe that working collaboratively with our peers and partners leads to more aligned and better outcomes.

Mubadala's global stewardship efforts are primarily through our roles as part of the World Economic Forum (WEF), International Forum of Sovereign Wealth Funds (IFSWF), and the One Planet Sovereign Wealth Funds initiative (OPSWF). Where impactful, we also participate in panel discussions and working groups to help develop industry solutions.



# Project Decarb

In 2023, Mubadala partnered with Solutions+, a leading provider of shared services, to launch Project Decarb. This project involves us working closely with 16 of our UAE-based portfolio companies to help them develop and progress their decarbonization strategies. This effort was supported by the Mubadala Foundation to accelerate the alignment of our UAE-based portfolio with the UAE's net zero ambition.

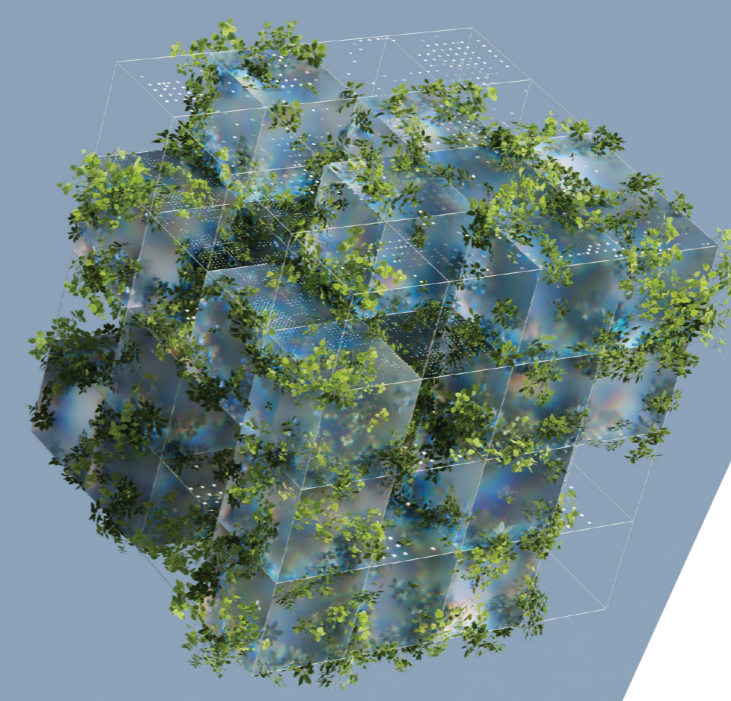
Project Decarb was a significant portfolio engagement effort from Mubadala. The company actively partnered with UAE assets to help integrate climate-related risks into strategic decision-making and support them on their transition journeys.

The initiative involved:

- Conducting in-depth energy audits for all companies.
- Measuring the carbon footprint across all emissions and all scopes
- Assessing the most effective and feasible carbon reduction initiatives to develop a comprehensive list of implementable projects.
- Evaluating financial impact of projects to develop an internal blended finance model that: (1) incentivizes companies to execute financially viable projects, and (2) leverages focused concessionary capital from Mubadala Foundation to support projects with lower returns.

The energy audits enabled us to identify short-, medium- and long-term decarbonization opportunities, and led to more than 100 decarbonization initiatives being identified across Mubadala's UAE-based portfolio companies.

This process demonstrated that proactively managing and implementing decarbonization measures can yield tangible value creation. Our real-life experience identified that most projects were financially attractive and indicates clear economic and decarbonization benefits from adopting a more comprehensive approach to incorporating climate and carbon considerations.



## OPSWF & the One Planet Disclosure Guidance

The One Planet Sovereign Wealth Funds network brings together nearly 50 of the world's largest institutional investors, sovereign wealth funds and asset managers with over USD 37 trillion worth of assets under ownership or management.

The OPSWF Network provides a unique opportunity to share and learn from experience gained across the global financial community and to find common ground for action and stewardship as we work together to tackle the climate challenge. In 2023, OPSWF members continued their focus on important initiatives such as unlocking investments in renewable energy in emerging markets, introducing certification standards in the clean hydrogen industry, and accelerating disclosure of climate data in private markets.

Mubadala was a co-author and is a strong advocate of OPSWF's One Planet Climate Disclosure Guidance. This calls on private market asset managers to share information for better informed investment decision making. The One Planet Climate Disclosure Guidance provides clear and actionable articulation of increasing levels of climate data disclosure

from private market asset managers. Its purpose is to offer guidance on disclosures to help implement Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

During the 6th Annual OPSWF CEO Summit in Paris in 2023, OPSWF Network members agreed to adopt the One Planet Climate Disclosure Guidance. They also welcomed the establishment of the Climate Data Steering Committee and the Net-Zero Data Public Utility (NZDPU) to improve the transparency and consistency of climate data.

Mubadala has requested that private markets asset managers meet the expectations of Level One of the One Planet Climate Disclosure Guidance, including estimating carbon footprint of underlying portfolio companies, for year-end 2023.

