



Positioning the South African Aerospace Industry as a Priority Sector



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Outline of Presentation

- South Africa at a glance
- Process
- Definition
- Conceptualisation of the S.A. Aerospace Industry
- Capabilities
- Evolution of the S.A.Aerospace Industry
- An Aerospace Industry Support Initiative (AISI)
- Centurion Aerospace Village
- National Aerospace Centres of Excellence
- Interventions

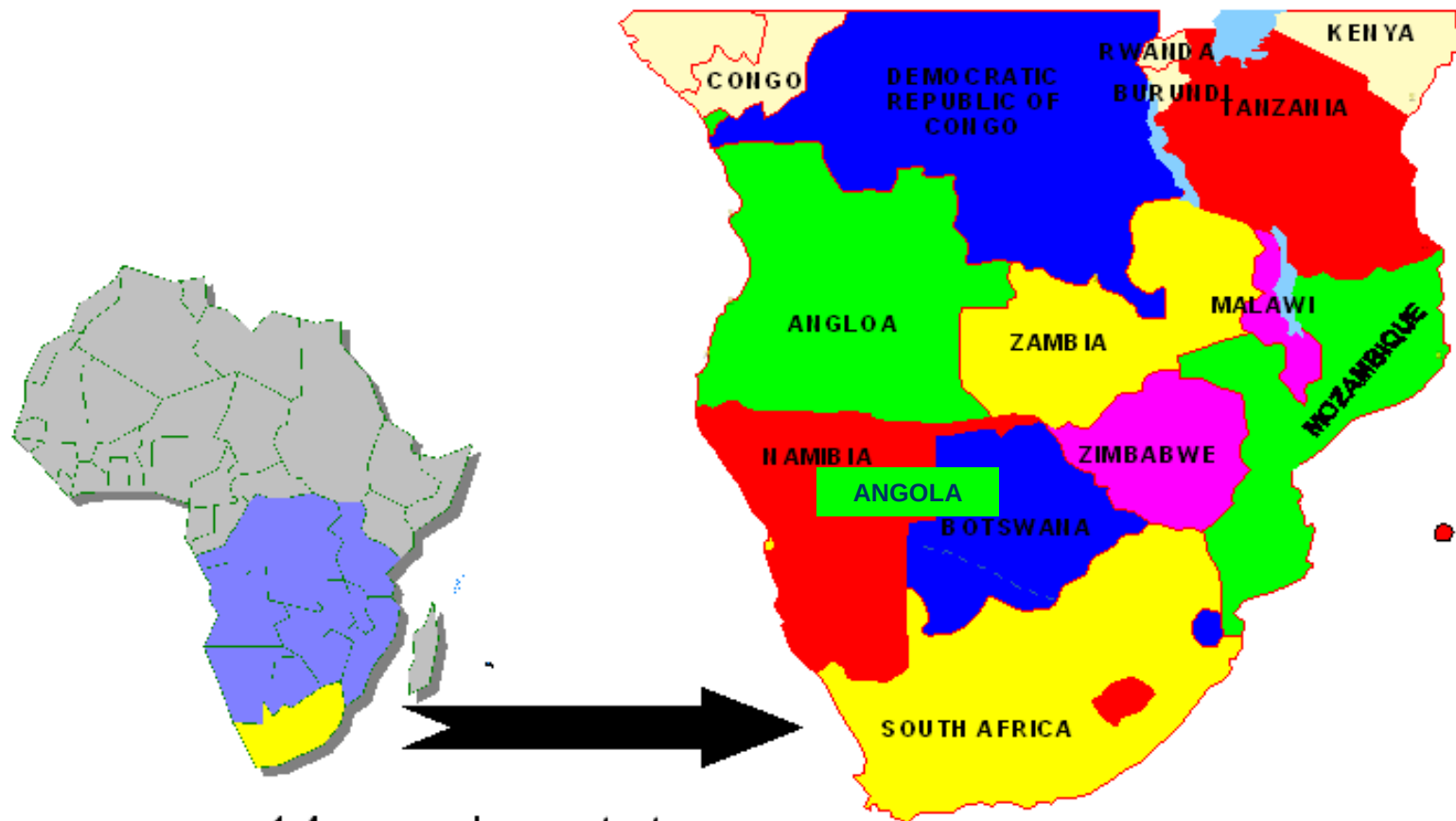


South Africa at a glance

- Area 1,219, 090 km²
- Population 44,8m
- Currency 1 Rand = 100 cents
- Time GMT + 2 hrs
- Head of State: President Thabo M Mbeki
- 11 Official languages with English the business language
- Total GDP R1 523 bn (2005) (US\$ 215 bn)
- GDP per capita R31 850 (2005) (US\$ 4 568)
- Real GDP Growth 4.9% (2005)
- Inflation (CPIX) 4.1% (annual 2005 average)
- Exports Gold, minerals, diamonds, metals and metal products, food, automotive and other transport components
- Main trading partners Germany, USA, China, Japan, France



SADC and South Africa



- 14 member states
- 170 million people



Macro-Economic Policy

Macroeconomic interventions to accelerate growth and ensure social inclusion

2004



- ◆ Higher public sector investment
- ◆ Reduce the cost of doing business
- ◆ Expand public works & micro-credit programmes
- ◆ Improve state capacity to provide economic services
- ◆ Strengthen social cohesion

Growth in 2005 was 4,9%

ASGI-SA



- ◆ Broad framework of further steps needed to raise the range of growth to higher levels
- ◆ Proceeds from premise that positive factors in the economy afford society the possibility to pursue for better economic performance.



