# AIR TRAFFIC & NAVIGATION SERVICES
# INTEGRATED REPORT 2016

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# PERFORMANCE HIGHLIGHTS FOR 2015/16

| Strategic objectives | Indicator | | 2014/15 | 2015/16 |
|---|---|---|---|---|
| Ensure long-term financial sustainability. | Turnover | | R1,412 billion | R1,509 billion |
| | Operating costs | | R1,078 billion | R1,254 billion |
| | Net profit | | R284 million | R243 million |
| Enhance operational efficiencies in line with global ATM standards. | Total capital expenditure | | R137 million (with additional R29 million committed) | R230 million (with additional R491 million committed) |
| | Average systems availability | Communication | N/A | 99,61% |
| | | Navigation | N/A | 96,15% |
| | | Surveillance | N/A | 100% |
| Create a transformative organisation. | Overall EE representation | | 69,56% | 66,67% |
| Build a culture of safety. | Safety events per 100,000 air traffic movements | | 3,10 safety events per 100,000 air traffic movements | 2,73 safety events per 100,000 air traffic movements |
| Build a skilled and capable employee resource base. | Total number of ATS bursars | | 80 | 74 |
| | Total number of engineering learnerships | | 12 | 6 |
| | Training investment as percentage of a salary bill | | 3,68% | 7,57% |
| Develop enterprise-wide awareness for environmental impacts. | Total number of employees trained on environmental training programmes | | 312 incl. departmental training | 535 |
| | Total spend on environmental training | | R506,610 | R135,320 |
| Manage the organisation's contribution to Climate change. | Total carbon inventory | | 19,135.47 tons CO2e | 25,510.96 tons CO2e |
| Manage and preserve scarce and vulnerable resources. | Overall annual electricity usage | | 18,320,612 kWh | 20,154,721.16 kWh |
| | Overall annual fuel usage | | 102,782 litres | 95,965 litres |
| Ensure constructive and collaborative stakeholder relationships | CSI spend | | R1,730,000 | R1,426, 576 |
| | Engineering Learnerships | | 12 | 6 |

# ABOUT THE INTEGRATED REPORT

## Scope and boundary of report

This is our fourth consecutive Integrated Report and covers the financial reporting period from 1 April 2015 to 31 March 2016. The 2015/16 Integrated Report combines financial and non-financial performance in a single, integrated reporting format. All references to forward-looking information and targets in the ATNS-IR are extracted from the 2016/17 ATNS Corporate Plan approved by the Board of Directors.

The boundary of this report is largely the ATNS legal entity. There may be instances for some of the material aspects where reporting has extended to other entities outside of the Company, as ATNS's operations are located at different airports.

The previous Integrated Report was approved by the ATNS Board on 16 August 2015 and published for the period 1 April 2014 to 31 March 2015. The 2014/15 suite of reports combined performance content, sustainability content and our Annual Financial Statements across three reporting volumes. A printed version of the three-volume suite of reports was published and a web-based version of each report was made available in PDF format.

## Approach to integrated reporting

The 2015/16 Integrated Report offers a comprehensive account of the Company's performance in terms of its ability to create value through the 'six capitals', as defined by the International Integrated Reporting Council (IIRC).

According to the IIRC:

*"The capitals... are: financial capital, manufactured capital, intellectual capital, human capital, social and relationship capital, and natural capital. Together they represent stores of value that are the basis of an organization's value creation."*[1]

Further:

*"Integrated Reporting is an approach to corporate reporting that demonstrates the linkages between an organisation's strategy, governance and financial performance and the social, environmental and economic context within which it operates".*[2]

ATNS harnesses the principle of 'materiality' to link disclosures on ATNS's financial, social and environmental performance to its strategic objectives and to the six capitals. Performance is also linked to the Company's developmental context, regulatory context, commercial context and its global business context. Materiality has been determined by the ATNS Board and Executive management through a process of extensive consultation within the organisation and with ATNS's stakeholders. The process further considered ATNS's strategic objectives whilst taking into account the Company's material risks, strategic opportunities and the ATNS value chain. It accompanies the Company's stand-alone Annual Financial Statements.