# NET ZERO

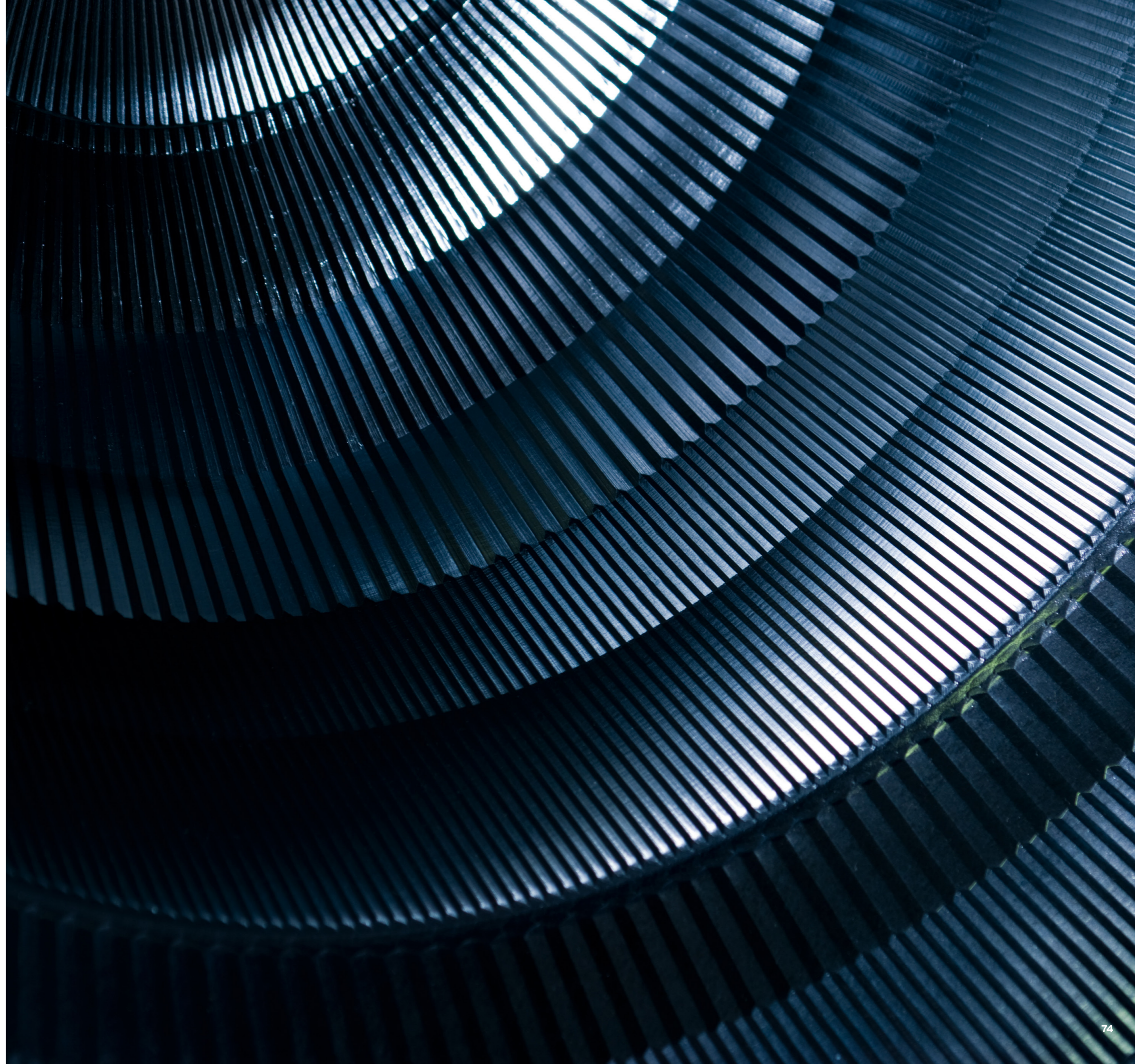
In line with the UAE Government's commitment, Mubadala is committed to achieving net zero greenhouse gas emissions across all scopes of our global portfolio and corporate emissions by 2050.

Mubadala, along with many of our UAE-based portfolio companies, is a signatory of the UAE Climate-Responsible Companies Pledge, which outlines several core principles as part of the commitment to achieving net zero emissions by 2050.

Mubadala's key strategic pillars for achieving net zero include:

- Driving decarbonization across our corporate operations.
- Integration of climate into the investment lifecycle.
- Investing in global solutions.
- Convening the investment community to advance best practice.

More about each of these pillars is outlined in the Responsible Investing section of the Mubadala website.







## Climate Integration into Investment Lifecycle

An area of particular focus in 2023 was developing the integration of climate considerations into Mubadala's investment lifecycle. We continue to have great conviction that integrating climate considerations into our investment decisions is core to successfully fulfilling our mandate of delivering strong financial returns and creating opportunities for future generations.

Mubadala has been working for several years to gain a deeper understanding of the carbon footprint of our portfolio and the potential effects of climate change on our most impacted portfolio companies. To help understand the impact of new investments on our climate strategy, in 2023 we introduced a tool to help us estimate the carbon footprint of new investments and provide preliminary insight into the potential impacts of carbon pricing on a company's operations.

As part of our ESG integration efforts in 2023, we developed our annual Climate deep-dive exercise on our most carbon material investments. This exercise, based on the framework of the Task Force on Climate-related Financial Disclosures (TCFD), now incorporated as part of the International Sustainability Standards Board (ISSB), provides insight into portfolio companies' climate performance, and identifies material climate-related opportunities and risks. We work collaboratively with our portfolio companies to develop their strategies and management processes to increase their climate resilience. We encourage all our portfolio companies to adopt robust TCFD reporting.

Engagement and impactful asset management is central to our climate strategy and implementation of Mubadala's Net Zero commitment. Our annual climate deep-dives and Project Decarb are just two examples of Mubadala's efforts in this space.

# Inaugural Green Bond

One of Mubadala's core pillars for achieving net zero is by investing in global solutions.