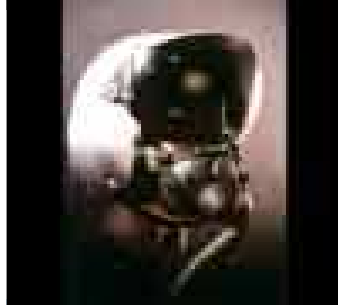
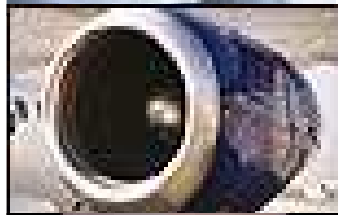
Our Process

- “A Strategy for an Aerospace Industry in South Africa”, 2000 Paul Hatty et al (**the dti**, DPE, DOD)
- “ASSEGAI” “A Strategy for a Sustainable, Economical and Growing Aerospace Industry, 2003. Produced during the development of the Advanced Manufacturing Technology Strategy of the DST
- Consultation process between “big 6” domestic companies and government departments since Nov 2003.
- Identified short term priorities to respond to industry specific needs
- Minister Mpahlwa (Trade and Industry) opening of African Aerospace and Defence 2004
- 15 December 2004, partnership with AMSL re A400M
- Minister Mangena (Science and Technology) launch of the AMTS Aerospace Network on 12 April 2005
- Implementation Strategy for an Aerospace Industry Support Initiative (AISI)
- Launch of Aerospace Initiatives on 27 August 2007

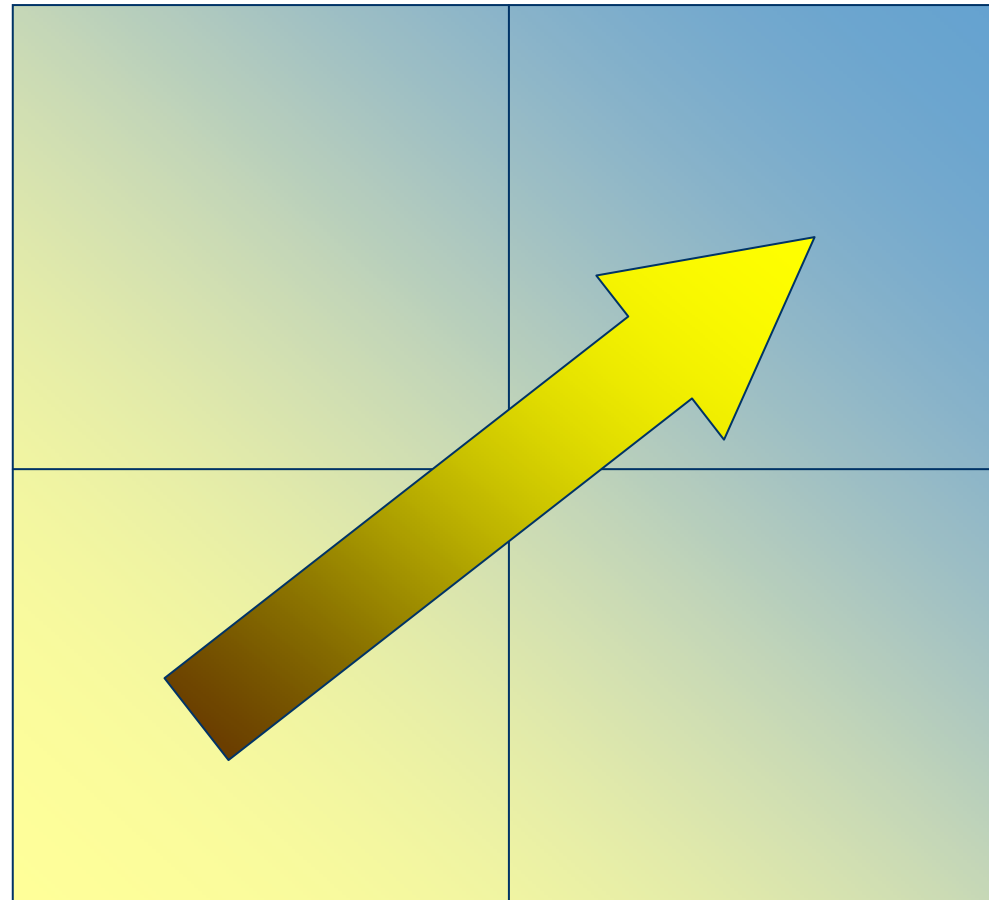


Our definition of AEROSPACE

Civilian



Defence



Aeronautics

Space



CONCEPTUALISATION OF THE AEROSPACE INDUSTRY

- In the 90`s, the South African Aerospace/Defence industry not only lost its primary customer, the South African Defence Force, and all kinds of state protection, but was forced to commercialise and integrate into a global industry that itself was faced with massive oversupply and restructuring.
- In the subsequent years the global industry had undergone unprecedented restructuring, resulting in the number of major aero/defence firms declining dramatically as companies merge, e.g. level of consolidation in the US and European markets.
- These mergers and acquisitions began to cross national boundaries as the emerging defence giants sought new partners and subsidiaries. At the same time the importance of exports grew as a source of compensatory revenue



