

Overview of the South African Aerospace Industry Landscape

The South African aerospace industry is active and vibrant and can demonstrate a long and proud history of aerospace innovation, research, development and manufacturing. The industry, which was already manufacturing full aircraft in the late 1920's has turned that early step and many subsequent innovations into long standing partnerships with many of the world's leading aerospace original equipment manufacturers.

Many South African aerospace companies are single source suppliers of components and assemblies to the likes of Saab, Boeing and Airbus to name a few. In addition South Africa also has a long track record of producing full aircraft and complex aircraft systems from for instance the Rooivalk helicopter all the way to general aviation aircraft such as the Sling, to building aircraft under licence, such as the Dassault Mirage etc. South Africa also has a very mature research and development agenda through which the country has become a globally recognised leader in key technological offerings such as titanium beneficiation, air traffic management, avionics and electronic warfare systems and UAV's, to name a few.

The sector in South Africa consists of a range of stakeholders in general aviation, commercial, aviation, military aviation, air traffic management, aircraft part and system manufacturing, integration, propulsion avionics, sensors, ICT systems, and advanced manufacturing, including university and science council based fundamental research into new materials (titanium and natural composites).

Given the increased overlap between products intended for defence and civilian use, the aerospace industry includes companies that produce defence equipment or products by making use of civilian technologies, or which manufacture dual-use products that are saleable in both defence and non-defence markets. The technological intensity of the aerospace and defence sector acts as a driver for new technologies and technical skills to be developed in the country, that are diffused to other sectors thereby intensifying industrialisation and contributing to the evolution towards a knowledge economy.

The industry consists of 120 well established local companies and state owned entities employing over 5000 specialist, scientists, engineers, artisan and technicians, with an approximate turnover of R5B/annum.

POSSIBLE COLLABORATION

Four main types of collaboration could be offered in the aerospace sector:

- a. Business matching
- b. Business Supporting Organizations Collaborations
- c. Tertiary education and research exchange
- d. Local and National Government interaction

b. BUSINESS SUPPORTING ORGANIZATIONS COLLABORATIONS: list of South African Industry grouping

In South Africa there are three main industry grouping association on the Aerospace field:

- AMD – Aerospace, Maritime and Defence Industries Association of South Africa
Its primary objectives are the representation of the industry in matters of mutual interest, and the promotion of a profitable, sustainable and responsible industry. The association is acknowledged as the only trade association of South Africa's defence industry (SADI) and is mandated by its members to promote and champion the collective interests of the industry. It comprises a cluster of leading companies in the South African private and public sector that supply defence materiel, products and services.
- CAASA – Commercial Aviation Association of South Africa
It is a non-profit organisation with the aim to promote and protect the commercial interest of the general aviation industry in South African Aviation. Member companies include airport operators, non-scheduled operators, business aircraft operators, flying training organisations, aircraft maintenance companies and companies offering a whole range of supporting and retail services.
- CAMASA – Commercial Aviation Manufacturing Association of South Africa
It is a non-profit company. It is the establishment of a Growth-Bilateral between Government and Industry to boost South African Commercial Aviation Manufacturing Exports through: public-private partnership, integrated growth plan, expanding advances manufacturing, future-oriented competitiveness (IoT, ind4.0)

→ CAMASA is part of the LOC of the event of December and it has identified specific area of collaboration that it is seeking to establish:

- Industry benchmarking of SME companies, gap analysis, supplier development strategies/methodologies/interventions/development process
- Industry organisation/development planning & execution
- Regional and National development strategy deployment.

c. TERTIARY EDUCATION AND RESEARCH EXCHANGE

A number of research centres and groups are part of the South African research and university landscape, where world-class research in the field of aerospace and space technologies is carried out. These are, e.g.:

- Council for Scientific and Industrial Research - CSIR
- National Aerospace Centre - NAC
- Stellenbosch University
- University of Cape Town
- University of the Western Cape
- Cape Peninsula University of Technology
- Wits University
- University of Johannesburg
- University of Pretoria
- Tshwane University of Technology
- Vaal University of Technology
- North West University
- University of Limpopo
- Nelson Mandela metropolitan University
- Central University of Technology

d. LOCAL AND NATIONAL GOVERNMENT INTERACTION

The Department (Ministry) of Trade and Industry (DTI) has put in place and manages a number of plans, actions and programmes aimed at facilitating and supporting an inclusive growth and the structural transformation of the South African economy.

- *National Industrial Policy (IPAP)*: The Industrial Policy Action Plan (IPAP) is firmly entrenched in Government's overall policy and plans to address the key challenges of economic and industrial growth and race based poverty, inequality and unemployment.
- *Black Industrialist Program*: black people directly involved in the origination, creation, significant ownership, management and operation of industrial enterprises that derive value from the manufacturing of goods and services at a large scale
- *Invest SA*: it is a division of the DTI providing a One-Stop-Shop service to investors. It provides investments promotion, facilitation and aftercare, which is geared at fast-tracking projects and reducing government red-tape. It facilitates the increase in the quality and quantity of domestic and foreign direct investments by providing and investment recruitment, problem-solving and information service to retain and expand investment in South Africa and Africa. It actively markets, promotes and facilitates investments in key high-yielding growth sectors of the South African economy.
- *Aerospace Industry Support Initiative (AISI)*: the initiative is aims at positioning the South African aerospace and defence related industry as global leader, in niche areas, whilst ensuring effective interdepartmental participation and collaboration. The initiative comprises four programmes: Supplier development; Sector strategic support initiatives; Industry development and technology support; Coordination, Promotion and Awareness. The AISI achieves impact in industry through focused programme-level interventions benefiting industry. The programmes are designed to assist industry in overcoming challenges faced by industry, and in doing so, ensuring that industry becomes more competitive. The programmes aim to improve the industrialisation processes and introduce technologies into industry, which will ultimately add to its overall competitiveness.

The participants will have the opportunity to learn more on the policies and interact with some of the entities responsible of supporting the South African industry and the creation of international joint venture and collaborations.

Financing opportunities are offered locally by agencies such as Industrial Development Corporation (IDC) and National Empowerment Fund (NEF).