In 2023, Mubadala released its first ever Green Bond, for USD 750 million. The issuance saw strong demand from the market with more than 9x oversubscription.

This instrument will help contribute to investing in global solutions required for the world to meet the goals of the Paris Agreement

## COP 28

For two weeks from 30 November to 12 December the United Arab Emirates hosted the world for the COP28 climate negotiations - critical for the future of our planet.

COP28 brought together government and business leaders from around the world to mobilize collective action to limit the global temperature increase to 1.5°C above pre-industrial levels, or lower.

COP28 served as a historic capstone to the UAE's Year of Sustainability. For the first time, all countries of the world agreed to transition away from fossil fuels and keep 1.5°C within reach in the UAE Consensus.

Mubadala contributed to this effort by being a Showcase Participant at COP28 with a substantial presence through a pavilion in the Green Zone at Expo City, and participation in and facilitation of numerous events.

The Mubadala pavilion at COP28 featured over 45 engaging panels and sessions with more than 150 speakers from portfolio company executives, partners and Shabab Mubadala - Mubadala Youth Council - participants, as well as high profile external speakers. More than 3,000 people attended the panels, and an estimated 7,000 visitors came to the pavilion engaging with our ambassadors, digital content, and displays by portfolio companies.

The pavilion also hosted the signings of a number of Memorandums of Understanding including by Masdar City, the UAE Ministry of Energy, the Manchester University Graphene Centre, Tadweer, NYUAD, Mubadala Foundation, and Solutions+.

Our Senior Leadership actively participated in key events throughout the COP28 period such as Milken Middle East & Africa, Bloomberg Green, Goals House, SuperClimate, Abu Dhabi Finance Week, Fortune Global Forum and others - effectively representing our organization and showcasing our commitment to addressing global climate challenges and fostering meaningful collaborations.



# KEY EVENT HIGHLIGHTS



## Cepsa

Through its Positive Motion 2030 strategy, CEPSA is investing up to 8 billion euros to become leaders in sustainable mobility, green hydrogen and second-generation biofuels for Spain and Portugal.

One of the leading integrated energy companies in Spain with operations in over 20 countries across four continents, CEPSA is transforming its traditional energy business into a sustainable mobility and energy ecosystem. It aims to produce 2GW of green hydrogen and 2.5 million tonnes of biofuel by the end of the decade.

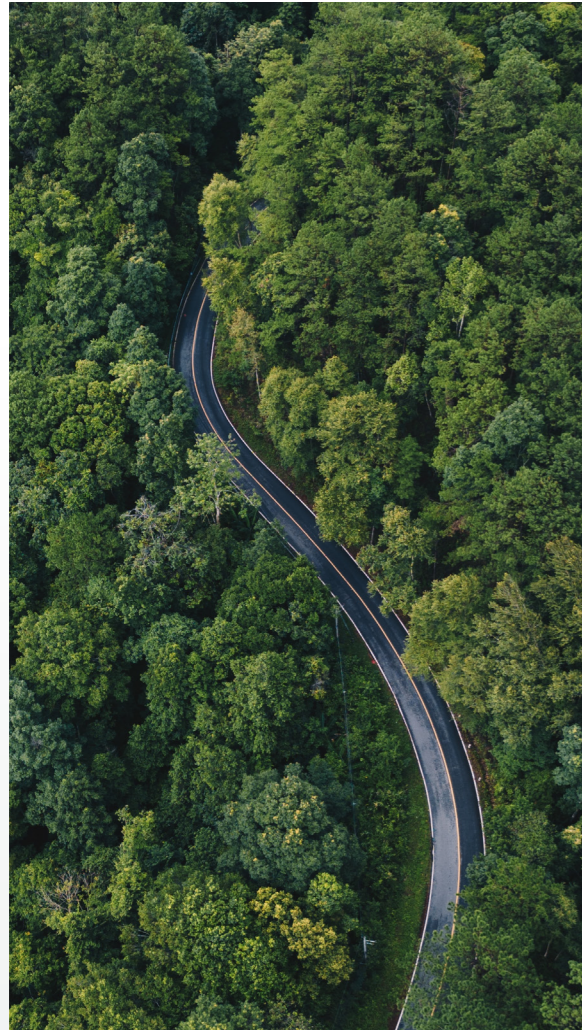
Mubadala is supporting CEPSA's 'Positive Motion' strategy as it targets not just reaching net zero by 2050, but to go beyond, to be net positive, creating value and a brighter future for all.

During COP28, Cepsa and C2X announced a partnership to develop the largest green methanol plant in Europe. In the presence of Spanish President Pedro Sánchez, the two companies explained their plans to open a plant in Huelva with an investment of up to 1 billion euros.

One of the five largest green methanol plants in the world, it will have an annual production capacity of 300,000 tons, avoiding the emissions of up to 1 million tons of CO<sub>2</sub>.

Sánchez acknowledged that this investment is fully aligned with Spain's reindustrialization and energy transition strategy.





## Masdar

Created in 2006 by Mubadala, Masdar is one of the world's largest renewable energy companies and a green hydrogen leader. Masdar is active in more than 40 countries and manages projects with a combined value of over USD 30 billion.

Today, the company is co-owned by Mubadala, ADNOC, and TAQA and aims to increase its capacity to 100GW by 2030.

Masdar started COP28 on a strong footing as its GBP11 billion partnership with RWE Clean Energy in the UK offshore wind market was announced by UK Prime Minister, Rishi Sunak, during his speech at the World Climate Action Summit.

