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# Space Programmes and Diplomacy in the Gulf's National Visions Documents

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## Summary

- The Gulf region has undergone a remarkable transformation over the past decade, not only in its economic structure, but also in its long-term ambitions. The national visions adopted by Saudi Arabia, the United Arab Emirates (UAE), Bahrain, and Oman represent some of the most comprehensive strategic planning exercises undertaken by any group of states in the contemporary era.
- While their primary impetus was the need to reduce dependence on hydrocarbon revenues, these visions have gradually come to embrace a broader conception of what constitutes a knowledge-based, technologically advanced economy.
- Among the most telling indicators of this shift is the extent to which space – as a sector, symbol, and strategic enabler – has found its way into the language and logic of national planning.
- This Insight examines how and to what degree each of the four major Gulf national visions addresses space-related themes, drawing directly from the vision documents themselves.
- It argues that while there are significant differences in the depth and specificity of these documents, a clear regional pattern emerges: space is increasingly understood not as a luxury or a prestige project, but as an integral component of economic diversification, technological sovereignty, and long-term national competitiveness.
- Space programmes are increasingly inseparable from space diplomacy. Participation in frameworks such as the Artemis Accords, bilateral agreements with established space powers, and multilateral engagement through bodies such as the UN Committee on the Peaceful Uses of Outer Space and the Arab Space Cooperation Group functions as a force multiplier for national space ambitions.
- The Insight specifically analyses the UAE's space programme, which made significant space achievements even before its current national vision was formulated. Categorised under the 'Forward Economy' pillar, it identifies a core objective for the UAE to become a "global force in emerging sectors of the future, such as science and technology (e.g., the fourth industrial revolution, space exploration, and renewable energy)".
- Finally, the Insight offers the following policy recommendations to the Gulf governments:
  - » Revise national space policies – not vision documents – to acknowledge dual-use, security applications (early warning, ISR, secure satcom for command and control).
  - » Strengthen interagency coordination by bridging civilian space agencies (Saudi Arabia, UAE, Bahrain, Oman) with defence and national security establishments to manage dual-use systems already in use.
  - » Broaden industrial policy beyond satellite manufacturing into downstream segments – ground stations, data analytics, geospatial services – with higher value capture relative to capital intensity.
  - » Move beyond Artemis Accords signature toward a concrete lunar/cislunar mission and payload participation, converting alignment into technical experience.
  - » Expand bilateral cooperation with the US and other countries on early warning and missile detection architectures, preserving sovereign control.
  - » Institutionalise a standing GCC space security dialogue toward shared early warning and Earth observation architectures, reflecting a shared missile/UAV threat.

» Use space diplomacy as an economic diversification instrument, positioning Gulf states as investors, trainers, and eventual launch-service hosts for third country programmes in Africa and South/Southeast Asia.

» Create sovereign co-investment vehicles (e.g., Neo Space Group) for dual-use ventures, letting security-relevant capability advance without vision documents naming it explicitly.

## The Issue: Reading Vision Documents

National vision documents of each of the Gulf Cooperation Council (GCC) countries vary considerably in specificity. Oman's Vision 2040 is structured around detailed thematic priorities and strategic directions. Bahrain's Economic Vision 2030 is a shorter, principle-based document that establishes a philosophical direction without enumerating specific sectors. This variation has direct implications for how space appears – or does not appear – in these texts: a document that lists specific industries will naturally yield more explicit references than one structured at the level of guiding principles.

An equally important methodological note concerns the relationship between national visions and national security. The vision documents examined in this Insight are primarily concerned with economic transformation and civilian development; they do not, as a rule, speak openly about military applications or defence requirements. Yet a significant and growing proportion of Gulf space investment is driven by national security imperatives, including satellite communications for military command and control, Earth observation and reconnaissance for intelligence gathering and, in the future (probably as a lesson from the military clashes with Iran during Operation Epic Fury), early warning architectures for missile defence. These security dimensions operate as an implicit layer beneath the civilian language of the vision documents themselves, and any full account of Gulf space ambitions must acknowledge both measures simultaneously.