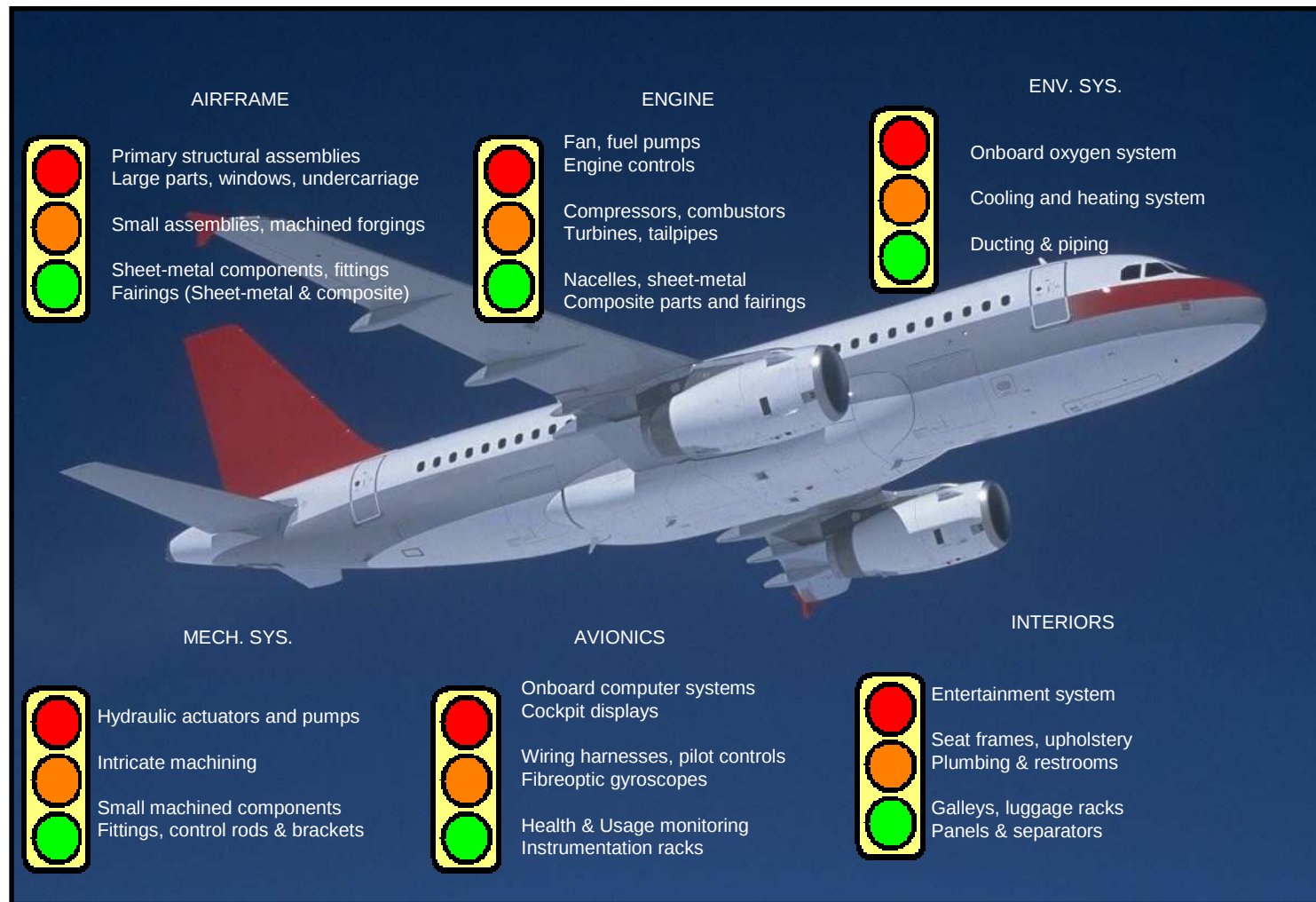
WHY AEROSPACE/ DEFENCE INDUSTRY SUPPORT AND THE ROLE OF THE DTI?

- Work done by **the dti** as a result of the integrated manufacturing strategy (Industrial Policy), culminated in identify mechanisms of enhancing the supply chain linking the global Original Equipment Manufacturers (OEM`s) to the South African Industrialists.
- Establishment of first tier South African companies, thus enabling creation of a cluster of well supported small and emerging enterprises and also the introduction of small, medium and micro enterprises in the main domain of advanced manufacturing
- The fundamental challenges faced by the industry then were as follows:
 - o The ability of the industry to maintain the macroeconomic conditions.
 - o The wider socio-economic environment and policies that would improve competitiveness and maximize ability to compete in the global arena.
 - o SA's industry response to the global industry has become smaller, more concentrated in the hands of fewer, big companies.