Over two weeks at COP28, Masdar concluded 36 deals and announcements with major players across the US, Southeast Asia, the Middle East, Europe, and Africa.

## GlobalFoundries

GlobalFoundries is one of the world's leading semiconductor manufacturers and the only one with a global footprint.

Their 'Journey to Zero' commitment to sustainability and minimizing their impact on the environment led to annual savings of 35.2 million kWh of electricity and 816,000 m<sup>3</sup> of water conservation in 2022.

They are on track to reduce their greenhouse gas emissions by 25 percent by 2030.



## EGA

Emirates Global Aluminium (EGA) produced 66 thousand tons of CelestiAL solar aluminium in 2023, with some volume sweetened with recycled content as CelestiAL-R.

During the year, EGA announced the start of construction of the UAE's largest aluminium facility. When completed, EGA's recycling plant in Al Taweelah will have an annual production capacity of 170 thousand tons per year.

## Skyborn Renewables

Skyborn Renewables, the largest private offshore wind developer in the world, was acquired by Mubadala and Global Infrastructure Partners (GIP).

With its strong presence in Europe and Asia Pacific, Skyborn Renewables has successfully developed more than 7GW of energy capacity in offshore wind and it has a 30GW pipeline of highly diversified offshore wind projects, the fastest growing renewable energy sector.



## Masdar City

Masdar City is a pioneering sustainable urban community, a world-class business and technology hub, and a “green print” for cities that want to be part of the solution to climate change.

With one of the largest clusters of LEED Platinum buildings in the world, it is dedicated to creating a new kind of city, a new way of working and living, and a more sustainable future for everyone.

The Masdar City Free Zone is a diverse, innovative, and ambitious group of over 1,000 organizations that benefit from comprehensive business support as well as the city’s rich ecosystem. Masdar City hosts a growing residential community and two generations of autonomous vehicles. It also manages the Masdar Green REIT, a real estate investment trust dedicated to investing in sustainable real estate assets. Currently the Masdar Green REIT is worth nearly AED 2.8 billion.

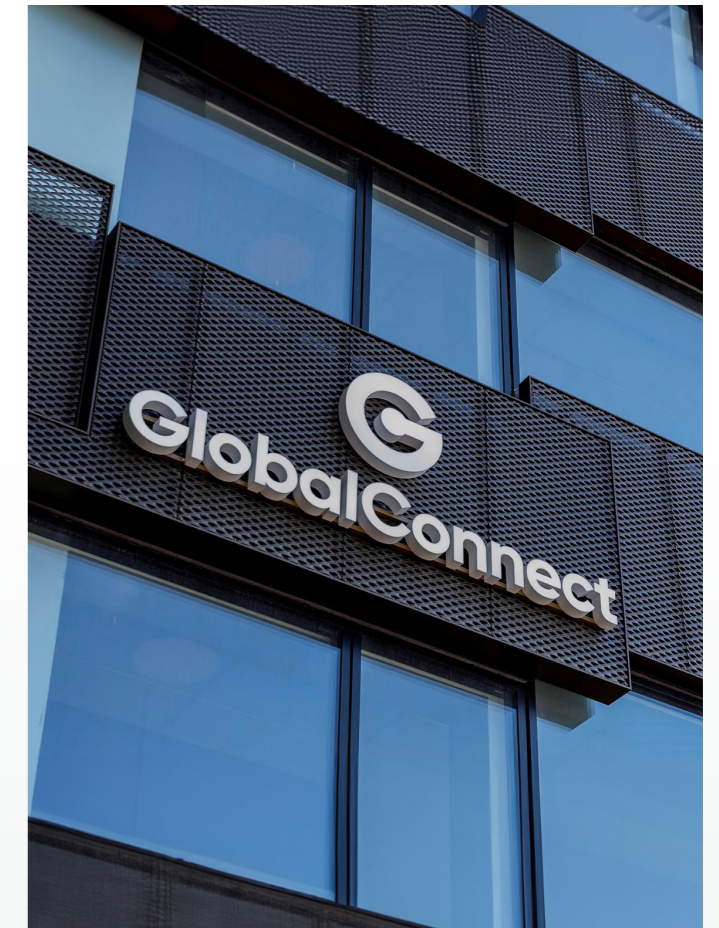
Masdar City is a proud partner in 'Innovate for Climate Tech.'



## Tabreed

Tabreed is a world-class developer of environment-friendly district cooling solutions in the UAE, now with 90 plants in its portfolio and operating in six countries.

In 2023, the company saved 2.52 billion kWh in energy avoiding 1.5 million metric tons of CO2 emissions. Their Tasheel VFD Retrofit Project improves plant efficiency through Variable Frequency Drives - as of 2023, three phases have been successfully completed and the company estimates that, over the next ten years, this will save an additional 223,000,000 kWh, consequently preventing the release of a further 105,000 metric tons of CO2 emissions.



## GlobalConnect

In 2023, Mubadala acquired a minority stake in GlobalConnect, a fiber-based data communication and data center services provider to enterprises, public institutions and consumers in Northern Europe.

Since 2020, GlobalConnect has operated on 100 percent renewable energy, implementing an innovative immersive cooling technology that is at the forefront of reducing the environmental impact of the data center industry.

With demand for data centers booming, GlobalConnect’s innovative cooling technology uses immersive cooling instead of air cooling, which is proven to have significant environmental benefits, as measured by Power Usage Effectiveness.

With an even more energy-hungry future looming, GlobalConnect is exploring ways of keeping the environmental impact of the entire industry in check.



