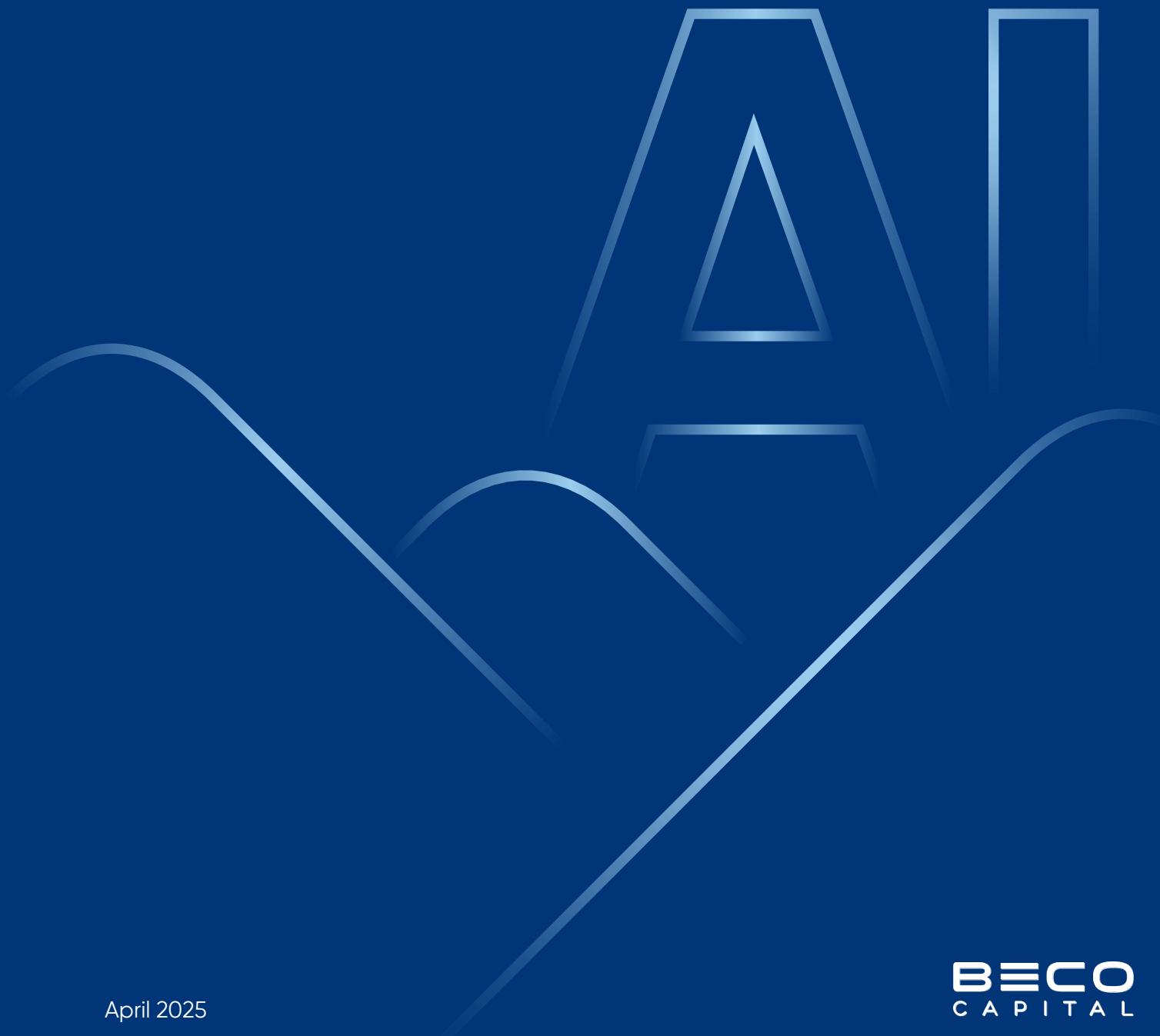


# Strategy in AI's Shifting Sands

How GCC Pioneers Are Ushering in a New Wave of Innovation.



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The UAE has emerged as a leading AI change agent, thanks to strategic collaboration across public, private, and academic sectors, as well as early investments in research, planning, and innovation.

Similarly, Saudi Arabia is making significant strides, recognizing the opportunities that AI presents both within the Kingdom and across the region.

Today, AI is rapidly moving beyond the research phase into a revolutionary phase, which is in turn enabling the growth trajectory of other transformational technologies such as computational biology and robotics. The UAE's foresight in prioritizing the commercialization of extensive AI research and development efforts that have been undertaken by various government entities, has been a key driver of this shift. This approach both accelerates AI's practical applications and also positions the UAE at the forefront of the global AI landscape, with Saudi Arabia rapidly stepping in to become its regional running mate. As AI continues to evolve and reshape industries worldwide, the region's forward-thinking strategies ensure it's ready to harness AI's potential for economic growth, societal advancement, and global impact.

At this juncture, we believe it may be of value to share key themes of BECO's internal discussions on AI and surface observations and implications for the region, and the wider global business community. It's important to bear in mind that we're all operating in a dynamic environment; therefore these observations are not fixed; and will be revisited, as we all progress.

# PART 1

# OUR FIRST PRINCIPLES- BASED THOUGHTS ON AI



## Thought 1: From a Glacial Pace to a Global Phenomenon

# AI. THE 70 YEAR OLD “OVERNIGHT HIT”



While AI's rise to prominence might seem like an overnight success story, its journey to get here took 70 years.

It has been a journey marked by perseverance, and one with no guarantee of making it this far. The field's origins trace back to the 1950s and 1960s, with pioneer scientists Alan Turing and John McCarthy laying the foundational theories and concepts. While Turing's work is widely recognized, McCarthy's equally significant contributions often receive less attention. To fully grasp AI's roots, it's crucial to examine the backgrounds and key insights of these two visionaries:

Alan Turing, a British mathematician, is often regarded as the father of computer science and AI. In his 1950 paper, "Computing Machinery and Intelligence," he introduced the Turing Test to determine if a machine exhibits human-like intelligence.

John McCarthy, an American computer scientist, coined the term "Artificial Intelligence" in 1956 and organized the Dartmouth Conference, which marked the birth of AI. In 1958, he developed the LISP programming language, a standard tool for AI research.

Early AI efforts sparked optimistic predictions, but progress stalled due to limitations in computational power and the scarcity of data, leading to periods known

as "AI winters". The field regained momentum in the 1990s and 2000s with advancements in computing, notably through Nvidia's innovations, and the advent of big data. This resurgence culminated in a significant wave from 2015 to 2019, marked by breakthroughs in machine learning and deep learning, demonstrating AI's potential in image recognition, natural language processing, and other complex tasks.

The stage was set for GenAI's explosive arrival in 2022. The convergence of purpose-built infrastructure (GPUs), cloud computing provided by major players like Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform (GCP), and the Internet's accessible dataset provided the ideal conditions for GenAI and in turn Large Language Models (LLMs) to flourish. The public launch of OpenAI's ChatGPT marked a turning point, sparking widespread interest and excitement.

## Thought 2: In the New Data Landscape, Centralization Meets Democratization



It's often been repeated that "data is the new oil". Like oil, data requires refinement to unlock its true value. However, unlike oil, data isn't capitalized based on geographical fortune.

The emergence of sophisticated architectures such as data lakes and data warehouses has democratized data science, making it increasingly accessible. This democratization has been a key catalyst in igniting the GenAI revolution, enabling a broader range of participants to harness the power of large-scale data analysis and generation.

Governments in the region are recognizing the potential of structured, accessible data. For instance, the Saudi government has integrated 130 government databases and created a data-sharing marketplace for over 250+ government systems integrated in the national data catalog and accessible via API. This structured approach allows for the leverage of vast datasets with AI, exemplifying how data consolidation can drive AI innovation at a national level.

From such government initiatives to big tech giants investing billions in research and development, and a new wave of well-funded startups, actors at all levels are vying to capitalize on GenAI's potential. This widespread engagement underscores GenAI's perceived transformative power and its potential to reshape industries and economies.

### Thought 3: GenAI is Borrowing from Past Revolutions and Creating an Entirely New One

## A BREAKTHROUGH MOMENT

Research origins

Applications & services

New monetization models

GenAI

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## When is a major technological breakthrough truly a breakthrough?

When it achieves mass adoption. When consumers adopt technologies, it democratizes access and spurs an influx of builders and innovators. GenAI's trajectory has been interesting for so many reasons, not least because it's adopted elements from the Internet, smartphone, and social media revolutions. This entails three key components:

**1. Research Origins:** The Internet's widespread adoption in the 1990s transformed it from a research tool to a global commercial and social platform, leading to the dot-com boom and the rise of tech giants. Similarly GenAI emerged from decades of academic and industrial research.

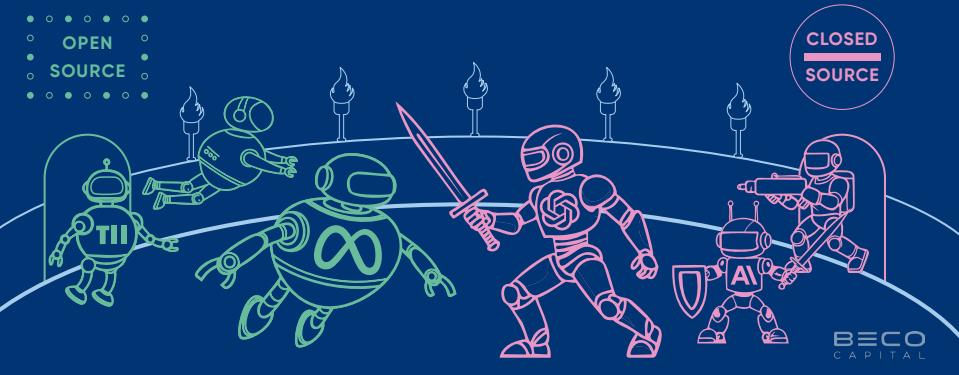
**2. Applications and Services:** Mirroring the smartphone revolution ignited by the iPhone in 2007, GenAI is spawning a diverse ecosystem of applications and services, fostering innovation among developers and startups.

**3. New Monetization and Business Models:** Similar to how social media platforms like Facebook/Meta and Twitter/X democratized content creation and distribution, GenAI is giving rise to new forms of value creation and monetization.

GenAI's journey from research to application layer is now paving the way for innovative monetization and business models. The triangulation of hyperscalers, data centers, and GPUs – the infrastructure backdrop discussed earlier – has created the perfect environment for GenAI to flourish, unlocking unprecedented creativity and innovation among a new generation of entrepreneurs and users.

#### Thought 4: Governments and Startups are Competing. Why?

## THE DUEL OF GLOBAL GLADIATORS



The AI arena is a unique playing field where diverse teams compete, driving unprecedented advancements and democratizing access to cutting-edge technology.

Notable models like Claude from heavily funded startup Anthropic, Falcon from the Technology Innovation Institute (TII) in the UAE, and LLaMA from Meta illustrate how world-leading AI innovations are emerging from a diverse array of stakeholders. These include multi-trillion-dollar companies, multi-billion-dollar companies, startups, and sovereign entities from around the world. This diversity in contributors is particularly remarkable, as few sectors showcase such a wide range of players competing at the highest level.

OpenAI, with its ChatGPT series, has emerged as the face of the AI revolution, single-handedly leading the

way for the next wave of innovation at levels likely to surpass what mobile and the cloud achieved, all within a much shorter time frame. While OpenAI popularized and made LLMs mainstream, others quickly followed suit.

The exciting theme that emerges from all these different stakeholders is the fundamental approach they are taking around how they access the data required and their mindset as to whether they build with an open vs. closed source approach and so much more. It's very hard to say what approach ends up dominating but with the overall theme of all things GenAI, we will likely end up at a place where companies leverage both closed and open source models depending on the use case.

## Thought 5: Watch Your Back, Builders. Balance Innovation with Vigilance

### WATCH YOUR BACK. STAY VIGILANT.



As venture capital investors, one of our main concerns is when a founder takes their eye off the ball, or isn't sufficiently paranoid about competition.

It's a life-and-death paradox: one day you're on top of the world, and the next day you're irrelevant and overtaken by an unassuming competitor. It's especially amplified in the age of AI. A notable example is the trajectory of Google/Alphabet, who had the initial lead from the lot in 2015, and actually paved the way for GenAI as we know it on the back of the launch of the transformer architecture - which is critical in powering Gen AI models.