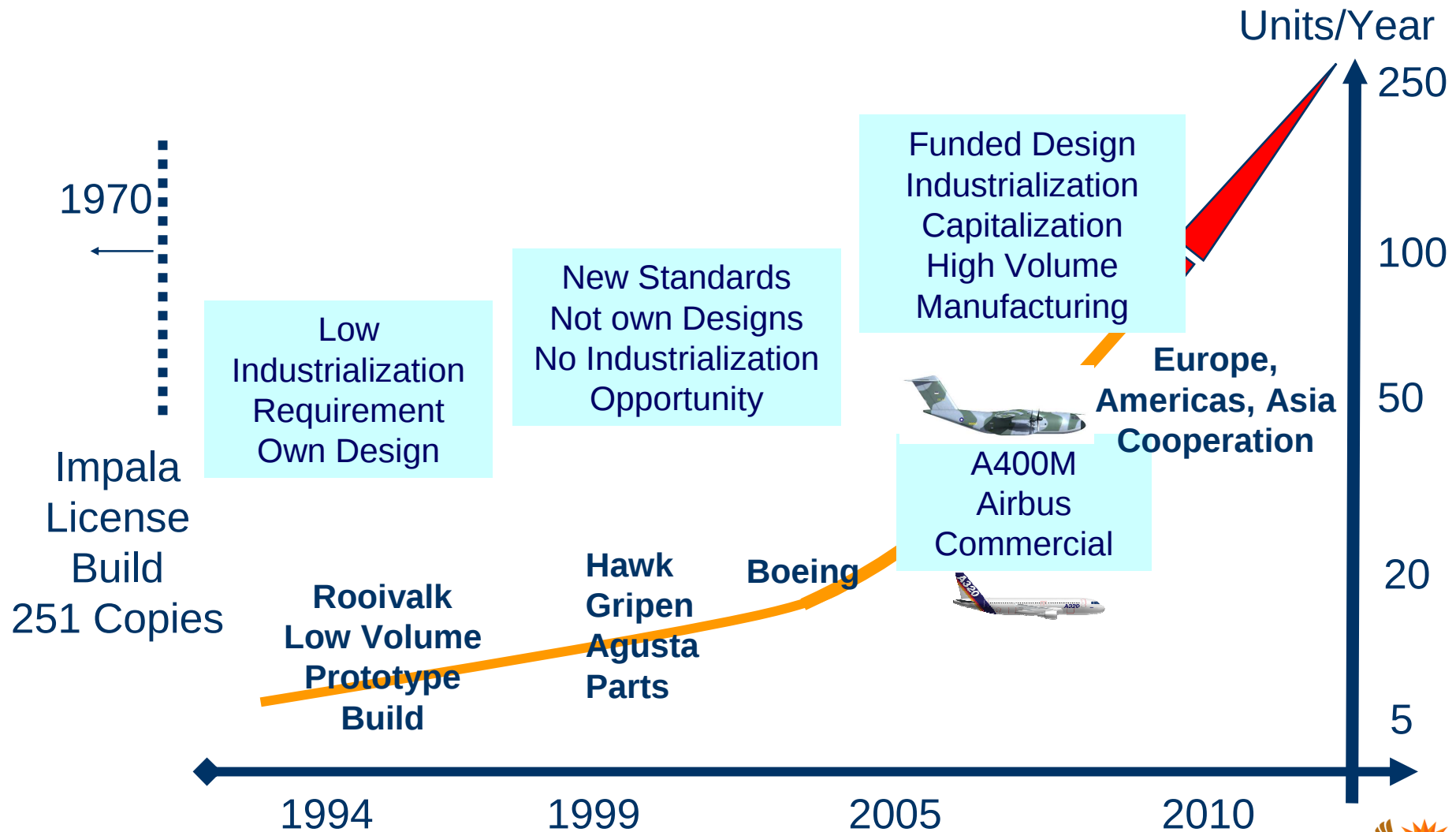


SOUTH AFRICAN CAPABILITY MATRIX

Existing Capabilities



The Evolution of SA Aerospace Manufacturing



The jig saw puzzle – the ASSEGAI process

The *modus-operandi* followed for the generation of the ASSEGAI strategy document was to approach key local, multi national and international companies (who had an existing or potential role to play within the South African aerospace industry), with a request to provide answers to the following questions:

- What is the “state of the nation” of the local aerospace industry?
- What are the present and future international trends?
- Where is South Africa’s aerospace industry heading?
- Where South Africa’s aerospace industry should be heading?



Feedback from this process was then used as a basis for defining the strategic outcomes

1. Creation of partnership in which government's return on investment for the country is realised ,whilst at the same time industry was given a platform from which they could collectively gain more value added work and have more control over their own industry.e.g. A400M programme
2. A technological and business agenda for innovation was created to afford the partnership and the opportunity to collectively generate long term strategies around, Human Resource Development (HRD), technology infrastructure, supply chain development;
 - a) Aerospace Industry Support Initiative (AISI)
 - b) Advanced Manufacturing Technology Strategy (AMTS)
 - c) Centurion Aerospace Village (CAV)
 - d) etc



