Portrait of Space Africa

Rachid Id Yassine
Senior Lecturer in Sociology, Gaston Berger University, Senegal
rachid.iy@ugb.edu.sn

In recent years, Africa's space sector has experienced a period of disruptive expansion, gradually establishing itself as a strategic player in the world stage. As of mid-2024, Africa has now 61 satellites in orbit out of 13,605[1], with an ambitious goal of 125 new satellites by 2025. South Africa (13 satellites) was the first country in the continent to enter the space adventure by launching the SUNSAT-1 satellite with NASA's support in 1999. Since then, 17 African countries have joined the club of countries with one or more satellites launched, including Egypt (13), Nigeria and Algeria (7), Kenya and Morocco (6), Angola, Ethiopia, and Rwanda (2), Ghana, Sudan, Tunisia, Uganda, Zimbabwe, Djibouti, Mauritius, and most recently Senegal (1)[2]. On August 16, 2024, Senegal launched its first satellite, GAINDESAT-1A. Meanwhile, new space programs are emerging, bringing to twenty-one the number of African nations involved in the space adventure (Al-Hagrassy, 2023).

The African space industry is therefore booming, with the emergence of 318 space companies and almost twenty thousand workers, more than half of whom are civil servants. In 2021, its value was estimated at $19.49 billion, with a projection expected to reach $22.64 billion by 2026 (Adetola, 2023). Admittedly, the African space economy (Space Foundation, 2024) accounts for less than 5% of the global space economy, which was estimated at $570 billion in 2023 (Faleti, 2024), but the continent is considerably increasing its investment, with over five billion dollars invested in nearly sixty satellite projects, while over the next three years, more than a hundred additional satellites are expected.

The sector also benefits from a strong political will, particularly represented by the African Union's space program, which led to the creation in January 2023 of the African Space Agency (AfSA) based in Egypt. This agency, which organizes the "African Space Forum", is tasked with coordinating and strengthening the space initiatives of African countries (Union Africaine, 2018), as Africa no longer intends to depend on foreign technologies. The continent's space history dates back to 1947, with the first French launches in Algeria

1 https://www.unoosa.org/oosa/osoindex/
2 https://spacehubs.africa/regions

How to cite this paper:
Id Yassine, R. (2024). Portrait of Space Africa. *Global Africa*, (7), pp. 30-31.
https://doi.org/10.57832/he1g-1g79

Published: September 20, 2024

(Wade, 2024). Five decades later, in 2003, Nigeria launched NigeriaSat-X, the first satellite designed and built by Africans, demonstrating the continent's growing expertise in space technologies. Since then, nine satellites have been entirely designed, manufactured and assembled on the continent, although no African country has yet been able to put a satellite into orbit.

Until now, satellite launches in Africa have been carried out by Russia (16), the United States (11), and China (7), but African countries could soon be launching their own satellites, as several spaceport projects dedicated to future African missions are underway (Daire. & Michalon, 2024). While Turkey is in talks with Somalia (Agbetiloye, 2024), Djibouti signed a memorandum of understanding last year with two Chinese companies to jointly develop and operate a spaceport in the country (Pons, 2024). Between 2000 and 2023, Africa signed over 166 bilateral space agreements involving more than 100 institutions from 32 countries (Adetola, 2023). The development of suitable infrastructure is therefore a priority for Africa, which is home to strategic facilities such as the Luigi Broglio Space Center in Kenya, used for rocket launches. The continent is therefore developing its space infrastructure, including 355 ground stations, 60 telescopes, 22 planetariums, and more than 11 renowned observatories (Adetola, 2023).

International partnerships thus play a key role in the development of the African space sector. Senegal, which plans to launch a lunar probe by 2030, was the only African country invited to the High-Level Conference on Space Technologies in Central Eurasia (STC 2024). The Senegalese Space Agency and the Turkish Space Agency signed a memorandum of understanding on the use of satellites and the construction of space infrastructure. These collaborations strengthen African capabilities, enabling the continent's countries to gradually catch up with the major space powers.

Bibliography

Adetola, A. (2023). African Space Industry Annual Report, 2023 Edition. *Space in Africa*. https://spaceinafrica.com/2023/08/28/african-space-industry-annual-report-2023-edition/

Agbetiloye, A. (2024). La Turquie envisage de construire un site d'essai de missiles et de fusées spatiales dans la Corne de l'Afrique. *Qiraat Africa.* https://qiraatafrican.com/fr/12790/la-turquie-envisage-de-construire-un-site-dessai-de-missiles-et-de-fusees-spatiales-dans-la-corne-de-lafrique/

Al-Hagrassy, N. (2023). Technologies spatiales : L'Afrique affiche ses ambitions. *Al-Ahram*. https://french.ahram.org.eg/News/39397.aspx

Daire, C. & Michalon N. (2024). Great powers jostle over east African space ports. *Africa Intelligence*. https://www.africaintelligence.com/eastern-africa-and-the-horn/2024/05/29/great-powers-jostle-over-east-african-space-ports,110241957-eve

Faleti, J. (2024). Space Foundation Reports 7.4% Global Space Economy Growth. *Spacewatch Global*. https://spacewatch.global/2024/07/space-foundation-reports-7-4-global-space-economy-growth/

Pons, J. (2024). China's new ambition: to set up a space base in the Horn of Africa. *Atalayar*. https://www.atalayar.com/en/articulo/new-technologies-innovation/chinas-new-ambition-to-set-up-space-base-in-the-horn-of-africa/20240213105939196819.html

Space Foundation (2024). Civil space spending in Africa (USD), 2022-2024. *The Space Report*. https://www.thespacereport.org/resources/civil-space-spending-in-africa-usd-2022-2024/

Union Africaine (2018). Statut de l'Agence spatiale africaine. https://au.int/sites/default/files/treaties/36198-treaty-statute_african_space_agency_f.pdf

Wade, M. (2024). Hammaguira. *Encyclopedia Astronautica*. https://web.archive.org/web/20140209173427/http://www.astronautix.com/sites/hamguira.html