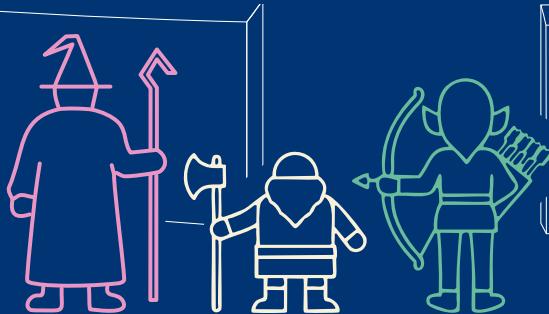
While 2015 might seem unremarkable to many, it was a landmark year for those in the data science space. Google released TensorFlow on November 9, 2015, followed by the founding of OpenAI a little over a month later, on December 11, 2015. TensorFlow, available as an open-source library, had a quick and immediate impact, allowing developers, researchers, and companies worldwide to use it for their Machine Learning projects. Google, a giant in its own right, also embedded TensorFlow into its products, such as Google Search. OpenAI, on the other hand, initially focused on groundbreaking research projects, with its GPT series released gradually over the years. Google continued its

AI advancements, achieving a significant milestone in 2016 when its AlphaGo program defeated legendary Go player Lee Sedol. In 2017, the Transformer architecture was introduced which allows models to understand the interplay of words in a sentence (therefore understanding context). Then, in 2018, BERT was released, marking a significant advancement in natural language understanding and paving the way for numerous new applications.

Despite these advancements, Google's initial dominance faced fierce competition as the AI landscape evolved rapidly. Google was met with intense competition from other tech giants and emerging startups. The lesson here is clear: while it's monumentally difficult to be first; it's even harder to remain in the lead. The huge strides Google has taken over the years have significantly contributed to where AI is at today and have enabled projects such as Bert and GPT-3/4 to come to life. Yet even industry leaders like Google must remain vigilant and agile to stay ahead in the fast-paced AI race. Their journey, while just one example of many, underscores the importance of continuous innovation and adaptability in maintaining a competitive edge and capitalizing on one's own innovation.

## Thought 6: Unlikely Allies Are Creating a New Gameplay

# NEW ALLIANCES FORGE UNCHARTED DOMAINS



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Strategic decisions and partnerships, beyond sheer speed and resources, have shaped the AI landscape, highlighting the interplay among major players and the evolving competitive environment in the tech industry.

Examining the trajectories of OpenAI, Microsoft, and Nvidia reveals how pivotal milestones and maneuvers have positioned these companies as leaders in AI, today.

**OpenAI** transformed from a research-driven organization into an AI powerhouse with key developments including the launch of GPT-3 and influential partnerships. By making AI more accessible and collaborating with giants such as Microsoft and Apple, OpenAI has solidified its market position and advanced global AI capabilities. With Microsoft, OpenAI has forged an unusual partnership that resembles more of a friendly rivalry. This collaboration gives OpenAI access to all the compute power they need to train and run their models. Additionally, it offers distribution to enterprise customers by bundling OpenAI into Microsoft's Azure offering as well as Microsoft 365 Copilot. On the consumer front, OpenAI's partnership with Apple grants access to over 1.35 billion iPhone users.

**Microsoft's** early recognition of OpenAI's potential and its strategic integration of GPT models into its products and Azure cloud platform were game-changing moves.

This partnership not only provided OpenAI with essential resources but also gave Microsoft a competitive edge in the AI arena.

**Nvidia's** dominance in AI infrastructure is well-established, thanks to its early investment in high-performance computing. While researchers initially drove many of Nvidia's early AI use cases, today its growth is fueled by major players such as Tesla, Meta, Microsoft, Alphabet, and others, with estimates suggesting that these four players contribute close to 40% of Nvidia's revenue. However, Nvidia now faces increasing competition as industry players invest in developing their own chips and AI services, challenging Nvidia's once-unassailable position.

Meanwhile, the UAE has carved its own unique path in AI, mirroring the global trajectory where much of the early AI work was research-focused across various fields, including computational biology, robotics, and cybersecurity. Now, having moved beyond the research phase, the UAE is entering the early stages of the revolution phase, with a clear strategy and thoughtful partnerships. This shift is driven by a priority to capitalize on years of R&D investments made by various government entities. We will delve more into this in part 3 of this series.

# PART 2

# DECODING DYNAMICS

# FOR BUILDERS &

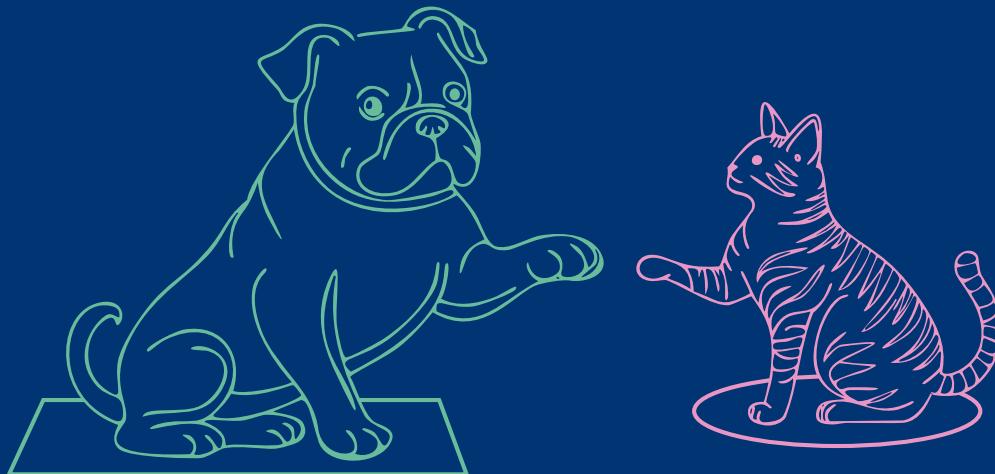
# BUSINESSES



## Coopetition.

### Why Regional Founders Must Unleash Its Untapped Power

## TAP INTO THE SPIRIT OF COOPETITION, GCC!



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**“Coopetition” is a highly relevant trend in the age of AI and GenAI, as players realize they need to rely more on each other.**

As a business strategy, coopetition involves forming strategic alliances to leverage complementary strengths, share resources, and achieve common goals, while still maintaining competitive aspects in other areas. While coopetition is necessary today, it will eventually give way to intense competition as companies develop their own capabilities. This will be a long marathon, and with big tech companies now operating with startup-like agility, maintaining a lead will prove more challenging than gaining one.

The implications are significant for global AI companies but particularly so for founders in our region. Despite the regional tech and venture capital ecosystem flourishing in recent years, a glaring lack of cooperation and coopetition among founders persists, making it hard for their businesses to scale efficiently. This inflates customer acquisition and retention costs, leading to unsustainable competition among numerous companies targeting the same customers.

We have long advocated for mid-market consolidation, yet a cultural shift towards genuine collaboration among founders is still needed, though many founders still resist this concept. In the context of AI, at the sovereign level we have seen large-scale B2G and B2B partnerships with specific entities in the UAE and KSA. Such partnerships have paved the way for excellence and rapid innovation, and we will showcase these in the next piece of our four-part series. For AI-first companies to flourish in the region, a mindset of coopetition must become part of the cultural norm among founders.

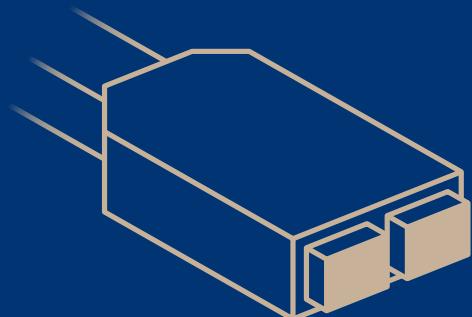
#### **AI is Going Mainstream Before Product-Market-Fit. What Does this Mean Today?**

AI's mainstream adoption, while exciting, has also brought about significant implications for critical strategic decisions. The sheer velocity of innovation has led to considerable uncertainty for companies and founders alike. In response to this complex and metamorphic landscape, we've identified three competitive considerations that we believe are worth spotlighting.

# TO BUY OR TO BUILD?



Build your own



Plug & play

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## Competitive Consideration 1:

### Build Where It Matters

In periods of slow technological evolution, building new products, features, or platforms in-house often made more sense than buying existing solutions. This was because specific capabilities and innovations were typically unavailable on the market, and there was no immediate threat of disruption. However, the advent of GenAI and LLMs has fundamentally altered this landscape, turning the traditional buy vs. build decision on its head. With the rapid advancements in AI, exemplified by each iteration of models like GPT from OpenAI, technological capabilities are evolving at a breakneck pace. This acceleration makes it crucial for product teams, tech leaders, C-suite executives, and founders to continuously reevaluate their strategies. The threat of imminent disruption is now a constant.

**Strategic Implication:** This accelerated pace of innovation means that the concept of buy vs. build should be at the forefront of every tech entrepreneur's mind. Companies that choose to build their own AI capabilities may struggle to keep up with the rapid advancements and scalability offered by specialized AI providers. Conversely, those that opt to integrate cutting-edge AI solutions, like GPT-4o, can rapidly enhance their products and services, staying ahead of competitors who may be slower to adopt. For instance, integrating pre-built AI solutions can provide immediate access to sophisticated natural language processing,

enabling features such as advanced customer support chatbots, personalized marketing, and automated content creation without the time and resource investment required to develop these capabilities internally.

As such, the ability to make informed buy vs. build decisions is now a critical factor in maintaining competitive advantage in the fast-evolving tech landscape driven by GenAI and LLMs.

We categorize this decision-making framework into two primary approaches:

**1. Inward Focus: Leveraging GenAI internally to enhance operational efficiency, drive revenue growth, and optimize costs.**

**2. Outward Focus: Empowering clients to adopt an inward focus by providing them with GenAI-powered solutions.**

The breakneck speed of AI innovation cycles presents a significant challenge for enterprises today. IT teams and CIOs, who typically plan three to five years ahead, find their traditional procurement cycles disrupted by the swift advancements in Generative AI. There's a

growing concern that products or solutions purchased or renewed today may become obsolete within just two years. This creates a dilemma: organizations need to invest in AI capabilities to stay competitive, but they also need assurance that their investments won't be rendered irrelevant by the next paradigm shift in AI technology. Consequently, decision-makers are increasingly cautious about allocating additional spend, seeking solutions that can adapt to the evolving AI landscape and provide long-term value despite the rapid pace of change.

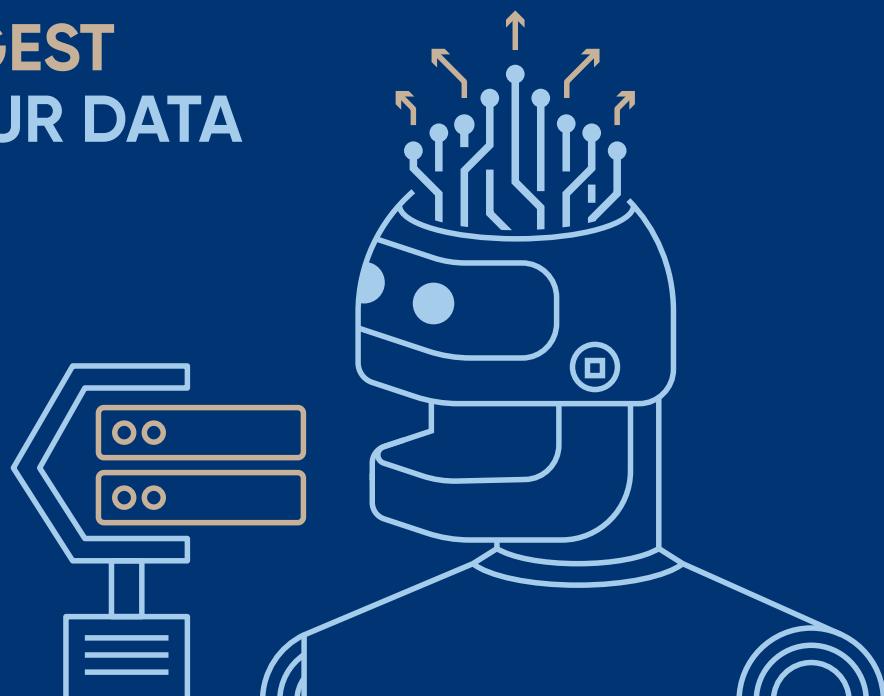
### **Competitive Consideration 2: Get Your Data House in Order**

The pace of improvements in LLMs is slowing as companies exhaust all the readily available data on the entire Internet, resulting in models and applications becoming more commoditized over time. Hence the need for proprietary data, which companies are now willing to pay a premium for. According to the IDC, only one to two percent of the world's data is accessible on the Internet, so accessing the remaining percentage is critical to enhancing the intelligence of such systems and AI as a whole. As a result, OpenAI and others have signed numerous multi-year agreements with groups such as News Corp, Associated Press, Reddit and Axel Springer to access their current and archived content to continue training their models to improve. Others, such as Blackrock, are acquiring alternative markets data providers, exemplified by their recent \$3.2b purchase of Preqin.