## Sustainability statement

As a signatory to multiple global conventions – including the Chicago Convention, which established the International Civil Aviation Organization (ICAO) as a specialised agency of the United Nations - South Africa's vision for sustainable development is embodied in the relationship between social systems, ecosystems and economic systems. These systems are not simply interlinked but also embedded within each other and underpinned by governance systems as described in the National Framework on Sustainable Development (2008). As a State-Owned Company - and national provider of air traffic management (ATM) services - we have a significant role to play in contributing to the sustainability agenda of the country. Our mandate from our Shareholder, represented by the Minister of Transport and the entire Department of Transport, directs us to contribute to both departmental and national outcomes by balancing the safe development of civil aviation, with the responsible consideration of our impacts on the economy, society and the environment.

Through our 2015/16 integrated reporting process, we disclose both financial and qualitative (non-financial) performance information as it relates to ATNS's business outcomes and the Company's contributions to the country's overall economic efficiency and ATM competitiveness. Our Integrated Report includes Standard Disclosures from the GRI Sustainability Reporting Guidelines.

[1] Capitals Background Paper for <IR>; p1, March 2013.
[2] The Roadmap to Excellent Integrated Reporting; (2013a) p.1, 2015.

## Referencing content online

The 2015/16 Integrated Report, and ATNS's Annual Financial Statements are available on our website as downloadable documents: http://www.atns.co.za/annualreports.

## Feedback

We welcome feedback on our integrated reporting to ensure that we continue to disclose information that is pertinent to all our stakeholders. For further queries or suggestions kindly contact: Ms Thandi Mosupye at marketing@atns.co.za.

## Navigating this report

Performance commentary in ATNS-IR pertain to material issues that specifically align with the Company's key strategic objectives. Accordingly, performance commentary is linked to strategic objectives throughout the report by means of the following icons:

### ICONS ASSOCIATED WITH THE SIX CAPITALS


Financial capital


Manufactured capital


Intellectual capital


Human capital


Social and relationship capital


Natural capital.

### ICONS ASSOCIATED WITH STRATEGIC OBJECTIVES


Ensure long-term financial sustainability


Enhance operational efficiencies in line with global ATM standards


Develop leadership capability in Africa ATM space


Create a transformative organisation


Build a culture of safety


Build a skilled and capable employee resource base


Manage the organisation's contribution to Climate Change


Manage and preserve scarce and vulnerable resources


Develop enterprise-wide awareness for accountable environmental impact


Maintain an impeccable governance framework


Ensure regulatory alignment and compliance


Ensure constructive and collaborative stakeholder relationships

## Assurance

ATNS's integrated assurance plan encompasses the assurances provided by the Company's Board of Directors, management, internal specialists, internal and external audit functions and other business advisers.

TABLE 1: OVERVIEW OF ASSURANCE CONTENT, PROVIDERS, FRAMEWORKS AND OUTCOMES

| Assurance content | Assurance providers | Assurance frameworks, standards and guidelines | 2015/16 outcome |
|---|---|---|---|
| Annual Financial Statements (AFS) | • ATNS Board of Directors<br>• The Company's directors<br>• External auditors: Rakoma and Associates. | • Financial Reporting Standards<br>• Requirements of the Public Finance Management Act (PFMA) of South Africa<br>• Companies Act of South Africa<br>• Public Audit Act of South Africa<br>• International Standards on Auditing (ISA) | Unqualified audit report achieved for 2015/16. |
| Risk management and review of the efficacy of internal controls (including fraud risk) | • ATNS Board of directors<br>• ATNS Audit and Risk Committee<br>• ATNS Internal Audit function<br>• ATNS Risk and Compliance Department<br>• ATNS IT Steering Committee<br>• External auditors: Rakoma and Associates<br>• The Company's directors | • ICAO Standards and Recommended Practices (SARPs).<br>• The King Code of Governance for South Africa (2009) (King III).<br>• Requirements of the Public Finance Management Act (PFMA) of South Africa<br>• ISO standards relating to safety and environment<br>• ERM and compliance standards including guidelines relating to the Risk Management and Compliance Institute of South Africa.<br>• The Civil Aviation Act (Act 13 of 2009), supported by Civil Aviation Regulations and Technical Standards.<br>• Key Performance Areas (KPAs) stipulated in the Shareholder Compact. | Seven whistle blowing matters were reported for the year. Four were finalised; and three were reported during the last quarter of the year and were under investigation at the end of the financial year. |
| Corporate Governance and regulatory compliance (including IT governance) | • ATNS Audit and Risk Committee<br>• ATNS Board of Directors<br>• ATNS's Internal Audit Function<br>• ATNS IT Steering Committee<br>• Permission Planning Committee | • ICAO Standards and Recommended Practices (SARPs).<br>• The Civil Aviation Act (Act 13 of 2009), supported by Civil Aviation Regulations and Technical Standards.<br>• The King Code of Governance for South Africa (2009) (King III).<br>• Requirements of the Public Finance Management Act (PFMA) of South Africa<br>• Companies Act.<br>• Permission applications as mandated by the Regulating Committee in its Approach Document.<br>• Relevant Key Performance Areas (KPAs) stipulated in the Shareholder Compact.<br>• ATNS Code of Ethics | Zero material non-compliance findings. |