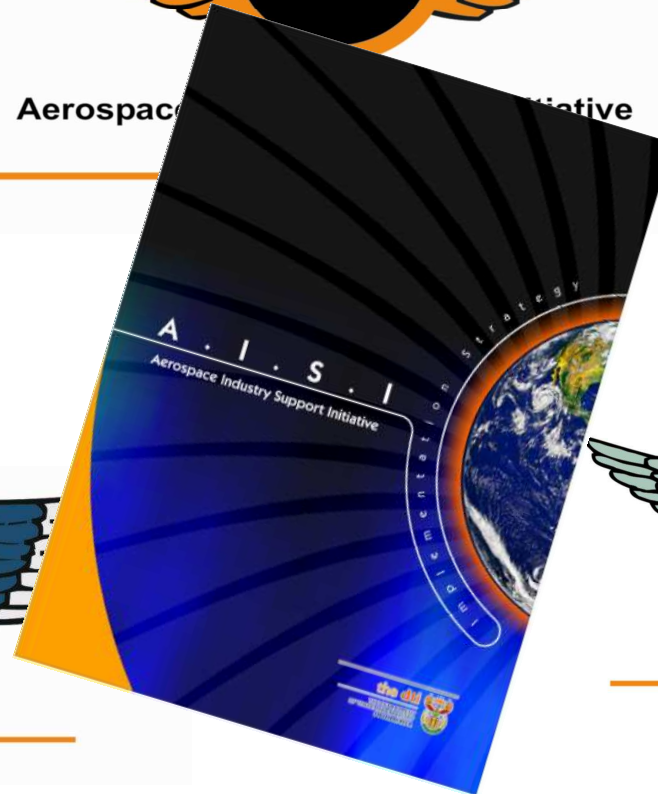
the dti Aerospace Initiatives



Aerospace Industry Support Initiative



an initiative of the dti



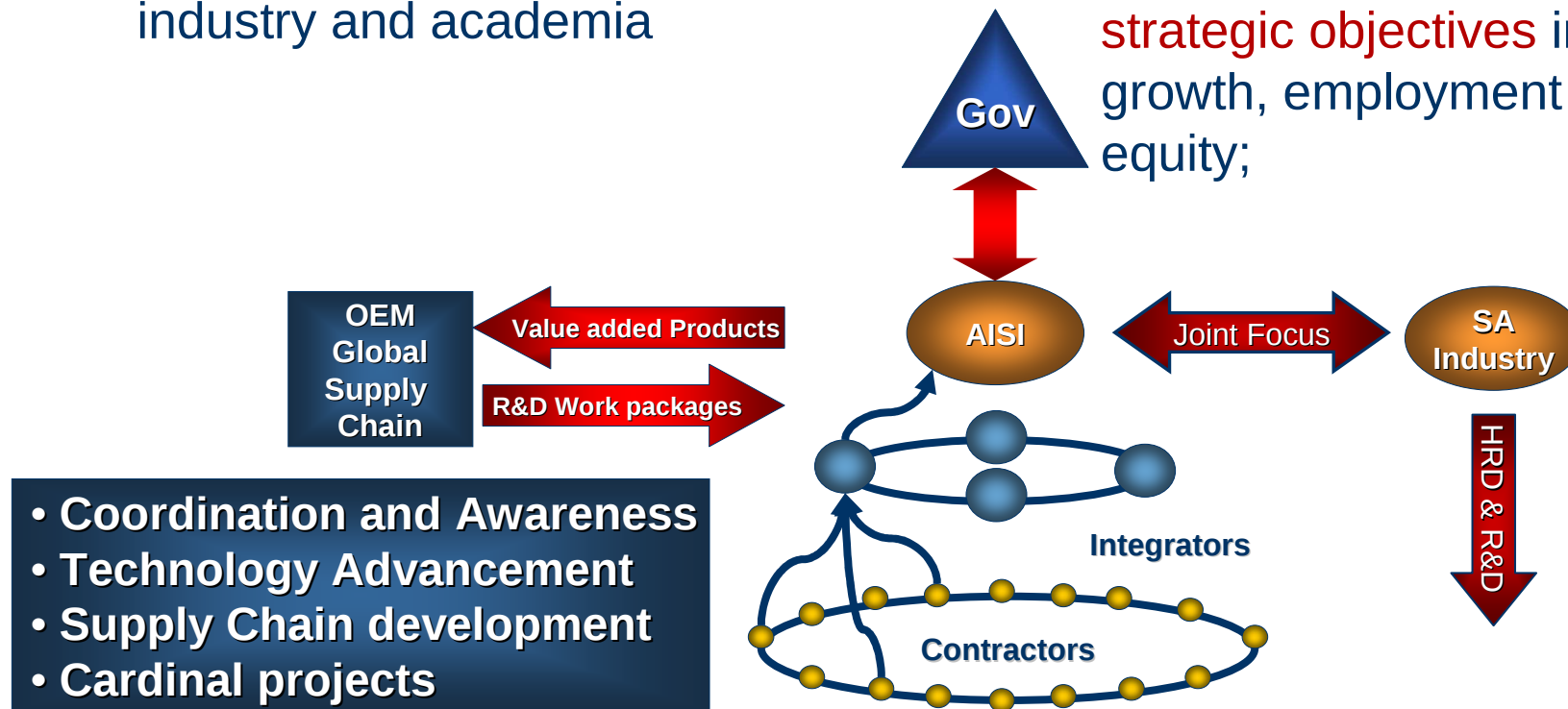
AEROSPACE VILLAGE

an initiative of the dti



The AISI Role

- To enhance the **global competitiveness** of the South African aerospace industry;
- To provide an **institutional platform** to **facilitate partnerships** and **innovation** between government, industry and academia
- To identify, develop, support and promote the interests and **capabilities** of the South African Aerospace Industry
- To accelerate the achievement of **government strategic objectives** including growth, employment and equity;



Aerospace Industry Support Initiative

VISION

- Through the collective leadership of government and industry, upgrade, propel and position the South African Aerospace Industry to be firmly integrated as part of global supply chains

MISSION

- To enhance the global competitiveness of the South African Aerospace Industry;
- To provide an institutional platform to facilitate partnerships and innovation between government, industry and academia;
- To identify, develop, support and promote the interests and capabilities of the South African Aerospace Industry
- To accelerate the achievement of government strategic objectives including growth, employment and equity;



AISI - Programmes

A single Government co-ordinated initiative to be incubated within the Centre for Scientific & Industrial Research (CSIR) over an initial 3 year period which will endeavour to undertake the implementation of programmes as follows:

- Co-ordination, Promotion and Awareness
- Technology Advancement
- Supply Chain Development
- Human Resource Development
- Optimization and Utilization of National Facilities
- Resourcing and Overseeing the Implementation of Cardinal Projects