With all LLM players racing towards Artificial General Intelligence (AGI), accessing deeper datasets is of the utmost importance. A new emerging trend, which has drawn its fair share of criticism, is the use of synthetic data to augment the training of models. On the one hand, you get the benefit of cost efficiencies, the ability to simulate rare or extreme scenarios that are considered edge cases and the broadening of available datasets. On the other hand, bias and hallucinations are typically much higher with synthetic data and the edge cases might be so unrealistic that it would not have any implications in the real world. Builders should always explore new data sources, including synthetic data, but an overreliance on this might end up significantly degrading the quality of models. Proprietary data is a cornerstone of AI success. The quality and uniqueness of data inputs critically impact the quality of AI outputs.

**Proprietary data allows AI systems to generate more precise insights, tailor solutions to specific needs, and maintain a competitive edge by leveraging information that is not accessible to others.**

## **DIGEST YOUR DATA**



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This advantage becomes crucial as businesses strive to harness AI's potential to drive innovation and efficiency. While proprietary data has always been crucial for data science and predictive modeling, the rise of GenAI has amplified its importance. Unlocking the value of proprietary data suddenly became the highest priority for an increasing number of organizations.

**Strategic Implication:** Companies of all sizes, especially smaller and younger ones, should adopt a data-driven approach to build out their capabilities and harness the power of the data they already possess. Whilst many of those companies might not view their data as core, ensuring that they are able to transform it from "dark data" (collected but unused information) into actionable insights will give them optionality for the future.

At BECO Capital, we recognize the strategic importance of proprietary data. With 12 years of experience, we are well-positioned to properly leverage this asset. In 2022, we made the conscious decision of collecting and organizing our structured and unstructured data, with ongoing data acquisition. While we are still in the process of determining the full scope of applications for our proprietary data, our early efforts underscore our commitment to leveraging this asset to its fullest potential.

### Competitive Consideration 3: AI is Redefining How You Price and Profit. Be Ready, Be Responsive.

The evolution of revenue models in software has seen significant changes over the decades, driven by technological advancements and shifting customer expectations. Initially, software companies predominantly operated on a license-based model, which gained prominence in the 1980s and 1990s. Customers paid a one-time fee for perpetual use of the software, which was common in the early days of enterprise software when solutions were installed on-premises and required substantial upfront investment. Companies like Microsoft (with Windows and Office) and Oracle (with its database software) were key examples of this model.

As technology progressed and the Internet became more ubiquitous in the 2000s, the subscription model emerged, popularized by SaaS companies. This model provided customers with ongoing access to software for a recurring fee, typically monthly or annually, enhancing affordability and scalability. Salesforce and Adobe are prominent examples of companies that successfully transitioned to this model.

More recently, in the 2010s, consumption-based pricing gained traction, where customers are charged based

## REVENUE MODEL SHIFTS MEAN FLEXIBILITY



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on their actual usage of the software, offering greater flexibility and aligning costs with value received. This model is often used by Cloud Service Providers (CSPs) as well as cloud observability (monitoring, analyzing and troubleshooting) and infrastructure companies, where users pay for the services they consume.

**Strategic Implication:** With AI, we anticipate another significant shift in revenue models, potentially moving towards outcome or savings-based pricing. We are intrigued by this shift and have discussed it extensively within our network over the last several months.

**AI can deliver immediate and measurable benefits, such as cost savings, increased revenues, and improved efficiencies, directly tied to the value it provides.**

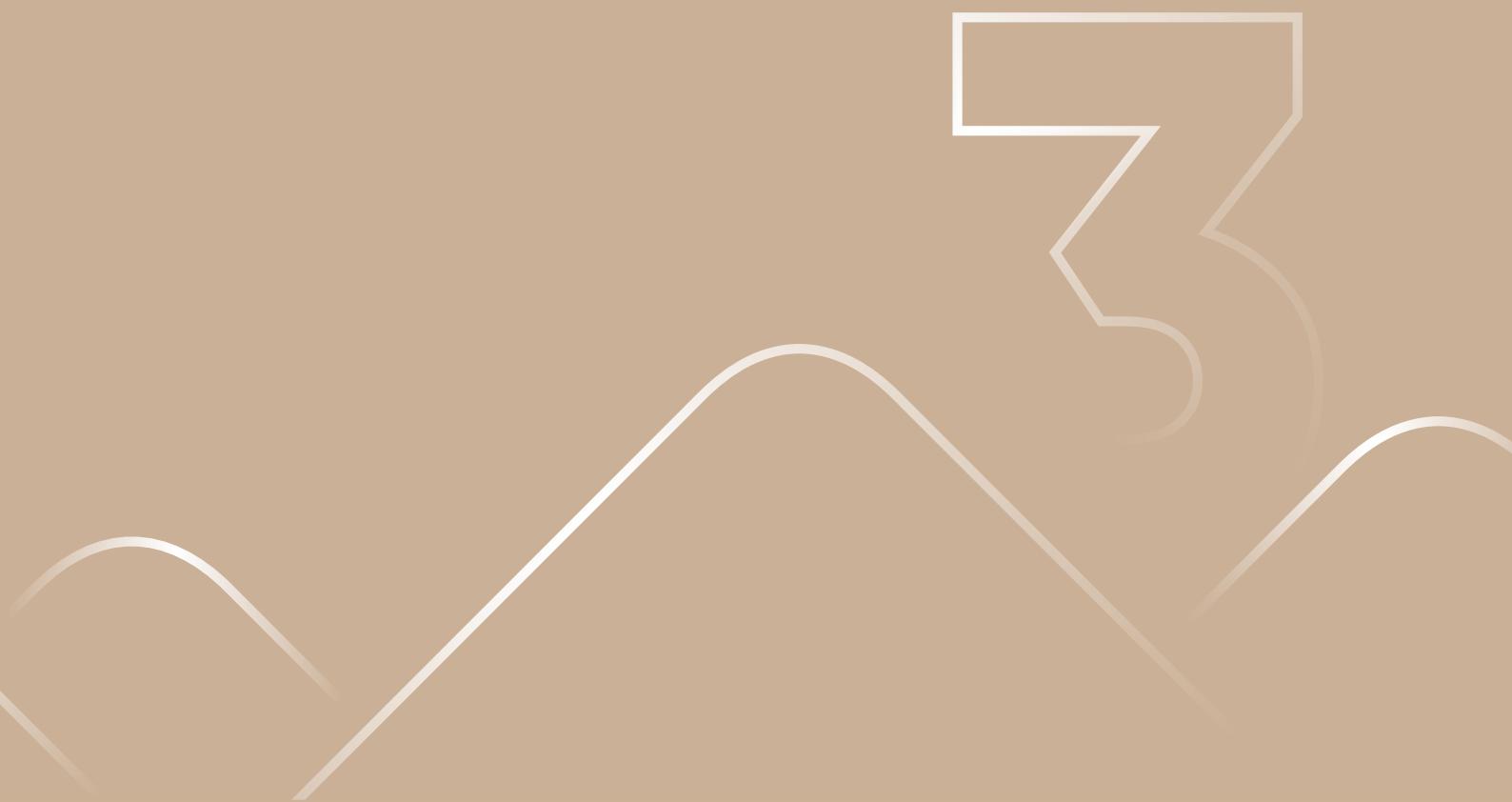
This approach mirrors the business model seen in the solar industry, where vendors often share in customer savings. For example, SolarCity (now part of Tesla) might install panels at no upfront cost and then share in the energy savings realized by the customer over time. This model gained popularity in the late 2010s and early 2020s as renewable energy solutions became more widespread.

Similarly, AI companies could charge customers based on tangible outcomes. For instance, if an AI solution reduces operational costs by 20%, the provider could receive a percentage of those savings as payment. This incentivizes them to deliver real value and align their success with their customers. Moreover, it also accelerates customers' payback, offering immediate benefits without the need for large upfront investments. This innovative revenue model could redefine how technology companies monetize their products, ensuring that the benefits of AI are accessible and impactful across various industries.

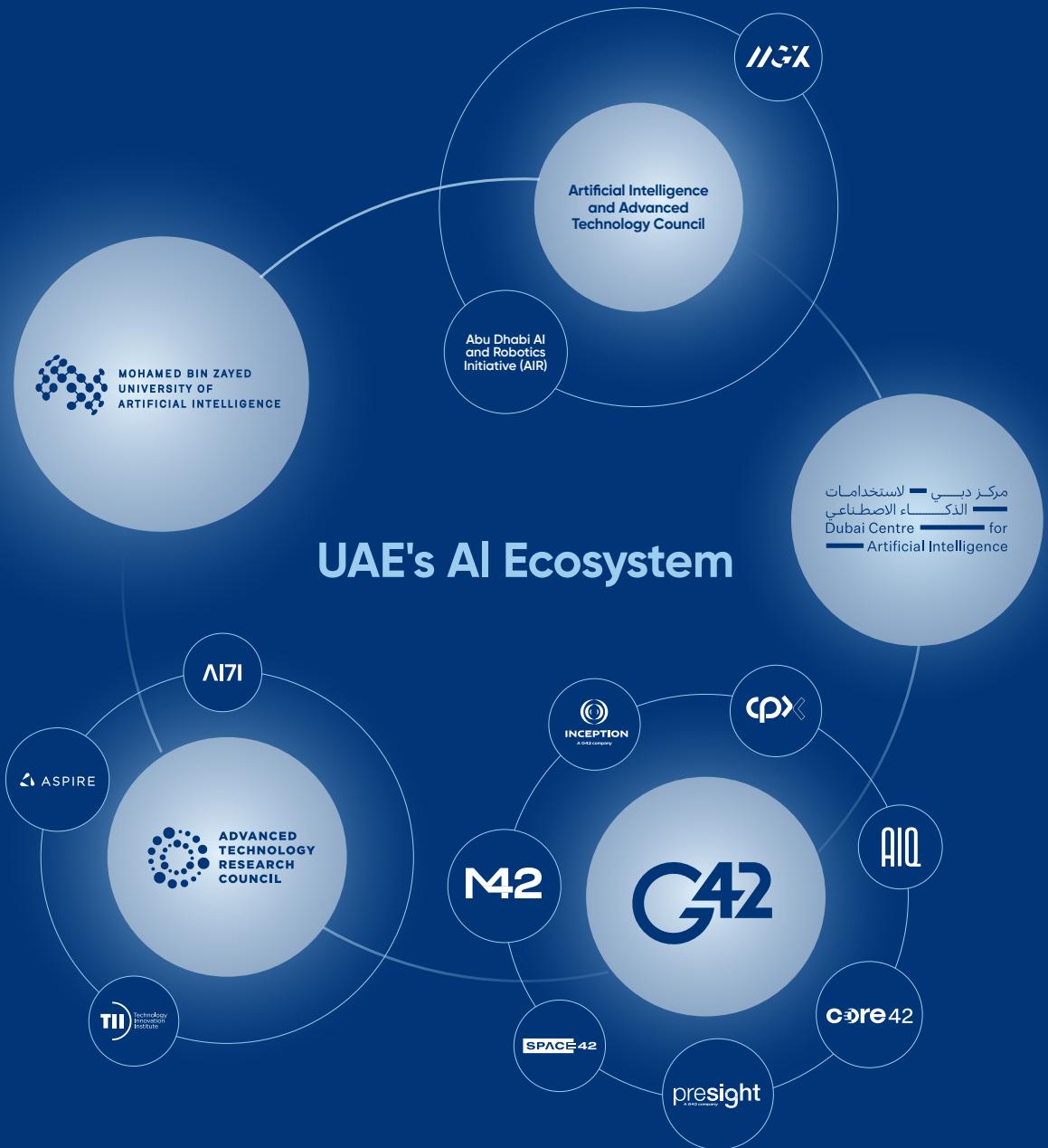
On the other hand, one can argue that if the positive effects of AI are so quick and significant, customers might prefer to continue paying for seats or consumption to capture 100% of the value. We believe that over time, different customers will have different preferences, with some opting for a combination of both models. Therefore, founders need to be flexible with their revenue models and find ways to personalize them based on each customer's needs.

# PART 3

# HOW GCC PIONEERS ARE USHERING IN A NEW WAVE OF INNOVATION



## The United Arab Emirates AI Universe



# 1. United Arab Emirates

## 1.1 Historical Foundation and Vision

### 1.1.1 Early Strategic Initiatives

The UAE's journey into AI began in earnest in 2017 with two groundbreaking initiatives: the appointment of His Excellency Omar bin Sultan Al Olama as the world's first Minister of State for Artificial Intelligence, and the launch of the UAE Strategy for Artificial Intelligence 2031.