| Assurance content | Assurance providers | Assurance frameworks, standards and guidelines | 2015/16 outcome |
|---|---|---|---|
| Broad-Based Black Economic Empowerment, representation and contributor level | • ATNS Internal Audit function<br>• ATNS Board<br>• ATNS Social and Ethics Committee<br>• ATNS Human Resource Committee<br>• ATNS Procurement Committee | • DTI Codes of Good Practice.<br>• B-BBEE Act and associated Charters.<br>• Generic Transport Public Sector Charter.<br>• Relevant Key Performance Areas (KPAs) stipulated in the Shareholder Compact. | • B-BBEE Level 2 |
| Safety management and performance | • ATNS Board of Directors<br>• ATNS Safety Committee<br>• ATNS Audit and Risk Committee<br>• External assurance provider: South African Civil Aviation Authority (SACAA) | • ICAO Standards and Recommended Practices (SARPs); ICAO Annex 19 requirement for States to implement ATS safety management programmes.<br>• The Civil Aviation Act (Act 13 of 2009), supported by Civil Aviation Regulations.<br>• South African Civil Aviation Regulations (CAR) Part 40.<br>• Relevant Key Performance Areas (KPAs) stipulated in the Shareholder Compact.<br>• ATNS Safety Management System (SMS) and SMS Policy.<br>• CANSO and EUROCONTROL Standards of Excellence | • Safety ratio: 2,73 per 100 000. |
| Environmental management and performance | • ATNS Board of Directors<br>• ATNS Social and Ethics Committee<br>• ATNS Project Management Office | • ICAO Standards and Recommended Practices (SARPs)<br>• Relevant Key Performance Areas (KPAs) stipulated in the Shareholder Compact.<br>• National Environmental Management Act (NEMA).<br>• Outcomes of the South African Civil Aviation Authority (SACAA) Aviation Environmental Protection (AEP) Forum.<br>• Greenhouse gas (GHG) Protocol Corporate Standard<br>• Carbon Disclosure Project (CDP) | • Carbon inventory completed for 2015/16.<br>• ATNS' total carbon inventory for the 2015/16 financial year: 25510.96 tonnes of $CO_2e$.<br>• Environmental training completed for more than 50% of ATNS employees. |
| Integrated Annual Reporting | • ATNS Board of Directors<br>• ATNS Company Secretary | • The King Code of Governance for South Africa (2009) (King III).<br>• Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines<br>• International Integrated Reporting Framework V1.0 (International Integrated Reporting Council (IIRC))<br>• United Nations Global Compact (UNGC).<br>• Carbon Disclosure Project (CDP) | • Board-approved Integrated Report, consolidating financial and non-financial information.<br>• Additional external assurance on certain aspects of the non-financial sustainability information reported in the Integrated Report |

## Statement of precautionary approach

The transport sector – particularly aviation - is a critical component of the economy, impacting on development and the welfare of the entire population – both as an enabler of economic wellbeing, and its beneficiary. When transport systems are efficient, they provide economic and social opportunities and benefits that impact throughout the economy. When transport systems are deficient or inefficient, they impact economies in terms the cost of reduced or missed opportunities – as well as adverse environmental impacts, such as increased carbon emissions and noise and air pollution.