Partnership between Government & Industry

Mr Vimal Mammen
Project Manager

CENTURION AEROSPACE VILLAGE

**Department of Trade and Industry
National Aerospace Industry Support Initiative (AISI)**

**Technology Advancement
Initiatives**

**Aerospace Supply Chain
Development Programme**

**Human Capital
Development Initiative**

**Aerospace Supply
Chain Improvement
Programme (ASCIP)**

- E-Business Portal
- Standardise & enhance Procurement process
- Reduce operational costs
- Improve efficiency & lead-time

Centurion Aerospace Village

- Aero-Mechanical Manufacturing Cluster
- Integrate into Global Aerospace Supply Chain
- SMME Mentorship & Development
- High-tech Design & Manufacturing activities
- 150 direct jobs by Dec 2008
- Growth - 450 jobs by February 2009

**Supplier Development
Programme**

- Quality Certification
- Accreditation
- Improve production processes
- Roll out of BBBEE code



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Project Overview

- Short term objective is to **fast track the development of sub-tier supply** chain in South Africa
- Medium term objective is for CAV to progressively become a commercially viable and **self sustainable entity**
- Long term objective is to develop a World Class Aero-Mechanical Manufacturing Cluster as a **supplier of choice for the major OEM's.**

- The Centurion Aerospace Village (CAV) is registered as a **Section 21 (Non-Profit company)** which will be the vehicle to administer and manage funds allocated by Department of Trade & Industry (**the dti**)
- Key Stakeholders of the CAV are:
 1. Department of Trade & Industry
 2. European Union
 3. Primary Suppliers in the Aero-Mechanical Domain
 4. BAE Systems
- **Objectives** of CAV are to:
 - ✓ Plan, develop and operate an Aviation Supplier Park
 - ✓ SMME Identification & Relocation to CAV
 - ✓ SMME Mentorship
 - ✓ SMME Skills & Training

Integration with South Air Force Strategy for co-use of land on Air Force Bases in South Africa

Relocate, mentor and develop SMME's in CAV, assist companies to move up the sub-tier supply chain

Proximity to lead industry driver imperative for logistic integration, operational efficiency and reduced cost

Phase 1 – Launch SMME's:

- 13.6Ha of State land East of Air Force Base (AFB) Waterkloof (Pretoria)
- Manufacturing & design facilities, warehousing, CAV Business Centre for management team, canteen, conference facilities, employee parking, etc

Phase 2 and Future Phases – Further Growth and Airside Access:

- Expansion on State land East of AFB Waterkloof (Pretoria) being negotiated
- Hanger facilities to house aircrafts for Maintenance, Repair & Overhaul



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Macro Strategy

**AFB
WATERKLOOF**

**SAAF
DEVELOPMENT**

CENTURION



Phase 1

AEROSPACE VILLAGE

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AEROSUD

CENTURION



Phase 2

AEROSPACE VILLAGE

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CENTURION



Phase 3

AEROSPACE VILLAGE

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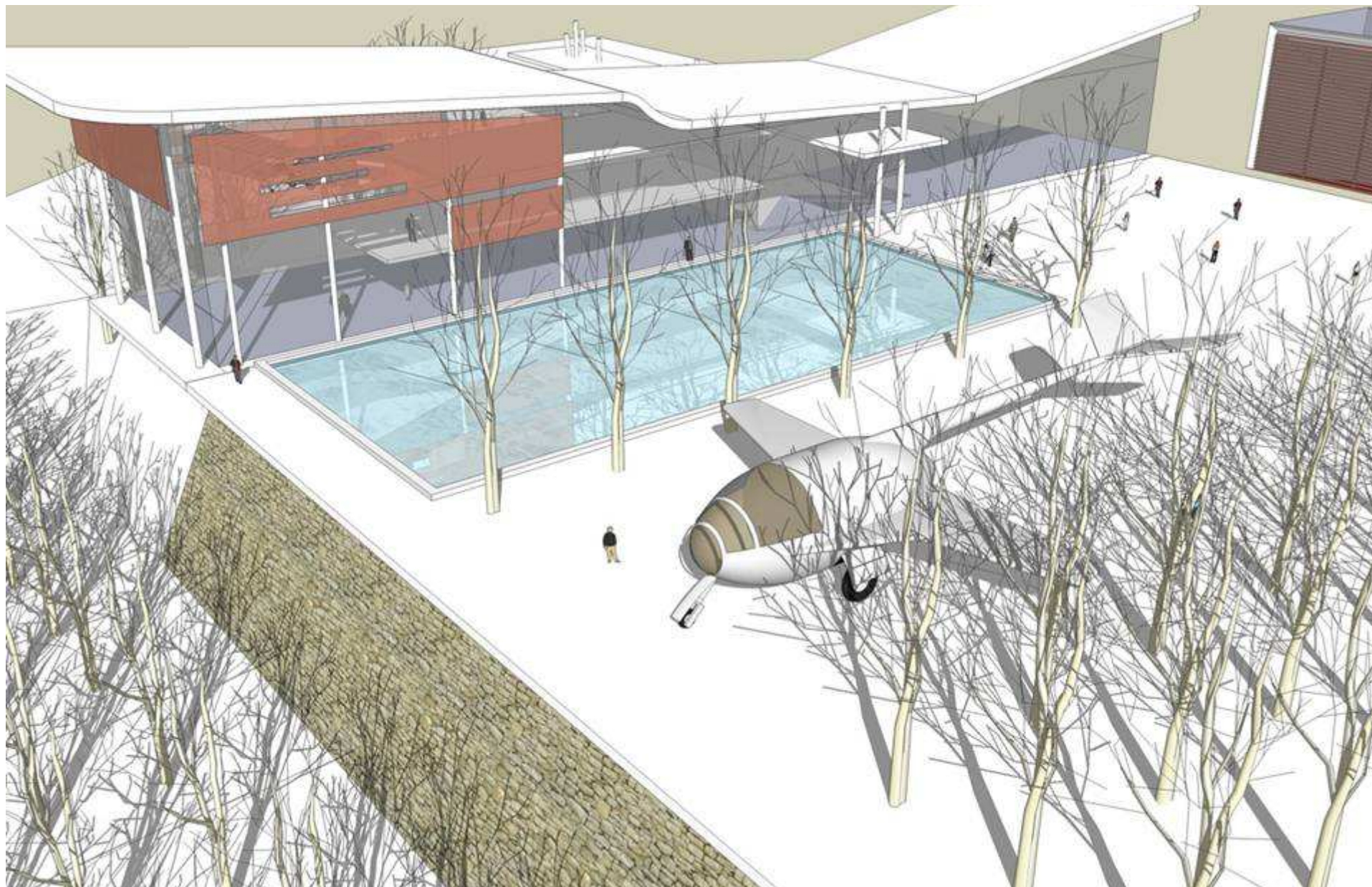