These moves underscored the UAE's commitment to becoming a global AI leader and set the stage for a cascade of innovative developments. The strategy established a comprehensive blueprint for positioning the UAE as a global hub for AI research and development, with a clear focus on attracting top AI talent and fostering collaboration between academia and industry.

Since 2017, the UAE has meticulously assembled the building blocks to transform itself into an AI-first nation. Given the dynamic nature of AI technology (as explored in Part One and Part Two), this systematic approach represents a remarkable achievement.

**The UAE's vision centers not on simply adopting AI technology but on becoming the world's most prepared nation for the AI era.**

This emphasis on preparedness reflects a deliberately measured approach, highlighting the UAE's thoughtful and intentional path from research to implementation and monetization. It also cements the UAE's position at the forefront of sovereign AI internationally, placing it well ahead of established global peers.

### 1.1.2 Decades of Insight Light the Way

While 2017 marked the formal launch of the UAE's AI strategy, the nation's technological foresight and strategic investments trace back to the early 2000s, laying crucial groundwork for today's AI initiatives.

A decisive moment came in 2007 with Mubadala's acquisition of an initial 8.1% stake in AMD (boosted to 19.3% the next year), followed by the creation of GlobalFoundries in 2009; a spin-off from AMD's

semiconductor manufacturing business. These investments weren't merely financial plays; they represented the UAE's early recognition of technology's critical role in shaping the future global economy. Though neither AMD nor GlobalFoundries established physical operations in the UAE, these strategic moves provided the country with invaluable insight into cutting-edge technological advancements and industry dynamics.

This early involvement proved prescient, positioning the UAE to capitalize effectively on the subsequent wave of technological innovation, particularly in AI. The investment in foundational technologies such as semiconductors – crucial components for AI hardware – helped build the institutional knowledge and expertise necessary to understand and leverage AI advancements. These early ventures served as a learning laboratory, developing the muscle memory that would later enable the UAE to move swiftly and decisively in the AI space.

The lessons learned from these strategic investments enabled the UAE to rapidly adopt and integrate AI technologies across various sectors, from smart cities to healthcare and government services. Moreover, many of the individuals who were involved in the AMD transaction now lead many of the UAE's AI investment entities. This historical context helps explain the sophistication and well-placed confidence with which the UAE has approached its AI initiatives since 2017, building upon two decades of technological investment and learning.

This combination of early strategic investments and focused research initiatives has created a powerful foundation for the UAE's AI ambitions. The foresight to engage deeply in the AI ecosystem well before it became a global priority is now paying significant dividends. Today, the UAE stands not merely as an adopter of AI technology but as an influential leader capable of both deploying sophisticated AI solutions and helping shape the global AI agenda. The nation's journey from technology investor to AI pioneer demonstrates how visionary leadership and systematic execution can transform ambitious goals into technological leadership.

## 1.2 Ecosystem Development

### From vision through to application, the UAE has transformed its AI ambitions into actionable research capabilities and internationally acclaimed innovations.

The UAE's AI ecosystem revolves around three key pillars, encompassing academia (MBZUAI), research and commercialization (ATRC, G42), and infrastructure investment (AIATC). We'll spotlight these core nodes, while acknowledging the valuable contributions of other entities actively engaged in relevant research and innovation.

#### 1.2.1 Academia & Research

The cornerstone of this academic ecosystem is the Mohamed bin Zayed University of Artificial Intelligence (MBZUAI), established in 2019. As the world's first graduate-level university dedicated exclusively to AI, MBZUAI exemplifies how the UAE has moved beyond policy frameworks to create specialized institutions that drive innovation. MBZUAI stands out for its remarkable concentration of global AI talent across key disciplines, comparable to leading institutions worldwide. The university is broadening its academic scope with the addition of new departments, each led by renowned experts in their fields. For example, Professor Elizabeth Churchill, formerly Senior Director of UX at Google, now heads the Human-Computer Interaction Department. In 2023, the university launched the MBZUAI Incubation and Entrepreneurship Center (MIEC), the region's first AI-native incubator. MIEC recently announced its AI Mentors Network, which includes BECO Managing Partner Abdulaziz Shikh Al Sagha. As Abu Dhabi continues to cement itself as a hub for AI, we at BECO are excited about the future founders who will emerge from MBZUAI and are pleased to work closely with them to help solidify this vision.

This academic foundation gained additional momentum with the 2020 establishment of the Advanced Technology Research Council (ATRC). Through its network of specialized entities – the Technology Innovation Institute (TII), ASPIRE, VentureOne, and AI71 – ATRC has created a comprehensive framework that transforms world leading research insights into market-ready solutions.

#### 1.2.2 Commercialization

The UAE's commercialization ecosystem is anchored by G42, which has emerged as a transformative force in AI development and deployment. Through its specialized subsidiaries, G42 demonstrates the UAE's ability to translate AI innovation into practical solutions across multiple sectors. This commercial foundation is further strengthened by ATRC's strategic approach to market development, providing a robust pathway for converting research breakthroughs into commercially viable applications while maintaining strong data sovereignty principles.

#### 1.2.3 Investment

The 2023 launch of the Dubai Center for Artificial Intelligence (DCAI) marked another strategic advancement in the UAE's AI ecosystem. DCAI serves a unique dual role; while advancing Dubai's position as a key AI hub, it also functions as a crucial regulatory and innovation bridge within the national framework. By establishing legislation, cultivating global partnerships, and developing national talent in coordination with other UAE initiatives, DCAI helps ensure that the UAE's rapid AI advancement proceeds within a robust regulatory framework.

The establishment of the Artificial Intelligence and Advanced Technology Council (AIATC) in 2024 demonstrates the UAE's evolution from strategic investor to architect of global AI development. Through AIATC's Abu Dhabi AI and Robotics Initiative (AiR) and its MGX investment vehicle, AIATC exemplifies a sophisticated approach to AI investment that prioritizes both technological sovereignty and global collaboration. This represents a strategic shift from traditional investment to ecosystem building, focusing on critical infrastructure, semiconductor development, and foundational technologies that will shape the future of AI development.



**ADVANCED  
TECHNOLOGY  
RESEARCH  
COUNCIL**



### 1.3 UAE's AI Ecosystems in Action

The UAE's AI landscape has given rise to four interconnected ecosystems stewarded by ATRC, G42, and AIATC, along with a specialized Large Language Model (LLM) network – each playing a distinct yet complementary role in advancing the nation's AI ambitions. Together, these ecosystems form a comprehensive framework that spans research, development, commercialization, and deployment of AI technologies.

#### 1.3.1 The ATRC Ecosystem

Building on its strong research foundation and early technological investments, the UAE's journey in AI has evolved through distinct phases, each marked by strategic developments and growing capabilities.

**The first phase focused on establishing research excellence and attracting world-class talent;** a phase that remains "always on". A cornerstone of this phase has been ATRC's Technology Innovation Institute (TII), which has successfully attracted some of the world's best researchers across 10 research centers, including AI and Digital Science, to drive applied R&D. By creating dedicated research institutions and fostering an environment conducive to innovation, the UAE successfully draws leading minds in AI and related technologies, especially talented researchers from Europe, Asia and North Africa. This approach marked a significant shift from being primarily a technology consumer, to becoming an active contributor and thought leader in global AI development.

**The second phase, currently underway, centers on commercialization and practical application**

**of AI technologies.** This evolution mirrors global AI development patterns but with a distinctive regional approach that emphasizes open collaboration and practical implementation. What sets the UAE apart is the speed and intentionality of this transition, supported by well-funded, coordinated entities working across the AI value chain. This is exemplified by the ATRC's commercialization strategy for the Falcon LLM; VentureOne, ATRC's commercialization arm, was established to bridge the gap between research and market application, whereas AI71 focuses on making advanced AI technology accessible while ensuring decentralized AI data control for enhanced privacy.

## The United Arab Emirates AI Universe G42 Galaxy



### 1.3.2 The G42 Ecosystem

Meanwhile, G42 has emerged as a powerful force in AI development and commercialization. Through its diverse subsidiaries including Core42, Presight, and M42, the company has established significant global partnerships and developed innovative AI solutions. Microsoft's \$1.5 billion investment in G42 in 2024 underscores the UAE's growing influence in the global AI landscape.

Core42, formerly known as G42 Cloud, provides the technological infrastructure and computing power that underpins advanced AI operations, while also developing specialized AI models like the Jais LLM (more on LLMs in subsequent sections). Presight leverages big data analytics and AI to transform sectors ranging from public services to sports analytics. In healthcare, M42 has pioneered AI-driven solutions for medical imaging, diagnostics, and personalized medicine, demonstrating the practical impact of AI in critical sectors. Within space, Space42 is an AI powered spacetech company that integrates satellite communications, geospatial insights and AI for global customers in over 150 countries.

G42's strategic vision extends far beyond regional borders, anchored by carefully cultivated global partnerships. In addition to its groundbreaking collaboration with Microsoft, G42 has forged alliances with leading technology players such as Nvidia, Qualcomm, and Cerebras. Notably, Cerebras - who recently filed for a US IPO - disclosed that 87% of its H1 2024 revenues were driven by its partnership with G42, thus underscoring the pivotal role G42 plays in the success of its partners. These collaborations have enabled critical knowledge exchange, accelerated innovation, and elevated the UAE's standing as a global hub for AI technology. By fostering these impactful relationships, G42 demonstrates how commercial enterprises can simultaneously advance cutting-edge technology, create economic value, and align with national AI ambitions.

## **Artificial Intelligence and Advanced Technology Council**

**Abu Dhabi AI  
and Robotics  
Initiative (AIR)**

**MGX**

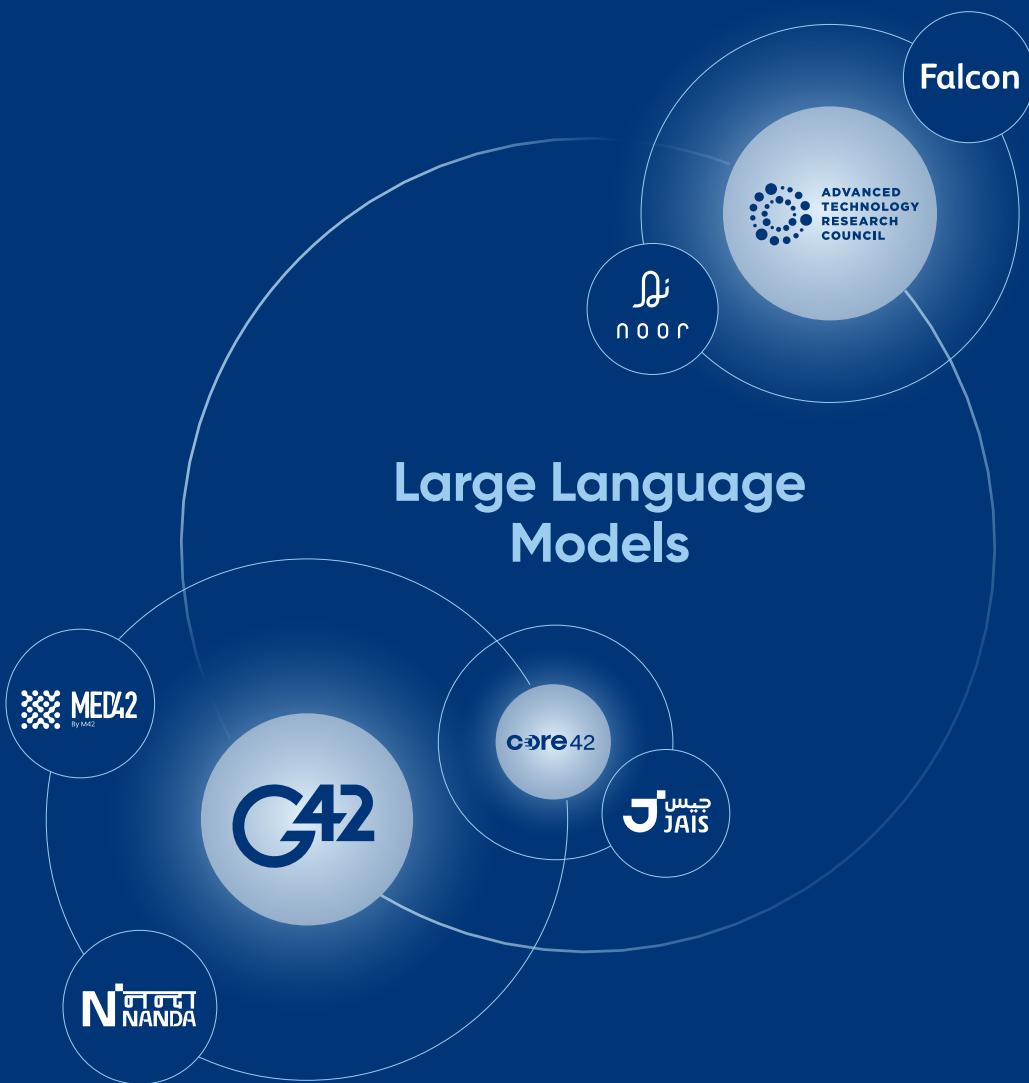
### **1.3.3 The AIATC Ecosystem**

The Artificial Intelligence and Advanced Technologies Council (AIATC), launched in January 2024, represents the next evolution in the UAE's AI strategy. Through its AiR initiative and MGX investment vehicle, AIATC aims to accelerate AI development across infrastructure, semiconductors, and core technologies.