As air traffic movements are expected to increase, flexible optimisation of the airspace is required to ensure that safety and an operationally-efficient environment are achieved. The aviation industry's impacts on the environment are evident globally and appropriate legislative frameworks are being adopted by the ATM sector world-wide. South Africa is a signatory to the Chicago Convention, which established the International Civil Aviation Organization (ICAO) as a specialised agency of the United Nations. ICAO has made commitments to curb emissions in response to the United Nations Framework Convention on Climate Change (UNFCCC). As an ICAO member state, South Africa, and ATNS in particular, has an implicit and seminal role to play on the African continent to promote maximum compatibility between the safe and orderly development of civil aviation on the one hand and the quality of the environment on the other.

ATNS's further acknowledges the need for equitable consideration of key stakeholder groups in the context of our long-term growth strategy and to continuously improve on our reporting of both financial and non-financial impacts.

## Board Approval Statement

The ATNS Board, assisted by its various committees, is ultimately responsible for overseeing the integrity of the 2015/16 Integrated Report.

The Board has applied its collective mind to the preparation and presentation of the Integrated Report and has concluded that this report is presented in accordance with the International Integrated Reporting Framework v1.0. The Integrated Report also contains Standard Disclosures from the GRI Sustainability Reporting Guidelines.

The Integrated Report was approved by the Board on 2 August 2016, and signed on its behalf by:

**Chairperson**
Ms Phindile Riba

**Chief Executive**
Mr Thabani Mthiyane

**Chief Financial Officer**
Mr William Ndlovu

2 August 2016
Johannesburg

# ORGANISATIONAL PROFILE

## Vision

To be the preferred supplier of air traffic management solutions and associated services to the African continent and selected international markets.

## Mission

To provide safe, expeditious and efficient air traffic management solutions and associated services, whilst ensuring long-term economic, social and environmental sustainability.

## Values

- Accountability
- Safety and customer service
- Continuous improvement and innovation
- Employee engagement and development
- Fairness and consistency
- Open and effective communication
- Responsibility and care towards the Environment and communities

## Nature of business

The Air Traffic and Navigation Service Company Limited (ATNS) is a State-Owned Company (SOC), established in 1993 in terms of the ATNS Company Act (Act 45 of 1993) to provide air traffic management solutions and associated services on behalf of the State. These services accord with International Civil Aviation Organisation (ICAO) standards and recommended practices, and the South African Civil Aviation Regulations and Technical Standards. As an air navigation services provider (ANSP), ATNS is governed by the nation's legislative and administrative framework. ATNS is also a commercialised ANSP operating on the "user pay" principle that relies on current revenues and debt funding for its operational and capital expenditure requirements.

The Company has its head-office at Eastgate Office Park, Block C, South Boulevard Road, Bruma, (Postal code: 2198) in Gauteng.

## Principal activities

### Regulated Business

At present 90% of ATNS's revenue is facilitated through its regulated business.

#### Air navigation services and infrastructure

Air navigation infrastructure and services consist of three main components:

1. Communications infrastructure, Navigation infrastructure and Surveillance infrastructure.
2. Auxiliary aviation services, such as aeronautical information publications, flight procedure design and aeronautical surveys.
3. Air traffic management.

ATNS's infrastructure and service development is informed by user expectations and regulatory requirements at a global level; as well as new technologies and the needs of the air traffic management (ATM) community.

## TABLE 2: CURRENT AND NEW PRODUCTS AND SERVICES

| Existing products | New products and services in development |
|---|---|
| • Air Traffic Flow Management (ATFM) | • Continuous Descent Management (CDM) |
| • Training | • Air Traffic Flow Management (ATFM) – (DCB), Technical Services (TS) |
| • Air Traffic Services (ATS) – Air Traffic Control (ATC) and Aeronautical Information Management (AIM) | • Carbon credits (efficient procedures/technologies) |
| • VSAT + | • Information/knowledge services, (e.g. XTRAX, A-SMGCS, 4D trajectory management information) |
| • Technical support | • New consulting services (high visibility ATM event planning e.g. ASBU) |
| • Billing bureau | • African Centralised Aeronautical Database (A_CAD) |
| • Surveys | • A_FRC |
| • Consultancy | • ATM support tools |
| • Slot coordination | • Flight calibration/inspection |
| • Flight procedure design | • Aeronautical information management |
| • Aeronautical information services | |
| • Fast-time simulation | |
| • Data set management (e.g. display systems) | |
| • CAD | |