**Table 1: Comparative Overview**

| Country | National Vision | Space-Related References in the Vision Document |
|---|---|---|
| **Saudi Arabia** | **Vision 2030** | Space and aviation are explicitly listed as one of seven strategic sectors. The vision calls for building a sustainable national space sector and localising technologies through international cooperation. |
| **UAE** | **We the UAE 2031** | Space exploration is named explicitly under the Forward Economy pillar as an emerging sector of the future in which the UAE aims to become a global force, alongside the fourth industrial revolution and renewable energy. |
| **Bahrain** | **Economic Vision 2030** | No direct reference to space in the vision document. Space activities were subsequently aligned to the vision's three guiding principles through the National Space Policy of 2018. |
| **Oman** | **Vision 2040** | Space is explicitly designated as a "supporter and enabler of economic sectors". The Ministry of Transport, Communications and IT is entrusted with establishing the national space programme, developing space systems and satellites, and technology transfer. |

## The Artemis Accords: A Shared Normative Framework

All the four countries examined are signatories to the Artemis Accords, the non-binding framework for civil space cooperation launched by NASA and the US Department of State in October 2020. The UAE was among the eight founding signatories; Bahrain signed in March 2022, becoming the third Middle Eastern country to do so; Saudi Arabia followed; and Oman became the 61st signatory in January 2026. Grounded in the Outer Space Treaty of 1967, the Accords establish shared principles for peaceful exploration, transparency, data sharing, and the responsible use of space resources. For the four Gulf states, accession signals more than procedural alignment: it anchors their national space ambitions within a US-led coalition of like-minded nations, reinforcing the international partnerships that all four visions either explicitly or implicitly identify as essential to their space goals.

## Saudi Arabia: Vision 2030 and the Strategic Imperative of Space

Saudi Arabia's Vision 2030, launched in 2016 under the leadership of Crown Prince Mohammed bin Salman, is the most far-reaching reform programme the Kingdom has ever undertaken.[1] Its central premise – the transition from an oil-dependent economy to a diversified, knowledge-intensive one – is articulated through three pillars: "Vibrant Society", "Thriving Economy", and "Ambitious Nation". It is within this framework that space emerges as a named strategic priority.

The King Abdulaziz City for Science and Technology (KACST) identifies space and aviation as one of seven areas of fundamental strategic importance within Vision 2030's goals, alongside digital technologies, urban transformation, and logistics services.[2] The KACT report on Saudi vision 2030 states that it calls for establishing a strong and sustainable national space sector and the transfer and localisation of technologies through cooperation with international partners. This framing is significant: space is not presented as an end, but as a means for broader economic goals: job creation in high-skill industries, the development of an indigenous technology base, and the reduction of dependence on imported systems and services.

The institutional response to this vision has been substantial. The Saudi Space Agency was established by Royal Decree in 2018, consolidating previously fragmented activities across KACST and other bodies into a single national authority. The Public Investment Fund's creation of the Neo Space Group in 2024 signalled the Kingdom's intent to move beyond procurement toward genuine domestic industrial capability. By 2024, Saudi Arabia's space economy was valued at approximately $8.7 billion, with projections suggesting growth to $31.6 billion by 2035 – a trajectory that reflects the seriousness with which Vision 2030's strategic intent is being translated into investment.[3]

It is worth noting that Vision 2030's civilian and economic framing of space runs alongside a parallel security dimension that the vision document itself does not articulate openly. Saudi Arabia is undertaking various initiatives to develop dual-use space systems to be implemented for national security within both armed forces and the private sector.[4]

## The UAE: Space as a Pillar of the Future Economy

The United Arab Emirates (UAE) occupies a unique position in this analysis: it is the only Gulf state that already had significant space achievements before its current national vision was formulated. The Hope Probe's[1] successful arrival in Martian orbit in February 2021, making the UAE the fifth country in history to reach Mars, preceded the launch of 'We the UAE 2031' by more than a year. In this sense, the vision was written in the shadow of a demonstrated capability rather than an aspiration.

The We the UAE 2031 document, launched in November 2022, addresses space directly.[5] Under the Forward Economy pillar, it identifies a core objective for the UAE to become a "global force in emerging sectors of the future, such as science and technology (e.g., the fourth industrial revolution, space exploration, renewable energy)". This is significant for two reasons: it names space exploration as a concrete example – not merely a metaphor – the kind of future-facing sector the UAE intends to lead, and it frames the ambition in explicitly competitive terms: the goal is not just participation but also global leadership.