With MGX targeting over \$100 billion in assets under management and leveraging partnerships with Mubadala and G42, MGX embodies the UAE's commitment to building a comprehensive AI ecosystem that spans fundamental infrastructure to high-impact

applications. This commitment was further demonstrated by MGX's participation in OpenAI's historic \$6.6 billion funding round – the largest venture capital deal ever – which valued OpenAI at \$157 billion as well as their \$500 million investment into Databricks' recent \$10 billion funding round (at a \$62 billion valuation). Alongside global technology leaders like Microsoft and NVIDIA, MGX's strategic investment reinforces the UAE's position at the forefront of global AI development and its ability to forge partnerships with industry pioneers.

## The United Arab Emirates AI Universe



### 1.3.4 The LLM Ecosystem

The United Arab Emirates has emerged as a leading force in the global Large Language Model (LLM) landscape, driven by strategic investments and partnerships between government entities, technology companies, and research institutions. The nation's AI ecosystem showcases a diverse portfolio of LLMs, each addressing specific market needs while advancing the UAE's position as a hub for artificial intelligence innovation.

TII has established itself as a key player through its Falcon family of LLMs, while equally significant contributions come from other major technology leaders across the ecosystem. G42's Jais model, which was born from the collaboration between Core42, MBZUAI and Cerebras stands out for its sophisticated bilingual capabilities in English and Arabic, addressing a critical need in the region's linguistic landscape. In the healthcare sector, M42's Med42 demonstrates the practical application of AI in specialized domains, while TII's Noor LLM advances the ecosystem's capabilities with its focus on Arabic language processing. Inception's Nanda LLM further demonstrates the UAE's global approach by specializing in Hindi language capabilities.

## SPOTLIGHT: The Falcon Family of LLMs

TII's development of the Falcon Large Language Models represents a landmark achievement in the UAE's AI journey. First unveiled in October 2022, the Falcon family has grown to include models of varying sizes - 180B, 40B, 7.5B, and 1.3B parameters - along with their high-quality REFINEDWEB dataset. The models' performance has been exceptional: Falcon 40B maintained the top position on Hugging Face's leaderboard for open-source LLMs for two months after its launch (in June 2023), while Falcon 180B achieved a remarkable score of 68.74 (in September 2023), making it the highest-scoring, openly released, pre-trained LLM; surpassing Meta's LLaMA 2 (67.35).

On December 18th 2024, Falcon launched their newest iteration of Falcon, with the unveiling of Falcon 3, focusing on small LLMs. Falcon 3 boasts enhanced reasoning capabilities and improved fine-tuning, positioning it as a more robust and practical AI solution that is able to run on lightweight systems, such as laptops. Upon launch, Falcon 3 secured the top spot on Hugging Face's global third-party LLM leaderboard, marking the second time the Falcon family of LLM has topped the global charts. Looking forward, TII announced their plans to embed multimodal functionalities with voice mode that will go live in the new year.

TII's strategic decision to make these models open-source has been transformative for the global AI community. This approach not only demonstrates the UAE's technical capabilities but also its commitment to collaborative innovation in AI development. The open-source nature of Falcon has enabled developers worldwide to access, study, and build upon these sophisticated models, accelerating global AI advancement.

## 1.4 Future Vision and Impact

### 1.4.1 Pioneering Foresight

The UAE's journey from strategic investor to AI pioneer demonstrates how visionary leadership, systematic execution, and commitment to open collaboration can transform ambitious goals into tangible technological leadership. Rather than simply being a technology adopter, the UAE has emerged as an influential player shaping the future of AI development and implementation.

### 1.4.2 Global Leadership Outlook

Looking ahead, several factors suggest the UAE's influence in global AI will continue to grow.

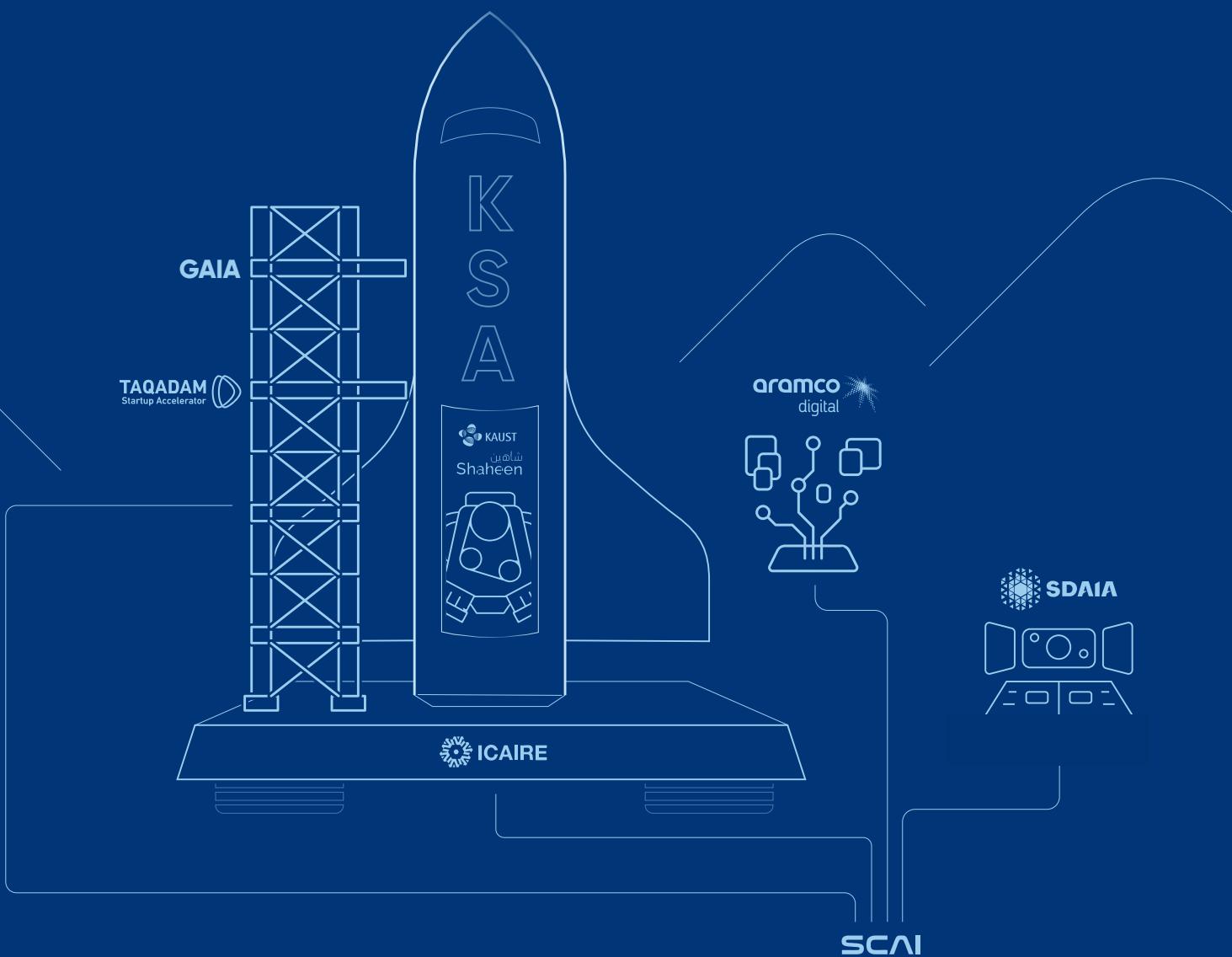
**The combination of strategic government support, robust research institutions, commercial enterprises, and a commitment to open-source collaboration creates a sustainable ecosystem for ongoing innovation.**

The ability to attract both global partnerships and world-class talent, coupled with the region's increasing reputation as an early adopter of AI technologies, provides a strong foundation for future advancement.

Moreover, the UAE's position at the crossroads of East and West, combined with its demonstrated ability to balance technological advancement with practical application, makes it well-suited to bridge different approaches to AI development. As AI continues to evolve and reshape industries globally, the UAE's forward-thinking initiatives and comprehensive ecosystem position it not just as a regional leader, but as a significant contributor to the global AI dialogue.

# The Saudi Arabian AI Ecosystem

## Building the Future



## 2. Saudi Arabia

### 2.1 Building a Rocketship on Its Way to AI Excellence

#### 2.1.1 Vision 2030 Integration

Like the UAE, AI is central to Saudi Arabia's transformative vision for the future, bridging its ambitious Vision 2030 with the emerging Vision 2050 framework.

**This vision reflects the Kingdom's recognition that AI is not merely a technological tool, but a fundamental driver of economic and social transformation.**

By integrating AI into the fabric of its economic framework, Saudi Arabia aims to achieve multiple strategic objectives:

- diversifying its economy beyond traditional sectors
- enhancing public services through digital innovation
- developing a skilled workforce capable of thriving in an increasingly technology-driven future

#### 2.1.2 SDAIA Establishment

A pivotal moment came with the establishment of the Saudi Data and Artificial Intelligence Authority (SDAIA) in 2019. It demonstrated the Kingdom's commitment to become a global leader in the AI era, and its understanding that successful AI integration requires dedicated governance and oversight.

SDAIA's creation marked the beginning of a new phase in Saudi Arabia's technological evolution, providing a centralized authority to drive AI initiatives across public and private sectors. This systematic approach to AI development, supported by significant investments and clear strategic direction, has positioned Saudi Arabia to compete effectively in the global AI landscape, while addressing specific regional needs and opportunities.

### 2.2 Structuring a Comprehensive AI Ecosystem

#### 2.2.1 Infrastructure Development

Saudi Arabia's systematic approach to AI development has yielded remarkable results in a short span of time. The Kingdom now ranks first globally in the government strategy pillar for AI, according to The Tortoise Global AI Index, and has surged to 14th place overall in international AI capacity, a dramatic improvement from its previous position of 31st. This rapid ascent reflects not just substantial government investment, but also the successful creation of a robust ecosystem of complementary institutions and initiatives. The Kingdom's progress is matched by strong public support: 75% of Saudi citizens demonstrate knowledge about AI, while 81% express optimism about its transformative potential across scientific and professional domains. According to the State of AI report, this positive sentiment mirrors growing confidence in AI's capacity to revolutionize key sectors of the Saudi economy.

SDAIA spearheads the Kingdom's AI ambitions with a mandate that extends far beyond traditional regulatory oversight. By consolidating over 8,700 datasets from more than 250 government and private entities into its National Data Bank, SDAIA has created a unified data ecosystem that enables AI-driven innovation at a national scale. This centralized approach has proven transformative; through its DEEM platform, which delivers 49 distinct services to over 180 government agencies, SDAIA has generated annual cost savings of approximately \$1.5 billion while dramatically improving service delivery and decision-making capabilities across the public sector.

## 2.2.2 Research Excellence

SDAIA has also established strategic partnerships with global companies like IBM and Microsoft to accelerate its research initiatives. These collaborations focus on developing Arabic-centric AI models and initiatives, including ALLaM, an open-source Arabic LLM designed to advance Arabic natural language processing.

King Abdullah University of Science and Technology (KAUST) stands as the cornerstone of Saudi Arabia's AI research infrastructure. Supported by a \$2 billion endowment, KAUST has attracted world-class talent including Jürgen Schmidhuber, a pioneer in deep learning and neural networks, and Bernard Ghanem, whose groundbreaking work in computer vision and machine learning is advancing the field of AI.

The university's commitment to cutting-edge research is exemplified by the recent launch of Shaheen III, the Middle East's most powerful supercomputer. With 21.2 petaflops of processing power, this facility positions Saudi Arabia at the forefront of computational research and AI development in the region.

The establishment of the International Centre for Artificial Intelligence Research and Ethics (ICAIRE) in Riyadh, in collaboration with the United Nations, further demonstrates Saudi Arabia's commitment to responsible AI development. This institution ensures that the Kingdom's technological advancement aligns with international ethical standards while contributing to global discussions on AI governance.

## 2.3 Implementation and Impact

### 2.3.1 Industrial Applications

The private sector's embrace of AI is reshaping traditional industries across the Kingdom. Aramco Digital, launched in 2023, exemplifies this transformation at an unprecedented scale. The company is driving digital innovation through proprietary platforms that push the boundaries of AI application in the energy sector.