AEROSPACE VILLAGE

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Typical square view - artist impression

VNARCH + COMWI



Main building - artist impression

AEROSPACE VILLAGE

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AEROSPACE VILLAGE

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Typical avenue view - artist impression

VNARCH + COMWI



AEROSPACE VILLAGE

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Typical avenue view - artist impression

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NATIONAL AEROSPACE CENTRES OF EXCELLENCE



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Mr Lucas Ndema

The dti



the dti Policy on Centres of Excellence

- “Industrial development requires the synchronisation and integration of not only different policy frameworks, but also a range of specialist services. Industrial Centres of Excellence are to **provide leadership, synchronisation and integration of these diverse frameworks and specialist services**; in order to build new industrial capabilities, strengthen existing ones, and also lay a solid platform for enhanced competitiveness of relevant sectors “
- The Industrial Centres of Excellence are envisaged as physical or virtual centres providing or coordinating the provision of a wide range of specialist services necessary to develop the specific industrial sectors. **These centres shall enable collaboration within industry, between industry and government, between industries, and also between the relevant industries and other relevant institutions.**

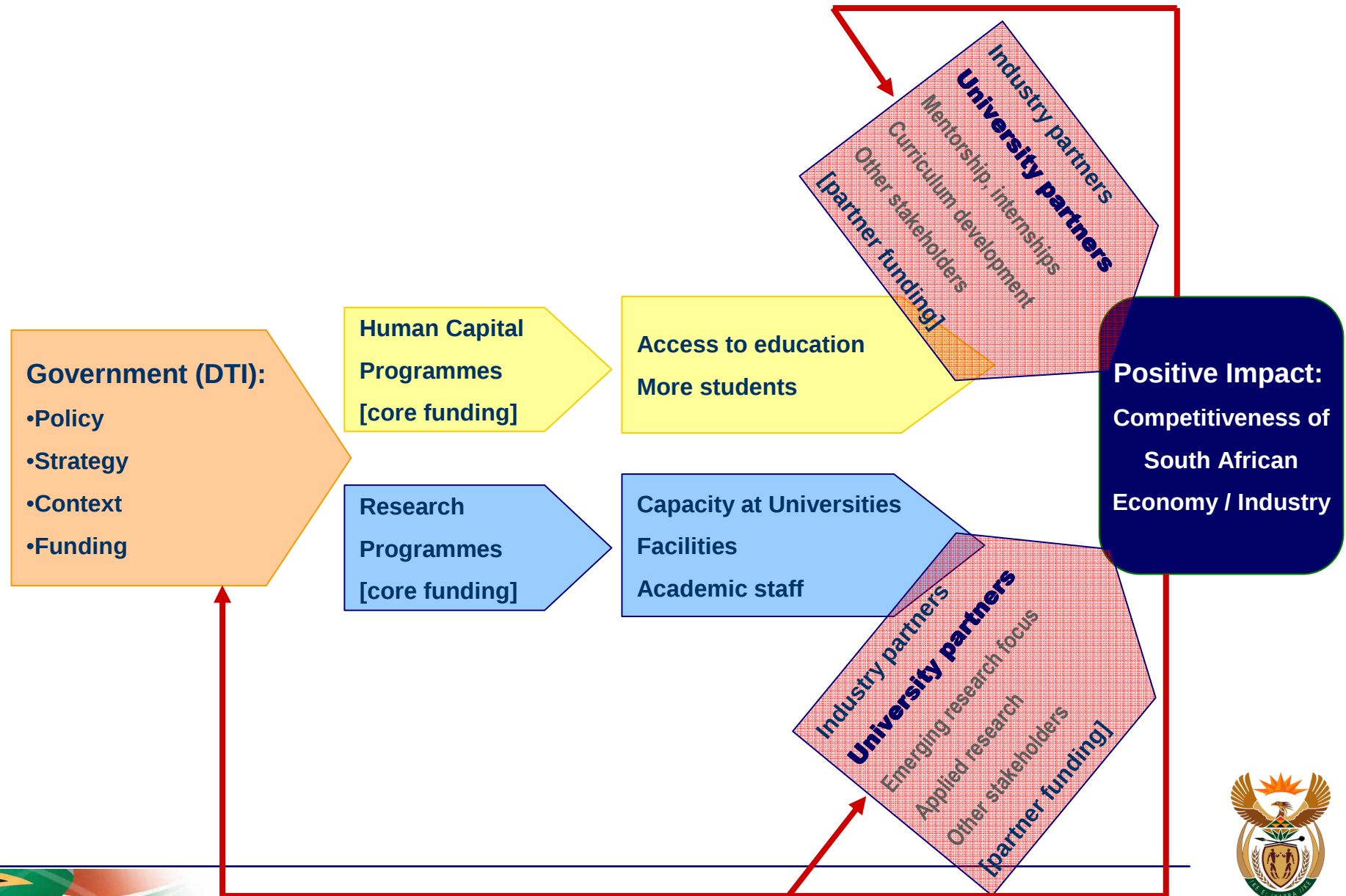


NACoE Mission

- The NACoE conducts leading edge commercially significant technology research and development for the Aerospace industry in SA that would not have otherwise happened, and enhances the competitiveness and sustainability of the industry
- Key outputs of the NACoE are new or more competitive technologies/products, new knowledge, highly skilled human resources and technology transfer
- Outputs are achieved in accordance to a long-term development strategy as a collaborative, multi-disciplinary effort between government, industry, academia and research institutions