What distinguishes the UAE from its regional peers, however, is that the national vision is not the most detailed official document articulating the country's space ambitions. The UAE National Space Policy, published in 2016,

[1]Hope is an Emirati mission launched to study the atmosphere of Mars. The mission is a great success and the first deep space mission in the Arab World.

constitutes a comprehensive standalone strategic framework that translates the vision's aspirations into specific goals, principles, and governance structures.[6] It articulates five goals: expanding space utilisation to support vital national sectors including security, disaster management, and telecommunications; developing a sustainable commercial space industry linked to knowledge-intensive employment; conducting scientific missions (like the Emirates Mars Mission, "Rashid" lunar rover, and the Emirates Mission to the Asteroid Belt); promoting a safe and stable space environment; and establishing UAE leadership as a regional hub for space business and activities.

In practice, the UAE has effectively employed commercial satellite technologies for national security and applied dual-use systems for defence purposes. It is developing dual-use capabilities with security usages that are particularly focused on satellite communications, optical imaging, and synthetic aperture radar.[7,8] It has also pioneered mobile ground stations and quantum communications technologies resistant to electronic interception. The 2018 agreement with NASA[2] proved pivotal for astronaut training and knowledge transfer; the partnership with JAXA (Japan Aerospace Exploration Agency) enabled the Hope mission launch from Tanegashima, Japan, in 2020; and the UAE-CNES (Centre national d'Études Spatiales) partnership illustrated how space collaboration both reflects and reinforces broader strategic relationships.[9] The UAE founded the first pan-Arab Space Coordination Group in 2019, encouraging eleven Arab countries to jointly develop an Earth observation satellite named "813" after the year the Arab House of Knowledge reached its intellectual peak. The head of the UAE Space Agency has described space as the "fourth domain of power", a framing that captures the strategic logic behind this diplomatic push.[10]

Two institutional markers underscore the UAE's unique position. In 2021, Dubai hosted the International Astronautical Congress (IAC), the first time in history the IAC was held in the Arab world, bringing together the global space community and anchoring the UAE's position as a convening power in international space diplomacy. More telling still is the presence of a dedicated space attaché at the US Embassy in Abu Dhabi, a designation that reflects Washington's recognition of the UAE as a strategic space partner of singular importance. The French space agency CNES maintains an official representative in Abu Dhabi as well. Together, these markers signal that the UAE has crossed a threshold from participant to node – a country around which international space relationships are forged.

## Bahrain: Space Beyond the Vision Document

Bahrain presents the most analytically complex case. The Economic Vision 2030 is structured around three guiding principles: sustainability, competitiveness, and fairness, with its sectoral focus on financial services, manufacturing, logistics, and tourism.[11] Written at a time when Gulf space programmes were in their infancy, it makes no reference to space. Yet to read Bahrain's national space ambitions solely through this document would be to miss a significant layer of official strategic thinking.

The Kingdom of Bahrain's Space Policy and Strategic Plan 2019–2023, published by the Bahrain Space Agency (BSA), institutionally translates Economic Vision 2030's principles into the space domain.[12] The policy rests on five principles derived directly from Economic Vision 2030: competitiveness, fairness, sustainability, partnership, and interaction. It articulates five national objectives: benefiting from space to support development and national security; achieving physical presence in space through satellites, astronauts, and international missions; attaining regional and international leadership in space applications; creating a commercially sustainable space sector; and contributing to the stability and safety of the space environment.

Bahrain's formal submission to the UN Space2030 Agenda mid-term review further demonstrates the seriousness of this commitment.[13] Bahrain has signed three of the five main international space treaties, as well as the Artemis Accords, and has drafted a national space law. The BSA has established a national ground station, secured 18 master's and doctoral scholarships in space-related fields (40 percent women), hosted the Arab Space Cooperation Group meeting in 2022, and is co-developing a next-generation Earth observation payload with Oman Lens.

Taken together, these documents paint a picture of a small state that has constructed a coherent and increasingly operational space programme from a principled base. Bahrain's two-tier model – a governing vision that establishes principles and a sector-specific policy that translates them into measurable commitments – is arguably more operationally useful than a vision-level reference to space alone.