Its multi-cloud platform Nawat provides advanced cloud computing services with built-in AI capabilities, while NourOS serves as a comprehensive AI operating system that enables everything from predictive maintenance to optimization of drilling operations.

The impact of these innovations extends beyond Aramco's operations; through strategic partnerships like its collaboration with Groq to build the region's largest inferencing data center, Aramco Digital is helping to establish Saudi Arabia as a powerhouse in industrial AI applications. This approach not only enhances the company's leadership in the energy sector but also contributes to the broader growth of the Kingdom's digital economy, through knowledge transfer and ecosystem development.

### 2.3.2 Economic Transformation

Complementing SDAIA's infrastructural and regulatory role, the Saudi Company for Artificial Intelligence (SCAI) serves as the Kingdom's implementation arm for AI technology. SCAI's strategic partnership with SenseTime, backed by a \$206 million investment, exemplifies its approach to accelerating AI adoption. Through this and other collaborations, SCAI is bringing advanced AI solutions to critical sectors: developing predictive healthcare systems that improve patient outcomes, creating personalized learning platforms that enhance educational effectiveness, and implementing smart city technologies that optimize everything from traffic flow to energy consumption. These practical applications demonstrate how Saudi Arabia is translating its AI investments into tangible improvements in citizens' daily lives.

## 2.4 Future Trajectory

### 2.4.1 Investment Initiatives

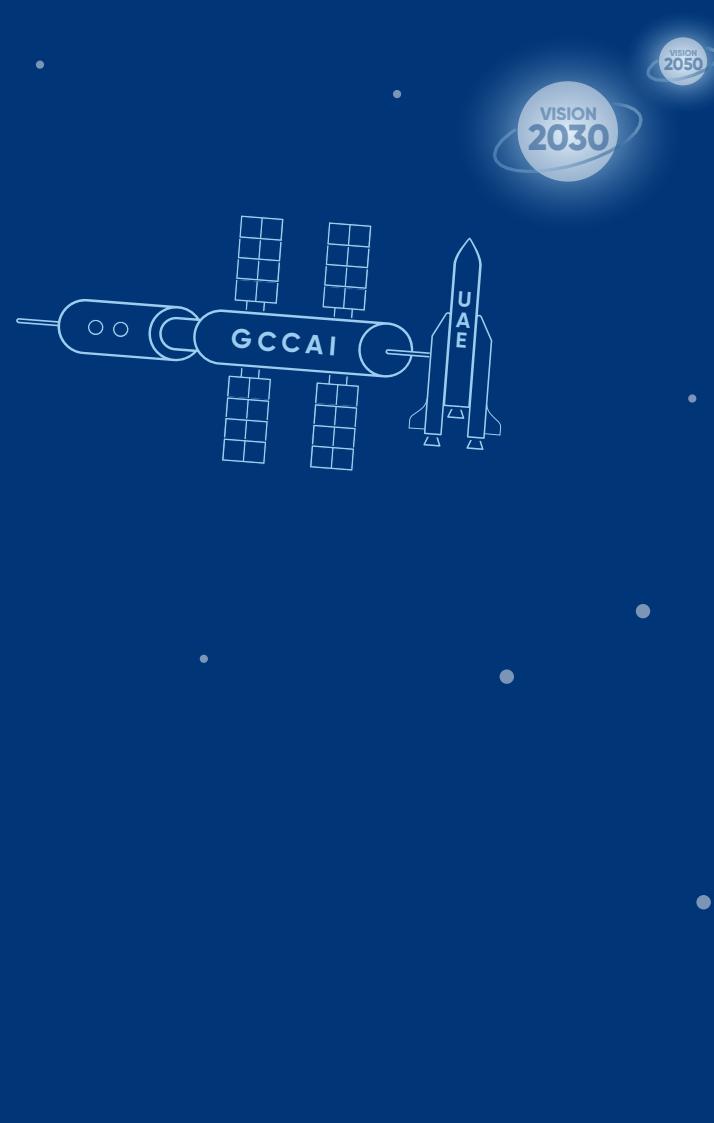
The Kingdom's commitment to nurturing AI innovation is perhaps most visible in its support for startups and entrepreneurs. The GAIA Accelerator, backed by a \$1 billion investment, is supporting AI startups across 19 countries, while KAUST's TAQADAM Accelerator provides substantial funding and mentorship to early-stage companies developing AI solutions.

### 2.4.2 Economic Projections

Looking ahead, Saudi Arabia's systematic approach to AI development is expected to yield significant economic benefits, with AI projected to contribute \$15 billion to the Kingdom's GDP by 2030. This impact will be driven by the integration of AI across key economic sectors, the development of new AI-enabled industries, and the creation of high-skilled jobs in the technology sector.

As Saudi Arabia continues to execute its ambitious AI strategy, the Kingdom is positioning itself not just as a regional leader but as a global force in AI development and innovation.

Through careful planning, substantial investment, and strategic partnerships, Saudi Arabia is building an AI ecosystem that balances technological advancement with ethical considerations and social impact, setting a new standard for AI development in the region and beyond.



### 3. Building an AI Future, Our Way

**The emergence of the United Arab Emirates and Saudi Arabia as AI powerhouses represents more than individual national achievements; it signals a fundamental shift in the global AI landscape.**

The nations have moved decisively beyond their traditional roles as technology consumers to become architects of the AI future, each bringing distinct yet complementary approaches to this transformation that will resonate through the region and beyond. They have thoughtfully taken advantage of their low cost base of energy infrastructure to focus on building AI infrastructure and clusters to power this next wave of compute intensive workloads.

The UAE's ecosystem-driven model and Saudi Arabia's centralized transformation strategy demonstrate how different paths can lead to technological leadership. Their combined momentum, backed by clear vision and unwavering commitment from forward-thinking leadership, suggests that the Gulf will play an increasingly pivotal role in shaping the next wave of AI innovation.

As our region continues to attract global partnerships, nurture local talent, and drive technological advancement, together, we are not just participating in the AI revolution – we are actively writing its next chapter. As early stage venture capital investors, BECO is very excited about participating in this new wave of innovation with deeply technical founders who will emerge from the region and build global solutions.

# PART 4

# A VENTURE FRAMEWORK FOR MENA VALUE CREATION



# Strategy in AI's Shifting Sands: A Venture Framework for MENA Value Creation

**The global AI landscape is evolving at breakneck speed. Almost every week, new market maps appear, only to become outdated just as quickly.**

We've all witnessed how generative AI has moved from a novelty to a mainstream catalyst, promising to upend long standing paradigms in software, services, and beyond. However, as early-stage, regionally focused investors, BECO Capital applies a disciplined lens to where and how we invest in AI. Not every space or stage aligns with our remit, particularly those requiring massive capital injections (such as AI infrastructure or specialized hardware). Instead, we concentrate on what we do best: identifying opportunities that can quickly benefit from operating leverage where we can help founders validate their products locally and then quickly scale globally once product-market fit is achieved.

## Refining Our Focus: Beyond Infrastructure

When most people think of AI, they envision large foundational models, high-performance computing, or physical infrastructure, such as advanced cooling technologies for data centers. While these areas may be attractive to growth and later-stage investors, they are less suited to our early-stage strategy. Foundational AI and infrastructure plays typically require significant capital, face intense competition, and often come with lofty valuations. There are certain opportunities we have been evaluating in infrastructure that are asset light and can quickly scale, although these are one offs and don't underpin our overall theses.

The recent shake-up of the AI space (credit to Deepseek) has prompted many builders to reconsider the fundamental "hows" and "whys" behind what they are creating. For founders developing products reliant on LLMs, this moment is akin to winning the lottery. The rapid cost reductions driven by Wright's Law (efficiency gains with scale), Moore's Law (hardware advancements),

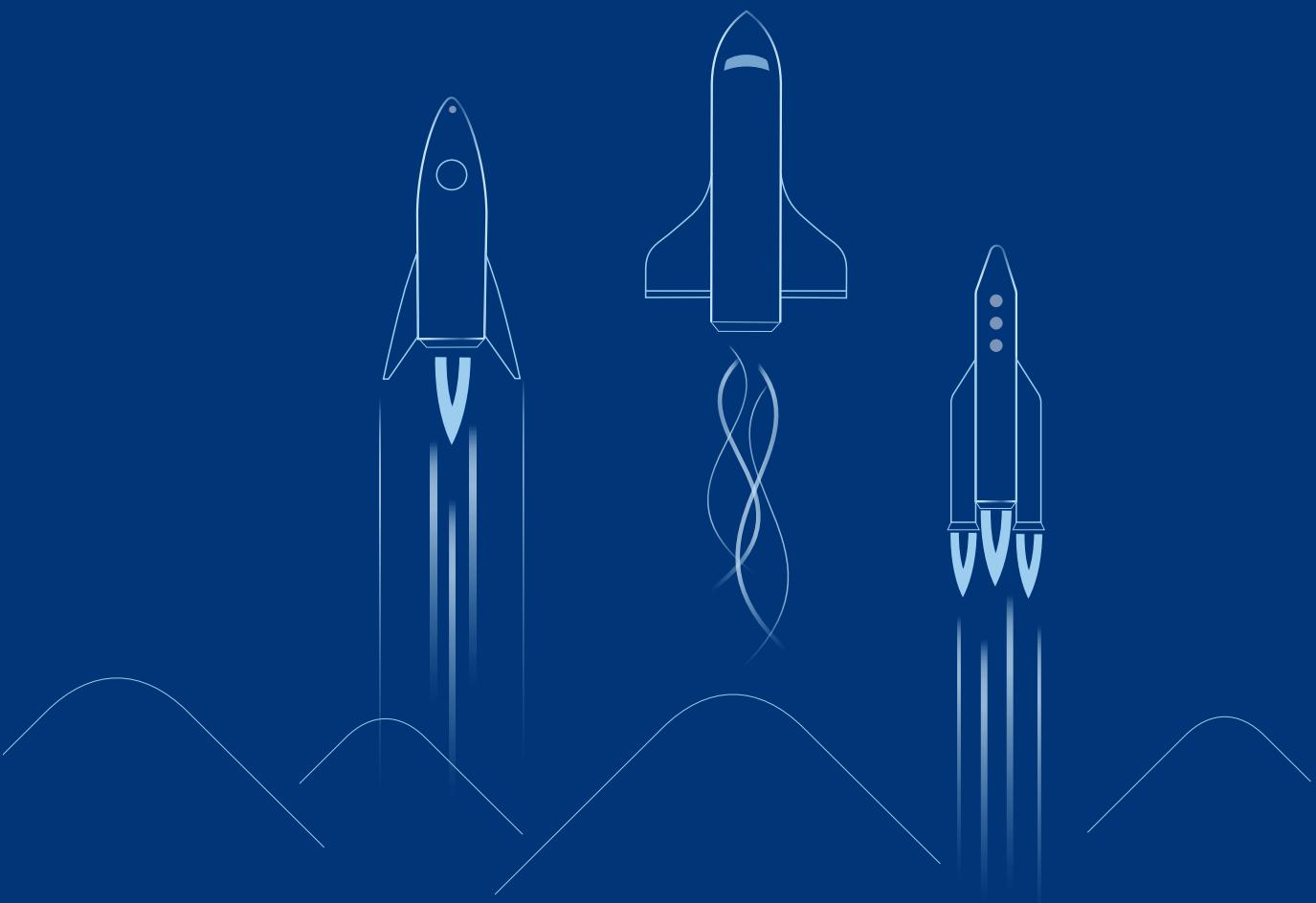
and the Experience Curve (software and inference optimizations) are transforming AI economics. As LLMs continue their deflationary trajectory, model usage is becoming significantly cheaper. This improves margins for companies that have historically spent heavily on compute, while also pressuring closed-source providers to lower costs and potentially open-source their models. We continue to believe in a hybrid future where open and closed source AI co-exist. However, for our fund size of \$120 million, foundational AI and infrastructure investments fall outside our scope – unless they buck the trend of capital intensiveness. Additionally, the regional market lacks the demand (outside of government), ecosystem maturity, and activity level necessary to sustain such capital-intensive ventures. The substantial funding requirements and extended timelines make them better suited for alternative financing models or larger, more developed markets.

Instead, we focus on companies solving clear pain points and leveraging AI to enhance customer outcomes. Much like the internet, AI will inevitably permeate every industry, and the most enduring solutions will come from startups with strong technical talent or proprietary data that enable them to wield AI effectively.

Our value lies in helping founders secure early customers, forge marquee partnerships, attract top tier talent, and build momentum, both regionally and beyond. Through our strong global network of AI specialists and leading venture capital funds, we provide founders with the insights, capital, and strategic guidance they need from smart money investors. This approach not only bridges the gap for emerging AI startups but also creates clear pathways for scaling into larger global markets.