## Aligned

In 2023, Mubadala invested in Aligned Data Centers, a leading pan-Americas data center company headquartered in the U.S. With this investment, Mubadala became a minority partner alongside majority partners managed by Macquarie Asset Management.

The investment is expected to support Aligned's rapid expansion in the Pan-American data center market, meeting the growing demand for data centers and delivering sustainable and essential digital infrastructure across the region.

## Aldar

As one of the leading real estate developers and managers in the UAE, Aldar is committed to becoming net zero by 2050, with 90 percent greenhouse gas emission reduction targets, in line with the latest climate science.

Aldar's Sustainable Design Standard embeds low-carbon design options, maximizing energy efficiency, building performance and asset climate resilience, while still prioritizing clean energy, tenant sustainability guidance and better waste management.



## LeasePlan

LeasePlan is one of the world's leading leasing companies with 1.8 million vehicles in over 30 countries.

The company manages the entire life cycle of its vehicles, handling everything from purchasing and maintenance to selling formerly leased cars and aims to achieve net zero tailpipe emissions by 2030.

They are one of the founding members of the EV100 - a global initiative designed to accelerate the use of electric vehicles, 28 percent of all new vehicle activations in 2022.



## Rio Grande LNG

In 2023, Mubadala Invested USD 500 million alongside GIP, GIC, TotalEnergies and Next Decade to finance the construction of the first phase of the 27 million tonnes per annum Rio Grande LNG ("RGLNG") export facility in Texas.

The RGLNG project, upon completion, is poised to become the largest privately funded infrastructure endeavour in Texas and a benchmark for low-carbon intensity in US gas projects. The project underscores the critical role that LNG and natural gas will continue to play in supporting the transition towards cleaner forms of energy.





## Yahsat

Yahsat is a leading fixed and mobile satellite services operator offering integrated satellite communications solutions in more than 150 countries.

During COP28, Yahsat played an integral role driving the 'Space Sustainability Agenda' with a focus on climate tech and satellite communications solutions in the service of sustainability.

Yahsat hosted two sessions during COP28 including a knowledge-sharing session on empowering at-risk and indigenous communities through capability building and technology for adaptation and mitigation", and a panel discussion on the role of technology in supporting ocean biodiversity and safety of the fishing community.

Yahsat's senior management participated in eight COP28 sessions, demonstrating technologically advanced space solutions to accelerate climate action at the country, regional, and global level.

Yahsat also signed a strategic collaboration with Greenhouse Gas Satellite (GHGSAT) and Abu Dhabi National Oil Company (ADNOC), aimed at reducing methane emissions from the global energy sector, which was recognised as a flagship 'lighthouse project' at COP28.

## ACX

ACX a Mubadala portfolio company and a leading environmental markets exchange, caters to corporates, financial traders, carbon project developers and other industry stakeholders.

ACX leverages its proprietary technology to facilitate and scale growth of the environmental product markets to align with global ambitions of achieving Net Zero.

In 2022, Mubadala acquired a strategic stake in ACX that established the first fully regulated carbon trading exchange in Abu Dhabi. ACX provides corporates, financial entities, carbon project developers and other market participants with an efficient and transparent means of trading environmental instruments.

Through leveraging distributed ledger technology, ACX provides a seamless and user-friendly platform with the lowest transaction fees in the market, to facilitate growth of environmental instrument markets and contribute to the necessary transition to a net zero global economy.

Mubadala is also supporting innovative solutions to climate finance through its investment in ACX.

By mid-century, BloombergNEF projects voluntary carbon markets could grow to between USD 160 billion and USD 624 billion annually. The UAE's recognition of carbon as a regulated asset class is an advantage in this market because banks and ACX's other financial institution clients want to trade in a fully regulated market.





## Hub71

Hub71 provides startups from around the world with access to opportunities and resources to help them grow - from funding and mentorship to networking and commercial opportunities.

They have successfully onboarded more than 220 startups since 2019 and are contributing to UAE's sustainability by actively supporting Climate Tech innovations. AgriTech and FoodTech are also key focus sectors to support innovative, sustainable solutions.

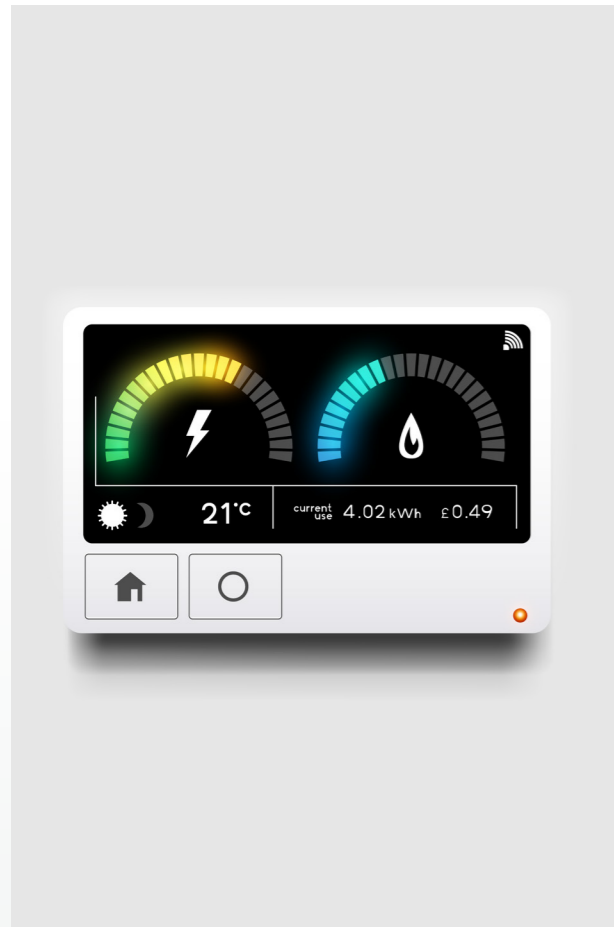


## TATA Power Renewables

Tata Power Renewables is one of India's largest integrated power companies. Mubadala, in partnership with BlackRock Real Assets, invested USD 525 million which will see them achieve more than 20GW of renewable energy generation capacity.