- Self-sustainability in the long term is achieved through consistently adding value to all stakeholders during the formation years and beyond



The NACoE Model – simplified illustration



Proprietary Information



Research Themes

- **Aerospace manufacturing processes and materials**
- **Aeronautical dynamics-modelling, simulation and control**
- **Firm level competitiveness and supply chain optimisation**



INTERVENTIONS – SUPPLY CHAIN

CENTURION AEROSPACE VILLAGE (CAV)

OBJECTIVE

Park Development of a World Class Aero-Mechanical Manufacturing Cluster in the Gauteng Region of South Africa

ACTIVITIES

- SMME Development – fast - track sub-tier SMME/BBBEE
- Development of Brand new Tenant facilities
- Shared services
- Consolidation
- Common infrastructure
- Logistics Integration
- Co-location of suppliers in a ring fenced area
- Mentoring & development of SMME suppliers
- Skills & Training

TIMELINES

- 6 buildings to be occupied by Dec 2008
- 3 buildings to be occupied by June 2009
- 2 hangers & office blocks to be occupied by Jan 2010



INTERVENTIONS CONTINUED.....1

AEROSPACE SUPPLY CHAIN IMPROVEMENT PROGRAMME (ASCIP)

OBJECTIVE

Development of an e-business for domestic integrators, SMME's and international OEM's

ACTIVITIES

- A working web-based portal
- Web-based support
- Integration of SMME companies into the global supply chain
- Creation of an industry steering committee
- Long-term funding support model

TIMELINES

- Phase 1 – delivered in June 2007
- Phase 2 – Rolled out in August 2007 & currently ongoing
- Phase 3 – Integration of all suppliers in the value chain in the ASCIP programme



INTERVENTIONS CONTNUED - SKILLS

NATIONAL AEROSPACE CENTRE OF EXCELLENCE (NACoE)

OBJECTIVE

Aerospace Skills Development Initiative

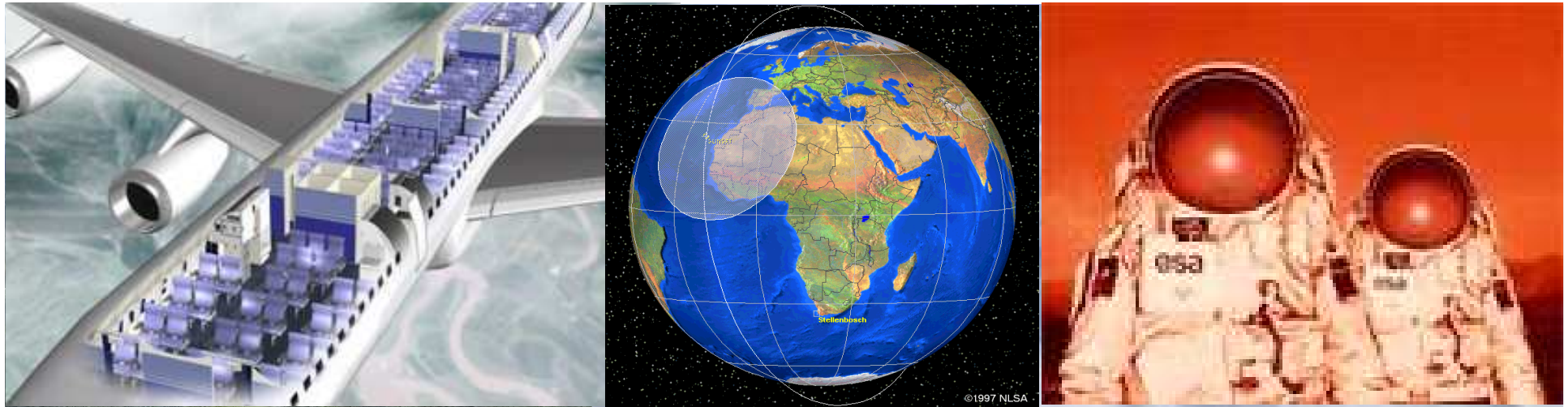
ACTIVITIES

- Promotion of Aerospace related careers at grade 11, 12 level
- Support to learners to access education (various NQF level, including University, artisans, etc)
- Productivity improvement in aerospace industry
- Retention of skills (reverse skills losses to international opportunities or other sectors)

TIMELINES

5 year programme





Thank you for your attention!