By prioritizing application-level software, user-centric products, and specialized AI-enhanced services, we align with opportunities that are sustainable and capable of delivering venture-scale returns.

# FIRST MOVER ADVANTAGE OR DISADVANTAGE?



A phenomenon has emerged in the AI world: the perceived first-mover "advantage" can quickly become a disadvantage. Generative AI has rapidly become a focal point of the hype cycle, driven by a fear of missing out on the latest trend. However, the very nature of this fast-moving industry often undermines long-term defensibility. Switching costs are typically low, as users can easily migrate to newer, superior applications, and foundational models are frequently outpaced by rapid advancements.

While generative AI has undeniable potential, many companies struggle to sustain their competitive edge in the face of relentless innovation and minimal barriers to entry. For now, we have witnessed many global companies that have managed to scale from single digit millions in revenue to tens of millions in revenue in a matter of months – something to keep an eye on in terms of future continued velocity.

## 1. Speed and Solutions Beat AI Moats

Defensibility in generative AI is difficult to achieve. In our view, no single moat exists, true defensibility comes from multiple layers that, when combined, create a sustainable advantage. Questions like "How defensible is what you're building?" or "What's your moat?" are often difficult to answer and, frankly, overly simplistic. Defensibility is far more complex and dynamic. Instead, we focus on two core areas:

- First, we look at companies that aim to own the value chain, whether through processing power, foundational model innovation (which is becoming increasingly difficult), or network effects. This approach demands significant capital to establish scale-driven barriers and market dominance.
- Second, we prioritize businesses with clear value propositions that leverage proprietary data to solve specific, high-impact problems and demonstrate early signs of retention. These companies embed AI deeply into workflows, creating operational reliance and higher switching costs. Regardless of the approach, the defining factor is speed, how fast founders build, iterate, and sprint forward.

## Success in AI isn't about static advantages; it's about relentless execution.

Without this velocity, startups risk being outpaced by newer applications or better-funded competitors in an industry defined by rapid evolution.

Compounding these challenges is the increasing pressure from incumbents in "Big Tech," who are no longer stagnating but aggressively integrating AI into their product lines through internal R&D and acquisitions. Initiatives such as Google's DeepMind and Microsoft's Copilot are setting new benchmarks, making it increasingly difficult for early-stage startups to maintain a durable competitive edge. As part of our thesis, we closely evaluate whether a team has the capacity to outmaneuver Big Tech or position themselves as complementary players, rather than being overshadowed by these incumbents.

In the regional landscape, one of the most frequently cited moats for AI startups is their access to large datasets, particularly those focused on Arabic. With five major dialects and up to 100 regional variations, this localized data offers exciting opportunities for

specialization. However, we believe this advantage, while valuable, is not inherently unique or defensible on its own. Instead, it can be leveraged as part of a "coopetition" strategy, (see part 2) collaborating with Big Tech to enhance their models while building complementary, differentiated offerings that serve niche regional or linguistic needs. This approach allows startups to capitalize on their strengths while mitigating the risk of being eclipsed by larger players.

Our approach is to avoid the hype and back founders with pragmatic roadmaps, leaders who understand that true product-market fit and durable growth require more than fleeting short-term adoption. We prioritize companies that focus on defensibility through unique data assets, strong customer relationships, and differentiated capabilities, ensuring they can withstand inevitable churn and competition. By aligning with fundamentals and supporting companies built on sustainable foundations, we believe our portfolio will be well-positioned to deliver meaningful impact and long-term value in this rapidly evolving space.

## 2. Highly Paid Professionals and the Automation of 'Middle Tasks'

We're particularly excited about GenAI's potential to transform professions where experts rely heavily on pattern recognition and domain-specific knowledge. Lawyers, consultants, finance professionals and diagnostic specialists, for instance, often spend years training to interpret complex information, while delegating "middle tasks" like drafting documents, synthesizing research, or writing reports to support teams. Goldman Sachs's CEO, David Solomon, recently stated that AI can now draft 95% of an S1 prospectus in minutes versus a job that previously required a six-person team multiple weeks. The key takeaway here is that the remaining 5% still exists, where one finance professional (versus the previous six) can validate and refine the final output.

With GenAI, these middle tasks can be automated, allowing professionals to focus on higher-level decision making. The technology can learn from extensive historical data, surfacing real-time insights at a scale that outstrips any single individual. This reduces costs, shortens timelines, and often improves quality, making way for new service models.

### 3. Service as a Software: A Next-Generation Delivery Model

The rise of "Service as a Software" (SaaS<sup>2</sup>) represents a fundamental shift beyond traditional Software as a Service (SaaS) models. While SaaS transformed software delivery through cloud-based subscriptions, SaaS<sup>2</sup> reinvents complex professional services as intelligent software systems that can operate autonomously at scale. Consider a financial advisory platform that continuously analyzes thousands of small businesses' cash flows, automatically generates working capital recommendations, optimizes tax positions, and flags unusual patterns – all while integrating seamlessly with local payment systems and accounting software. These systems encode professional expertise and judgment into combinations of domain-specific algorithms and machine learning models, handling complex tasks that traditionally required significant human intervention.

The economics of SaaS<sup>2</sup> create unprecedented possibilities for service delivery. Unlike traditional services where scaling requires proportional increases in human capital, SaaS<sup>2</sup> platforms can expand through computational resources alone, with marginal costs approaching zero. What makes this transformative is not just automation, but the ability to deliver sophisticated services to previously underserved segments. Rather than a single financial advisor limited to 50-100 wealthy clients, a SaaS<sup>2</sup> platform can serve thousands of small businesses simultaneously with personalized analysis and recommendations, charging fees that would be uneconomical in a human-delivered model. While successful implementation requires careful consideration of domain suitability, quality assurance, and scope definition, the result is service delivery that's infinitely more scalable, consistent, and accessible.

### 4. Reimagining the User Experience: From Clicks to Prompts

We see significant advancements where AI enhances user experience (UX). Generative AI can transform static dashboards and menu-driven interfaces into natural language-driven systems that analyze data, generate insights, and automate actions. This aligns with the "three-click rule", which states that every additional user action increases drop-off rates. The same applies to enterprise software: when users must navigate endless menus, engagement declines. AI-first solutions eliminate this friction, driving usability and adoption. A strong

example is Pigment, a French enterprise planning and business intelligence platform.

In the GCC, the digitization gap remains stark. Many organizations still rely on Excel for critical processes or use horizontal ERP platforms that don't meet their needs. AI-first solutions offer a chance to bypass outdated workflows entirely. Adoption is especially promising where AI can handle complex tasks, such as customer service automation or inventory management, without clunky interfaces. We are also entering an era of unbundling, where consolidated platforms are being replaced by specialized applications, especially in hospitality and F&B, where AI enhances operations, and in the office of the CFO, where it improves financial processes.

The region's digitized government databases further accelerate this shift. With the UAE's mandatory e-invoicing launching on July 1, 2026, businesses will gain access to structured data that enables AI-driven efficiency and better decision-making.

# BECO Theses

## Harnessing Complexity With Wrappers and Integrations



### 5. Bridging Complexity and Connectivity: The Transformative Role of Wrappers and Integrations in AI

Wrappers and integrations are transformative concepts in the AI era, serving as critical bridges between complex systems and user-friendly functionality. Wrappers have historically acted as intermediary layers designed to simplify, extend, or modify software functionality without altering its core. They reduce complexity for developers and users alike, enhancing modularity, reusability, and accessibility. Integrations, meanwhile, address the challenge of interoperability by connecting disparate systems to enable seamless data flows and workflows. Together, these approaches play a vital role in making advanced technologies operationally viable, particularly in enterprises dealing with fragmented and siloed infrastructure.

The rise of generative AI and the proliferation of foundational models have brought renewed attention to the value of wrappers and integrations. AI systems are inherently complex, and wrappers abstract this complexity, making them accessible and practical for a broader range of users. As organizations increasingly adopt multiple AI models for specialized tasks, wrappers enable multi-agent orchestration, allowing seamless collaboration between models to automate workflows without users needing to manage intricate technical details. Simultaneously, integrations ensure these AI systems interact effectively with existing enterprise software like Salesforce, SAP, and ServiceNow, unlocking siloed data and generating unified, actionable insights that drive meaningful business outcomes.

It is often said that building wrappers is not worthwhile, but the AI age is proving otherwise. Companies like Cursor.ai, which scaled from \$1 million to \$100 million in

ARR in just one year (making it the fastest ever company to do so), demonstrate the potential of wrappers to unlock significant value. This is particularly relevant in the GCC, where businesses are rapidly digitizing but often rely on legacy systems ill-equipped to handle modern demands. Wrappers and integrations offer these organizations a pathway to leapfrog incremental improvements, enabling them to adopt cutting-edge AI capabilities without needing to overhaul their entire infrastructure. For example, startups specializing in wrapping AI around specific use cases, such as automating invoicing or streamlining customer service, can deliver immediate ROI. Similarly, companies building integration platforms that unify siloed data sources into cohesive workflows can fundamentally improve the operational landscape of enterprises in the region.

The urgency of regional digitization initiatives amplifies the opportunity for wrappers and integrations. Governments in the GCC are driving progress through mandates such as the UAE's upcoming e-invoicing system, creating fertile ground for startups to develop innovative solutions for these emerging needs. However, the rapid integration of AI capabilities by large incumbents like Salesforce and Microsoft narrows the window for startups to gain traction. This underscores the need for agile and focused solutions that deliver clear and measurable value, allowing startups to carve out defensible niches despite the growing competition. In this environment, wrappers and integrations are more than tools, they are enablers of the next wave of AI adoption. Wrappers simplify and enhance the usability of advanced systems, while integrations ensure connectivity and interoperability across complex enterprise ecosystems. Together, they unlock the full potential of generative and agentic AI by bridging the gap between technical complexity and practical application. Startups that innovate in these areas have the potential to reshape industries, particularly in markets like the GCC, where a combination of fragmentation and rapid digital transformation creates ideal conditions for growth. By focusing on usability, scalability, and ROI, these companies can build enduring value in a dynamic and rapidly evolving technological landscape.

## 5.1 New-Age GenAI Consultants

An emerging offshoot within AI is the "GenAI consultant", experts who help SMBs navigate the overwhelming landscape of AI tools, fine-tuning and integrating them into existing workflows. With the breakneck pace

of AI innovation and the continuous release of new applications, even tech-savvy organizations struggle to stay up to date. This challenge is not just about budget constraints; it's a talent gap. Very few professionals possess the expertise to track and master every relevant GenAI application that can meaningfully transform business operations.

This creates a compelling opportunity for well-structured consulting practices to step in, leveraging GenAI's efficiency to bridge the gap. A 10-person consultancy powered by AI could achieve the output of a 50-person team, automating workflows and unlocking new efficiencies that were previously unimaginable.

Additionally, the rise of domain-specific multimodal models, as opposed to purely general-purpose ones, enables more tailored workflows and deeper sector-specific insights. Just a year ago, digital GenAI transformations were constrained by high costs and limited customer interest. Today, we're seeing the perfect storm: customer readiness, world-class GenAI applications, and rapid innovation have converged; making AI adoption faster, easier, and more compelling than ever.

This trend is already taking shape with sub-verticalized consultants specializing in specific AI products. A great example is Clay, an exciting company that has sparked the creation of 90 boutique consultancies, each focused on teaching clients how to maximize Clay's capabilities. Now, envision a future where dozens of GenAI tools are consolidated under one roof, offering businesses seamless, end-to-end AI integration with hands-on support across industries. The potential for scalable impact is immense.

## 5.2 Reinvention of Managed Service Providers

An interesting offshoot of AI's evolution is the revitalization of Managed Service Providers (MSPs). Historically, MSPs were perceived as slow-moving third party vendors that primarily managed IT and cybersecurity systems for customers.

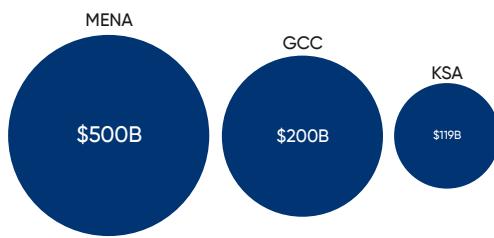
However, with the rise of SaaS<sup>2</sup> and the ability to rapidly develop in-house applications, MSPs can now layer AI-powered solutions and create customizable wrappers that enhance their service offerings. This shift positions MSPs as more than just IT service providers, they are evolving into AI-native enablers capable of building, managing, and selling sophisticated AI-powered applications.

Much like the rise of next-gen GenAI consultants, MSPs are undergoing a fundamental transformation, not just in their value proposition, but also in how the market perceives their role. The space is being redefined, making it a compelling area to watch.