They are leading the rooftop solar and electric vehicle charging space in India. Tata anticipates increasing renewable assets from 4.5GW to 20GW over the next five years, and will be contributing 6 percent, or 30GW, to India's grid by 2030.





## Zenobē

Zenobē is an electric vehicle (EV) fleet and grid-scale battery storage specialist based in the UK. The company is one of the largest owners and operators of EV buses in the UK, Australia and New Zealand and has a growing portfolio in continental Europe and North America.

The battery specialist has 430MW of battery storage in operation or under construction and 1.2GW of projects in advanced development with more to come. Zenobē aims to power 4,000 electric buses, trucks, and commercial vehicles by 2026.



## Calisen

Calisen is one of the leading owner/managers of essential energy infrastructure assets in the UK. In addition to installation, meter reading, electric vehicle charging and maintenance, their current focus is smart meter roll-out - a key element in the move towards decarbonization.

Their portfolio will create a lifetime carbon emissions reduction of 4.2 million tons by 2037, whilst also supporting the development of electric vehicle charging infrastructure in the UK. Mubadala, in partnership with BlackRock and in consortium with Goldman Sachs Infrastructure Partners, successfully completed the take private of Calisen in 2021.



## Princeton Digital Group

In 2022, Mubadala invested USD 350 million in Singapore-based Princeton Digital Group, a leading Pan-Asia data center operator with a footprint across key Asian digital economies. The company has committed to using 100 percent renewable energy by 2030 and recently joined the iMason's Climate Accord, a global initiative to reduce carbon in digital infrastructure.

Princeton Digital Group (PDG) develops and operates data center infrastructure in the dynamic digital economies of Asia including China, Singapore, India, Indonesia,

Malaysia, and Japan. They have offset about 6 percent of the 2022 carbon footprint through renewable energy procurement from geothermal sources and first-of-a-kind procurement of biomass energy, in the form of RECs in Indonesia. Additionally, PDG finalized a solar PPA in India and entered a biomass power PPA in Indonesia.

PDG is operating greenfield hyperscale projects in China at industry leading power usage effectiveness and is piloting the use of industry leading cooling technologies in its datacenters.

# CASE STUDIES



# INVESTMENTS IN PARTNERSHIPS



## Acquisition of Fortress Investment Group



Fortress will continue to operate as an independent investment manager under the Fortress brand, with full autonomy over investment processes and decision making, personnel and operations.

Under the new joint ownership, Fortress is expected to generate significant value for its stakeholders by further establishing itself in the alternative investment space, particularly in credit and real estate across public and private markets, where it currently manages USD 46 billion of assets on behalf of more than 1,900 institutional investors and private clients.

Fortress will benefit from Mubadala Capital's global network and extensive portfolio of diversified assets, as well as its access to proprietary investment opportunities to support its growth and expansion.

Fortress Investment Group and Mubadala, through its wholly-owned asset management subsidiary Mubadala Capital, entered into definitive agreements to acquire 90.01 percent of the equity of Fortress held by SoftBank Group Corp., who were the owners since 2017. After transaction close, Fortress management will own approximately 30 percent equity interest in the company and hold a class of equity entitling Fortress management to appoint a majority of seats on the board. Mubadala Capital, which currently holds a 9.99 percent stake in Fortress, will own 70 percent of Fortress equity.

## Investing in Global Credit Secondaries

Ares Management Corporation, a leading global alternative investment manager, and Mubadala formed a joint venture to invest in global credit secondaries opportunities.

The joint venture, anchored by Mubadala, initially aims to deploy approximately USD 1 billion as it seeks to capitalize on the anticipated growth and substantial demand from General and Limited Partners for customized liquidity solutions for the credit secondaries asset class. The joint venture is anticipated to scale alongside the growing market opportunity.

The joint venture is a key milestone for both organizations and strengthens Mubadala's position within the secondaries credit market, while enabling Ares to significantly scale its offering. By leveraging Ares' track record and Mubadala's global footprint, the joint venture will enable access to a broader network, differentiated market intelligence, and new transaction opportunities.

Since 2017, Ares and Mubadala have established a long-standing strategic relationship investing across the full spectrum of the credit sector.



## Abu Dhabi's Global Financial Hub

In March 2023, Mubadala and Aldar Properties signed an agreement to jointly develop a state-of-the-art Grade A office tower on Al Maryah Island.

This venture will enhance Abu Dhabi's real estate landscape, reaffirming Aldar's leadership in the premium office market and demonstrating the commitment to advancing Abu Dhabi's real estate and financial sectors.

Set within the prestigious Abu Dhabi Global Market (ADGM), the 37-floor tower, with a net leasable area of 63,000 sqm, symbolizes a strategic step towards fulfilling the

increasing demand for premium office space. This development capitalizes on the strong relationship between Aldar and Mubadala, building upon their historic cooperation and significant acquisitions within ADGM.