[2] In 2018, the UAE Space Agency and NASA signed a strategic Implementing Arrangement outlining cooperation in human spaceflight and exploration.

## Oman: Vision 2040 and the Long Horizon

Oman's Vision 2040 is the most recent of the four documents and, in some respects, the most architecturally sophisticated.[14] Developed through an extensive participatory process involving more than 41,000 citizens and approved by Sultan Haitham bin Tarik in 2020, it is structured around twelve national priorities organised under four pillars: "A Society of Creative Individuals", "A Competitive Economy", "An Environment with Sustainable Components", and "Responsible State Agencies".

The vision explicitly designates space as a "supporter and enabler of economic sectors" and entrusts the Ministry of Transport, Communications and Information Technology with establishing the national space programme, supporting the development and manufacturing of space systems and satellites, and transferring and adopting advanced technology.[15] This formulation is notably different from the UAE's: the UAE frames space as a destination sector – a domain in which the country will achieve global leadership – while Oman frames it primarily as an enabling technology – a tool for supporting the diversified economy the vision seeks to build.

This distinction reflects Oman's broader strategic positioning. With relative political stability and a geography characterised by proximity to the equator and a long coastline, Oman has identified a niche as a potential host for space infrastructure. This includes the Etlaq spaceport at Duqm, which, if completed as planned, would make Oman one of a small number of countries with domestic orbital launch capability (although still relying on foreign satellite launch vehicles).

Importantly, Oman's space ambitions extend beyond the civilian domain. The geostationary communications satellite currently under development – OMANSAT-1 – is intended for use by the Omani armed forces as well as civilian operators, confirming that the vision's framing of space as an enabling technology encompasses national security as much as economic development. This dual-use characteristic is consistent with the broader GCC pattern in which civilian space programmes and military space requirements are developed in tandem, often through the same platforms and institutional frameworks.

## Space Diplomacy as a Strategic Multiplier

None of the four national visions is a purely domestic economic programme. Each depends on international partnerships supplying technology, training, and international knowledge transfer. The Artemis Accords are the clearest marker: they place all four states within a US-anchored coalition governing lunar cooperation and data norms, though remaining on a normative floor rather than the full extent of Gulf space diplomacy.

Bilateral ties do the heavier lifting. The UAE's agreements with NASA, JAXA, and CNES delivered astronaut training and launch access that no domestic effort could match. Bahrain's Earth observation payload with Oman and Oman's Etlaq spaceport show smaller states using cooperation to offset limited industrial scale. Saudi Vision 2030 frames localisation as achieved "through cooperation with international partners", a precondition, not a supplement.

Multilateralism adds a layer: the 2022 Arab Space Cooperation Group and 2021 Dubai Astronautical Congress mark a shift from recipient to convener of space diplomacy, reinforced by a US attaché and CNES representative in Abu Dhabi. Civilian cooperation – Earth observation, satcom, and training – builds trust that can extend to security uses like early warning. Space diplomacy is thus not merely supportive of economic ambitions; it is the most likely path to formalising the visions' unstated security dimension.

## Sustaining the Momentum: The UAE's Space Agenda in a Regional Context

For the UAE in particular, international partnerships are not merely a feature of its space programme: they are a structural prerequisite for it. The goals articulated in We the UAE 2031 and the National Space Policy cannot be achieved in isolation; they depend on the sustained engagement with like-minded partner nations that provides the training, technology access, and diplomatic reinforcement on which UAE space ambition rests.[16]

For policymakers in Abu Dhabi and across the region, the lesson is clear: the Gulf's engagement with space is not episodic or symbolic. It is structural, growing, and grounded in some of the most carefully considered long-term planning documents that the region has produced. The question is no longer whether space belongs in the Gulf's

future. The question is how effectively the ambitions articulated in these visions will be translated into sovereign capability, industrial depth, economic growth, and lasting competitive advantage.

Several priorities follow from this analysis. Accelerating the indigenisation of satellite manufacturing will deepen the sovereign industrial base that the National Space Policy demands. Expanding domestic human capital – through training pipelines, university programmes, and research institutions – will ensure that the international partnerships identified in this Insight as structurally essential remain productive over the long term. Developing a competitive regulatory and commercial environment will translate technical achievement into economic leadership, attracting international partners and enabling a domestic space industry to flourish.