## 6. Debt Collection in the GCC

Debt collection has long been a critical – yet challenging – aspect of the financial ecosystem, particularly in the Middle East. Traditional debt collection processes are often labor-intensive, relying on manual efforts and outdated communication methods, leading to high operational costs and a lack of scalability. Furthermore, these traditional approaches tend to focus on aggressive and intrusive tactics, damaging customer relationships and driving away potential future business. The unique cultural and regulatory landscape of the Middle East has only compounded these issues, as traditional collection agencies struggle to adapt and innovate within this context. As interest rates trend upward, non-performing loan (NPL) ratios are expected to rise even in the GCC's relatively stable markets. Despite relatively low NPL ratios in key markets like the UAE (7%) and Saudi Arabia (2%), these figures are expected to rise as interest rates increase. This trend, coupled with the region's growing consumer loan market (shown in the diagram below), creates an attractive landscape for digital-first debt collection services that are underpinned by AI.

MENA, GCC, and KSA: 2022 Total Value of Consumer Bank Loans



Source: CEIC data

We see a gap for digital-first AI solutions that handle outreach more strategically than legacy providers. The opportunity to act as a technology layer that stitches up numerous third party AI apps and packages them under one umbrella (akin to our earlier commentary on an AI wrapper) is an excellent way to tackle this problem. Companies like ClearGrid – a BECO portfolio company – illustrate how data-driven, automated engagement strategies can improve collection rates where traditional methods stall.

## 7. The Emerging Economy of AI Agents + The Importance of Domain Expertise

AI agents are rapidly becoming indispensable in automating workflows and enhancing decision-making, yet their presence remains largely invisible, operating silently behind the scenes. Often likened to virtual employees, these agents handle specialized tasks ranging from customer support to financial analysis. Just as human employees differ in skills, productivity, and adaptability, AI agents, too, vary in performance, intelligence, and versatility. This raises compelling questions: If agents are virtual workers, shouldn't some be more valuable than others? Could they be ranked, optimized, or even capitalized on as digital assets? And how are these agents governed, what happens if an agent makes a critical error or misstep?

To understand how we arrived at this inflection point, it's worth revisiting the evolution of agentic AI. The journey arguably began in 2005 with the founding of UiPath, which introduced workflow automation software and eventually pioneered the category of Robotic Process Automation (RPA). Over time, RPA evolved by incorporating successive layers of intelligence, shifting static automation into something far more dynamic. Enter the era of agentic AI, enabled by a confluence of advancements: purpose-built GPUs, the rise of LLMs, and, most critically, the advent of multimodal models. These innovations have unlocked the potential for agents to go beyond executing predefined workflows to emulating user logic and decision making. For example, Anthropic's Computer Use or OpenAI's upcoming Operator agent, slated for release in early 2025, exemplify this shift. These agents don't merely follow tasks; they break them into subtasks, access the necessary applications and databases, and synthesize outputs tailored to user needs, bypassing the technical constraints traditionally limiting automation.

The implications of this evolution are profound. When agents are augmented with domain-specific LLMs that are trained on proprietary datasets, their capabilities become both specialized and highly effective. This specialization enables agents to deliver results with unparalleled precision, outperforming general purpose solutions in targeted applications. Whether optimizing logistics, managing financial operations, or enhancing customer service, such agents can fundamentally redefine how businesses operate.

This leads to an exciting thesis: AI agents are inherently modular and diverse, allowing for differentiation based on their capabilities and outputs. Agents that excel in specific workflows, due to specialization, efficiency, or cost effectiveness, can become premium digital products. This opens the door to a new economic model where agents are treated as on-demand services, accessible via marketplaces, direct licensing, or API monetization. Such ecosystems could include mechanisms for ranking agents by performance, facilitating transparency and trust while enabling organizations to choose the best-fit solutions for their needs.

**By commercializing agents, we transition from viewing them as invisible tools to recognizing them as measurable contributors of economic value.**

This thesis is closely intertwined with the growing emphasis on domain-specific LLMs versus general-purpose ones. Specialized LLMs underpin the most effective agents because they are trained with a focused dataset, allowing them to master the nuances of a specific industry or function. This vertical focus makes them indispensable in contexts where precision and expertise are non-negotiable, reinforcing the need to invest in specialized AI infrastructure.

Ultimately, agentic AI and domain-specific LLMs herald a new era where AI systems don't just assist users but emulate and enhance their logic and actions. The potential for AI agents to evolve into digital assets that drive measurable economic value is immense, creating opportunities for innovation, monetization, and the redefinition of workflows across industries. By focusing on specialization and modularity, this new economy of AI agents could become one of the most transformative aspects of the AI revolution.

## 8. Agent-to-Agent Payment Rails

In the MENA region, the financial landscape is characterized by fragmented payment systems, diverse regulatory frameworks, and rapidly evolving alternative payment methods. AI-driven agent-to-agent payment rails, where autonomous AI systems facilitate transactions between devices, platforms, or entities, are uniquely positioned to thrive in this environment. This would involve dynamic payment routing where AI (through agents) can analyze real time payment traffic and route transactions via the most cost efficient and reliable networks, such as deciding between SWIFT, blockchain rails or local payment networks.

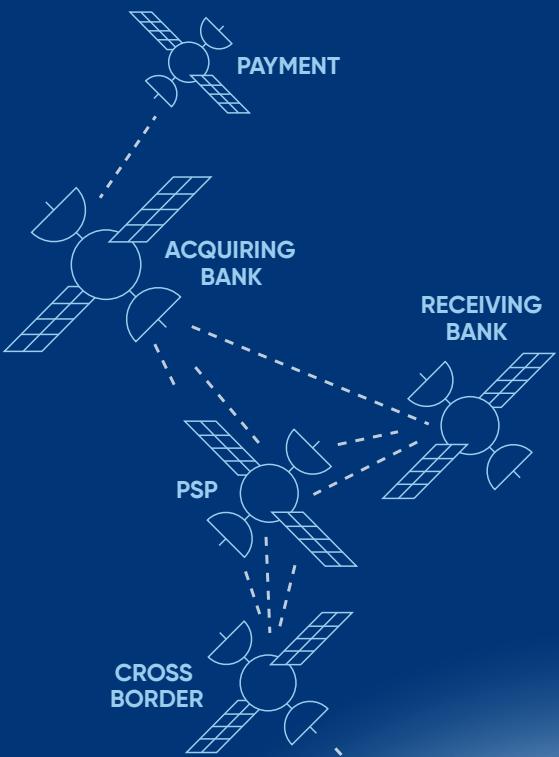
**Fragmented Payment Infrastructure:** The coexistence of global systems like Visa and Mastercard with local schemes like Mada (Saudi Arabia) and Meeza (Egypt), alongside the rise of digital wallets and buy-now-pay-later (BNPL) platforms, creates complexity. AI can act as an intermediary, seamlessly connecting these systems to enable frictionless transactions.

**Cross-Border Payments:** Given the high volume of cross-border trade and remittances in the region, AI-powered systems can optimize processes by handling currency conversions (either through fx or stablecoins such as the digital dirham), compliance checks, and transaction routing autonomously and in real-time.

**Regulatory Momentum:** Governments across the GCC are actively pushing for innovation in payments as part of broader economic reforms (e.g., Saudi Vision 2030). This creates a fertile ground for AI to redefine payment ecosystems, especially as financial institutions seek scalable solutions to meet these goals.

By addressing the specific challenges of fragmented systems and diverse payment behaviors, AI-enabled payment rails can deliver efficiency, inclusivity, and scalability, making them critical to MENA's economic transformation.

## LEGACY SYSTEMS



## INTELLIGENT RAILS

VS



## 9. AI-Driven Retail Optimization & Personalization

In a region where omnichannel retail is not just a preference but a necessity, AI-powered hyper-personalization has shifted from being an advantage to an imperative. Traditional predictive analytics have long shaped retail strategies, but the next frontier lies in seamlessly integrating AI across both offline and online ecosystems to create a truly connected customer experience.

For example, our portfolio company Kitopi is pioneering the first fully connected hospitality ecosystem, where customer preferences, ranging from eating habits to dietary restrictions, are consolidated and reflected across all touchpoints, whether ordering online or dining at one of their 200 physical locations across 70 brands. Real-time access to these insights empowers waitstaff to enhance customer experiences while reducing inefficiencies as companies scale. Similarly, our portfolio company Dtek is revolutionizing convenience store operations by optimizing throughput capabilities with an AI-powered self-checkout system. Leveraging computer vision, this technology eliminates queue times, significantly enhancing the customer experience. On the back-end, AI is also transforming retail operations. Portfolio companies like Supy are leveraging AI to optimize inventory management in the F&B industry, improving stock accuracy, minimizing food wastage, and driving operational efficiencies at scale.

**Beyond operational improvements, AI plays a crucial role in navigating the region's cultural and behavioral complexities.**

MENA's rich diversity means that consumer habits are shaped by language, tradition, and seasonality. For instance, Arabic dialects vary significantly across markets, requiring AI to hyper-localize customer interactions, from tailored product recommendations to language-specific marketing. This contextual intelligence extends to the retail calendar as well. Holidays like Ramadan, Eid, and National Days drive significant shifts in shopping patterns, but their impact differs by country, tradition, and timing. AI enables retailers to dynamically adjust pricing, promotions, and inventory to align with evolving consumer demand, whether it's optimizing supply chains for pre-Ramadan stockpiling or adjusting marketing strategies to reflect the cultural nuances of different celebrations. From customer engagement to inventory optimization, AI-driven personalization is redefining how retail operates in MENA, elevating both customer experience and business efficiency and we are excited about pure-play companies focusing on elevating the retail experience.

## Areas to Monitor

### 1. Arabic Language Solutions: A Complex Market

A final piece of our AI thesis concerns Arabic-language products, particularly speech-to-text and text-to-speech. The potential audience stretches across hundreds of millions of speakers, but reported TAM figures can be misleading. Dialect fragmentation complicates any attempt at a “one-size-fits-all” approach, and enterprise budgets for advanced NLP features may be smaller than anticipated. Meanwhile, global AI players (Google, Meta, DeepL etc.) are also launching Arabic models and product features, quickly crowding the space.

For these reasons, we’re cautious. While we remain committed to exploring AI that genuinely solves regional needs, we need to see clear evidence of scalability and stickiness before making an early-stage bet in Arabic-specific voice or NLP. Simply put, the upfront R&D and marketing effort needs to align with realistic revenue potential.

### 2. Project Management & Code Assistants

Another area with enormous promise is software development and project management. Companies like GitHub (Copilot) and GitLab, alongside new entrants like Augment, are pouring resources into AI-based solutions to automate code reviews, testing, and project triaging. Even Amazon, through its internal AI assistant “Q,” reportedly saved 4,500 developer years of work, translating to hundreds of millions of dollars in cost savings.

While these statistics are eye-opening, the competition is fierce. We find it challenging to pick a clear winner without seeing concrete defensibility, be it proprietary data, exclusive partnerships, or a unique user base that ensures stickiness over time.

## Looking Ahead

While the AI landscape presents notable opportunities and challenges, BECO Capital maintains a conviction for the transformative potential of AI in the region. Our thesis focuses on backing founders who combine technical excellence with pragmatic business models; particularly those leveraging the region’s unique advantages, while solving meaningful problems.

### What We Look for in Founders Building in AI

To build enduring AI-first companies, we look for founders who demonstrate:

**1. Experienced, Technical Leadership:** Ideally, a team with prior experience building and shipping products, coupled with a deep understanding of modern, AI-first tech stacks and product development.

**2. Original Thinking & Strategic Insight:** A unique, first-principles approach to strategy, combined with rapid execution capabilities, to build a resilient business and continuously adapt to the evolving tooling landscape.

**3. Extreme Execution Efficiency:** Whether led by seasoned or first-time founders, the best teams achieve outsized impact with minimal resources, accomplishing what would typically require a much larger team and more funding.

**4. AI-Driven Internal Leverage:** Execution is enhanced by strategic AI integration, significantly improving team efficiency compared to traditionally tech-enabled approaches.

**5. Unparalleled Speed of Iteration:** A fast, measurable, and demonstrable rollout process that operates at an edge-case level, making it difficult for even great teams to iterate at the same speed. This combination of strategy and execution creates defensibility.

**6. AI-First Go-to-Market (GTM) Approach:** Teams that leverage AI-native GTM strategies (e.g., using tools like Clay) to drive world-class Net Revenue Retention (NRR) and rapid payback periods.

**7. Depth & Strategic Alignment:** Every team member has domain depth and a clear understanding of why they are building in a specific way, ensuring alignment with the company’s overall strategy.

**8. Compounding Network Effects:** Whether through multi-AI agent coordination under the hood or proprietary data generation, the best teams build self-reinforcing moats that compound over time.