Upon completion in 2026, the tower will be managed by Aldar Investment Properties, potentially increasing its portfolio's net leasable area to over 2 million sqm - about twice the total floor space of the Pentagon - of commercial office space. The venture will significantly impact Abu Dhabi's real estate market, setting new benchmarks for office spaces and contributing to the Emirate's thriving international financial center.

## Demand for Data Center

In August 2023, Mubadala invested in Aligned Data Centers - one of the fastest-growing and dynamic data center providers in the Americas. Headquartered in the US, the company provides both Scale Data Centers and Build-to-Scale solutions to support global hyperscale and enterprise customers.

This investment is expected to facilitate Aligned's rapid expansion across the pan-American data center market, meeting the escalating demand for data centers and promoting sustainable and essential digital infrastructure development across the region.

With offerings encompassing both colocation and build-to-suit solutions, Aligned addresses the need for scalable and sustainable infrastructure. At full buildout, Aligned's footprint will exceed 2.5 GW of critical capacity across 40+ data centers, underscoring its substantial presence in the market.

With its AI-ready capabilities, Aligned is well-positioned to cater to the evolving needs of artificial intelligence and machine learning services, thus ensuring Mubadala's foothold in the forefront of technological trends. This investment marks a crucial step in Mubadala's overarching strategy to fortify its global digital infrastructure portfolio, reflecting its commitment to fostering innovation and sustainability in the digital landscape.

Moreover, Aligned's recent expansion into Latin America positions it as one of the largest private data center operators in the region, further enhancing its market dominance. This

strategic partnership not only enhances Aligned's market presence but also solidifies Mubadala's role as a key driver of digital infrastructure evolution in the Americas and beyond.





## SailGP Global Partnership

Mubadala joined forces with SailGP in 2023 - the most exciting race on water - in a new global partnership spanning three Seasons.

Through Mubadala's commitment to responsible investing and SailGP's ambition of becoming the most sustainable sport in the world, the partnership focuses on three key pillars:

- Building a more sustainable future through collective efforts in sport and business.
- Connecting responsible investing with cutting-edge technology and innovation to push boundaries and drive forward new ideas.
- Promoting Science, Technology, Engineering, and Mathematics (STEM) education and sports to inspire future generations of leaders and athletes.

Aligned with the third pillar, Mubadala also became a global partner of SailGP Inspire, the global league's gender-balanced youth and community engagement program that is building a more inclusive sport from the ground up while promoting diversity, inspiring change, and accelerating inclusion.

Through its three pathways - careers, learning, and racing - the program has reached over 20,000 young people around the globe. These two trailblazing organizations came together to support the world's most important race... a race for a better future.

# INVESTMENTS IN COMMUNITIES

## Truist Insurance Holdings

Mubadala, in partnership with leading private equity firm, Stone Point Capital, purchased a 20 percent stake for USD 1.95 billion in Truist Insurance Holdings, Inc., a subsidiary of Truist Financial Corporation (“Truist”; NYSE: TFC).

Based in Charlotte, North Carolina, Truist Insurance Holdings is the fifth-largest insurance broker in the United States with market leading positions across the insurance distribution value chain and operates more than 240 offices through its subsidiaries.

This investment enables the acceleration of the growth trajectory of a market leader in US insurance distribution.

Mubadala did a follow-on to purchase the remaining stake of the business in Q1 of 2024.



## 15 Years of Impact in Tennis

For over 15 years, Mubadala has been a steadfast supporter of tennis, aiming to nurture talent, inspire future players, and leave a lasting impact on communities worldwide.

Mubadala's journey in tennis has evolved into a comprehensive program encompassing grassroots initiatives, professional tournaments, and global partnerships.

In 2023, we served as the title sponsor of the Mubadala Abu Dhabi Open (2023-2024), a WTA 500 event, marking a historic milestone for Abu Dhabi in hosting top female players.

This was the latest in Mubadala's commitment to tennis which began with the inaugural Mubadala World Tennis Championship (MWTC) in 2009, held at Zayed Sports City tennis stadium in Abu Dhabi. This event not only attracted top players but also initiated the Tennis in Schools program, providing a platform for young players to develop and showcase their skills. Additionally, the Mubadala Community Cup engaged over 3,300 participants in the UAE, fostering a love for the sport at the grassroots level.



Mubadala's impact extended globally through partnerships with tournaments such as:

- The Rio Open (2017), where Mubadala supported underprivileged youth through The Rio Open's NERO program, emphasizing its commitment to social initiatives.
- The Mubadala Silicon Valley Classic (2018), highlighting support for diversity and inclusion in women's tennis.
- The Mubadala Citi DC Open (2023), co-sponsoring an ATP and WTA 500 event in Washington D.C., expanding its reach to new audiences.

Mubadala's dedication to the future of tennis is evident through initiatives like the Mubadala Tennis in Schools program, introducing over 6,100 students to tennis across 24 UAE schools. These efforts lay the foundation for a future rich in local talent and passion, solidifying Abu Dhabi's presence on the global tennis stage.



## A Fighting Chance

Mubadala in partnership with Electric Films won a prestigious Gold Dolphin at the Cannes Corporate Media & TV Awards. 'A Fighting Chance: A Tale of Perseverance', chronicles a life-changing journey of 30 young athletes and four of their volunteer coaches from the favelas of Rio de Janeiro to the spotlights of the prestigious Abu Dhabi World Pro Jujitsu Championship.

Their participation was made possible through the collaboration of many Mubadala organizations. In the true spirit of partnership and inspiration, which are two of our corporate values, we brought together different parts of our business and external parties to support the team as they demonstrated their determination and resilience in overcoming adversity and the stigma associated with the environment where they live.