With a coherent and innovative vision, backed with bold leadership – political, technological, and economic – the UAE's pivotal role in the Artemis Accords, the Arab Space Cooperation Group, and regional forums will allow it to shape the norms and partnerships that define the Gulf's space future.

## Conclusion: Convergence and Differentiation

A comparative reading of the national vision documents of Saudi Arabia, the UAE, Bahrain, and Oman reveals both a shared regional logic and important national differences. The shared logic is the connection between space and economic diversification: in each case, whether explicitly or implicitly, space is understood as part of the answer to the question of what comes after oil. The capacity to design, build, operate, and derive value from space systems represents precisely the kind of high-skill, high-value economic activity that all four visions are seeking to cultivate.

The differences, however, are equally instructive. The UAE and Saudi Arabia's visions name space explicitly and ambitiously; Oman's vision integrates it as an enabling sector within a broader development architecture; and Bahrain's vision is silent on the subject, though the policy instruments that followed have been carefully aligned with the vision's principles. These variations reflect differences in institutional capacity, strategic timing, and national circumstance, but they do not reflect differences in direction.

What the vision documents do not fully reveal – and what recent analysis of the GCC space sector makes unmistakably clear – is the extent to which national security imperatives are accelerating and shaping these programmes alongside the economic ones. The proliferation of ballistic, cruise, and hypersonic missiles across the wider Middle East has made space-based systems for early warning, intelligence, navigation, and communications an operational necessity rather than a strategic aspiration. Gulf states seek not just the procurement of these capabilities, but also long-term industrial partnerships focused on capability development, localisation, and workforce training – exactly the language of technology transfer and indigenisation that the national visions themselves employ. In this sense, the visions and the security imperatives are not parallel tracks but converging ones.

It can also be clearly stated that the status of the space programmes of the UAE is the most advanced in the region. Not only does the UAE's national vision emphasise the importance of space, but the enactment of a national space law also positions the UAE in a leading role. The technological achievements of the Emirates are impressive by any measure – in the quality of its satellites, civil and defence alike; in the ambition of its research agenda (a lunar rover, a mission to Mars, a mission to an asteroid); and the vast planned programme for thousands of satellites under the "Deep Thought" initiative, in respect of which the UAE has submitted a formal filing to the ITU.

Taken together, the Emirates' accomplishments in the space domain demonstrate the strategic importance of space in realising a bold national vision, supported by impressive government backing and a high-calibre local workforce. It may be asserted that at present, a relatively quiet "space race" is underway – it is neither as pronounced nor as flamboyant as the space race between the USSR and the United States in the 1960s, yet a distinct competition undoubtedly exists between the UAE and Saudi Arabia. This subject – a Gulf space race – merits in-depth examination, and a future paper will hopefully address this fascinating field at length.

## Policy Recommendations

- Revise national space policies – not vision documents – to acknowledge dual-use security applications (early warning, ISR, secure satcom for command and control). Iran-region missile/UAV exchanges during Operations Rising Lion and Epic Fury made this operational reality no longer implicit.
- Strengthen interagency coordination by bridging civilian space agencies (Saudi Arabia, UAE, Bahrain, Oman) with defence and national security establishments to manage dual-use systems already in use.
- Broaden industrial policy beyond satellite manufacturing into downstream segments – ground stations, data analytics, geospatial services – with higher value capture relative to capital intensity.
- Move beyond Artemis Accords signature toward a concrete lunar/cislunar mission and payload participation, converting alignment to technical experience. "Rashid" lunar rover is an example of such a programme.
- Expand bilateral cooperation with the US and other countries on early warning and missile detection architectures, preserving sovereign control.
- Institutionalise a standing GCC space security dialogue toward shared early warning and Earth observation architectures, reflecting a shared missile/UAV threat.
- Use space diplomacy as an economic diversification instrument, positioning Gulf states as investors, trainers, and eventual launch-service hosts for third country programmes in Africa and South/Southeast Asia.
- Create sovereign co-investment vehicles (e.g., Neo Space Group) for dual-use ventures, letting security-relevant capability advance without vision documents naming it explicitly.

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