

IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Emerging Global Space Ventures (9-D6.2)

Author: Mr. Guido Schwartz
Foundation for Space Development South Africa, Germany

'THE AFRICAN-EUROPEAN SPACE ALLIANCE - A COMMERCIAL FUTURE FOR SPACE
MISSIONS'

Abstract

Europe with its long tradition in space affairs faces the harsh reality that its geographical location is not comforting its space ambitions. Today various countries in Europe discussing the setting up of Spaceports to launch spacecrafts directly - independent from 3rd parties. Portugal, Norway, Scotland or Germany dream of their space industries getting empowered by own national launchpads. Considering efficiency, costs and in particular the negative environmental impact all existing options are doomed. Effective space missions are done via polar and equator launches. Indeed with the growth of small satellites and a new generation of small and even micro-launcher, spaceports become more geographical flexible. Though launch pads in Europe are still rather badly located geographically. Beyond Europe it provides a chance for more cost effective launches while having less environmental harm.

My hypothesis is that greener and more cost efficient results could be accomplished for European space missions in direct cooperation with Africa. The continents space ambitions are growing based mainly on commercial business models in the field of small and micro satellites as well as small launcher. Europe still depends on institutional money to realize its space missions. The ambitions of Africa are ubiquitous displayed in the recent inauguration of the African Space Agency in Egypt and the mushrooming of national space agencies across the continent. Key is that Africa offers an Equatorial and a South Pole launch opportunity. Regional relevant launchpads combined with existing ground stations that already operated during the last century could be a game changer. The inclusion of the African continent and its emerging space nations into the European Space regime could empower both continents and the commercialization of global space launches.

Europe's existing price structures in space missions are not competitive today. NewSpace is often foreseen but only Africa can already demonstrate that commercial business models work and that capacity development in the space domain can be done in cooperation better than alone. Potential launch pads in Sweden, Kenia and South Africa would be able to cover for both continents all relevant space launches with micro, small, medium, full-size and xxl-launcher, especially taking the optimal geographical positions of such launchpads into consideration. The environmental impact of space launches could be further reduced and the emission footprint minimized. European expertise and space heritage combined with African business models and optimal launchpads would be the entry into the full global commercialization of space missions.