Mubadala Foundation, our philanthropic and CSR arm, supported the athletes to travel to Abu Dhabi and compete at the Championship. On its part, our wholly-owned asset management subsidiary Mubadala Capital, stepped in to provide a long-term social project sponsorship, which is ongoing working with the Brazil Foundation, to lay the groundwork for the Maré Top Team including getting them officially registered, planning for their growth, and outlining a business strategy for long-term sustainability.

The impact of the Team rippled out into their community in profoundly positive ways. Their remarkable journey served as a source of inspiration and hope, igniting a sense of possibility among the youth and residents of the country.

The success of these young athletes acted as a powerful catalyst and motivator for other kids growing up in similar challenging circumstances where crime, drugs, violence and even death are an everyday occurrence. They became local heroes, demonstrating that dreams could be achieved through hard work, determination, and resilience.

The community witnessed tangible benefits as well. Their involvement in supporting local businesses strengthened the local economy, creating a positive economic impact within the favelas. Furthermore, the cultural events they attended together promoted community bonding and a shared sense of joy and pride that their youth can be the generation that makes a tangible change with our help.

# INVESTMENTS FOR TOMORROW



## Andalusian Green Hydrogen Valley

One of the most impactful green hydrogen projects is taking shape on Spain's southern coast, where energy company Cepsa is constructing the Andalusian Green Hydrogen Valley—two new green hydrogen generation plants that will produce up to 300,000 tons of green hydrogen per year for use across Europe in aviation and heavy land and sea transport.

The essential ingredients for producing green hydrogen are access to water and renewable energy. With sufficient sun, wind and available land, Spain is able to produce renewable energy at the cheapest cost in Europe, and Cepsa is creating a maritime corridor to transport green hydrogen to Rotterdam for export to northern Europe.

Through Cepsa's partnership with Mubadala, they are able to act with the speed needed to get large-scale renewable and green hydrogen projects off the ground.

## Creating New Biofuel in Brazil

Brazilian energy company Acelen, owned by Mubadala Capital, is leading the transition from legacy hydrocarbons by creating a new biofuels refinery in Northeast Brazil.

Hydroprocessing locally grown macauba vegetable oil, the refinery will create biodiesel and sustainable aviation fuel - a proven, scalable, solution for biofuel production, whilst also recovering 10 percent of Brazil's degraded land through the project.



## Gas Discovery in Southeast Asia

Mubadala Energy made headlines in December 2023 with its gas discovery in the South Andaman Sea, Indonesia. The exploration of the Layaran-1 well, positioned 100 kilometers offshore near North Sumatra, led to the uncovering of a vast gas reserve, estimated at over 6 trillion cubic feet.

This discovery stands as one of the most noteworthy in Southeast Asia's history, underscoring the region's potential for similar future explorations.

With Mubadala Energy's strategy to expand its gas portfolio to support the energy transition, this development offers material commercial opportunities and adds momentum to their

strategic growth story. This is not only a substantial development for Mubadala Energy but also a huge milestone for Indonesia's and Southeast Asia's energy security.

Leveraging its world-class technical and operational capabilities, Mubadala Energy is at the forefront of enhancing the energy supply in the global market, contributing to the economic development and energy independence of the region.

The implications of this discovery extend beyond the immediate enhancement of energy supplies. It underscores the UAE's pivotal role in the global energy market, showcasing its capability to foster economic development and fortify international partnerships through strategic energy investments and exploration activities.





## Sustainable Transport with Zenobē

In December 2023, Mubadala invested in Zenobē, a global leader in fleet electrification and battery storage solutions. The investment was executed with Infracapital, the infrastructure equity investment arm of M&G Plc.

Founded in 2017 and based in London, Zenobē specializes in EV fleet solutions and battery storage, supporting fleet operators' transition to electric vehicles and providing battery connectivity to transmission grids. Since 2020, Zenobē has experienced remarkable growth, with over 1,000 electric vehicles supported globally and 430MW of battery storage in operation or under construction. It has a strong presence in the UK, Australia and New Zealand and a growing portfolio in continental Europe and North America.

With Mubadala's support, Infracapital is investing £270 million to further expand Zenobē's presence in the UK and globally. This strategic partnership aims to power 4,000 electric buses, trucks, and commercial vehicles by 2026, catalyzing the global shift to cleaner transportation.

Zenobē's strong track record in innovation and market leadership aligns with Mubadala's focus on investing in industries shaping the future to address global challenges like climate change. As Zenobē expands its footprint into North America and diversifies into new markets, Mubadala remains committed to supporting its mission of delivering sustainable solutions for a more resilient future.



## Cooling Solutions for Computing Environments

Mubadala's Energy and Sustainability team alongside investment funds managed by KKR, invested in the acquisition of CoolIT Systems ("CoolIT"), a leading provider of scalable liquid cooling solutions for the world's most demanding computing environments.

Headquartered in Calgary, Canada with operations across North America, China and Taiwan, CoolIT's patented liquid cooling technology is designed to reduce the operating costs and carbon emissions of data centers and digital infrastructure, and to improve equipment reliability and longevity, while allowing for higher server density than legacy air-cooling methods.

As the demand for energy-efficient data center cooling grows, Mubadala's investment will support the company's ability to scale its best-in-class direct liquid cooling solution and serve its global customers across the data center market.

This investment and the team's overall strategy are aligned with the objectives set out in the UN Sustainable Development Goals.