## TABLE 3: MARKET SEGMENTS AND GEOGRAPHICAL MARKETS

| Current markets | New markets |
|---|---|
| RSA – Statutory | Selected global ATM markets |
| RSA – Contractual | |
| SADC – Prioritised | |
| Africa and surrounding ocean islands | |

### Air traffic service charges

As a monopoly service provider, ATNS is regulated economically by the Economic Regulating Committee (RC), which is a statutory body formed and appointed by the Shareholder, the DoT. The RC is empowered by the ATNS Company Act (Act 45 of 1993) to issue permission to ATNS. The permission regulates the increase in specified tariffs that ATNS can issue and determines minimum service standards for the regulated business. Through the permission, ATNS is authorised to levy air traffic service charges on users (aircraft operators) for the use of air navigation infrastructure and the provision of an air traffic service. The permission has a five-year cycle.

An air traffic service charge is composed of the sum of variable costs (VC), business sustainability costs (BSC) and fixed costs (FC) for each distinct aerodrome, terminal manoeuvring area (TMA) access, and area movement undertaken.

TABLE 4: ATNS AIR TRAFFIC SERVICE CHARGES FOR THE REGULATED BUSINESS

| Main mass category | Cost component | Formulas and coefficients | | Area charge |
|---|---|---|---|---|
| | | Aerodrome charge | TMA access charge | |
| FAJS ↖ 5,000 kg | Variable Cost (VC) | R27,87 | R27,87 | |
| | Business Sustainability (BSC) | R113,24/10 000,MCM | R113,24/10 000,MCM | |
| | Fixed Costs (FC) | R59,74 | R110.38 | |
| 5,000 kg MCM ← ↖ 5,000 kg | VC | R27,87 | R27,87 | R27,87 |
| | BSC | R113,24/10 000,MCM | R113,24/10 000,MCM | R113,24/10 000,MCM |
| | FC | R119,51/10 000.MCM | R22,08/1 000.MCM | R15,84/100 000.MCM.d |
| → 15,000 kg | VC | R27,87 | R27,87 | R27,87 |
| | BSC | R138,67/100.√MCM | R138,67/100.√MCM | R138,67/100.√MCM |
| | FC | R146,38/100.√MCM | R270,38/100.√MCM | R194,09/100.√MCM |

* MCM: Maximum Certificated Mass

Each rand-value coefficient in Table 4 is multiplied by:

- 100% for a domestic flight;
- 100% for a regional flight; and
- 100% for an international flight.

Except in the case of FCs for aerodrome and TMA access charges at OR Tambo International Airport (FAOR) for aircraft with MCM <5,000 kg where the coefficient as stated in the table applies.

During 2015/16 the new permission application was submitted, and is due to commence in 2015/16 up until 2019/20. This permission application presents a new Economic Regulatory chapter for ATNS in the form of a new Permission. ATNS engaged the Airline Industry as part of the permission process. ATNS is actively collaborating with the Regulating Committee to ensure favourable and sustainable outcomes for the industry.

## Aviation Training Academy

ATNS runs a successful training institution as a division within the Company, namely: the Aviation Training Academy (ATA). The ATA offers a full range of air traffic services training, technical support training and related training in the disciplines of engineering, air traffic services and management. Training is provided to delegates in South Africa and the broader African continent. The ATA is an ISO9001: 2008 accredited institution and has international cooperation agreements in place with partners such as the Embry Riddle Aeronautical University, Ecole Nationale de l'Aviation Civile (ENAC) and the University

of the Witwatersrand (WITS), enabling the academy to maintain mutually beneficial partnerships in the presentation and accreditation of international courses in air traffic services (ATS). The ATA has been awarded the IATA Regional Training Partner Award for five consecutive years and was designated as an IATA Premier Circle Member in 2015.

### Non-regulated business

ATNS's non-regulated business currently contributes 10% of the Company's revenue. The non-regulated business encompasses a long-term strategy to facilitate regional expansion through a subsidiary vehicle presently known as NEWCO. The subsidiary will enable the Company to take a more robust and agile stance in the non-regulated business market without posing undue risks to its regulated market and shareholder. It will also enable ATNS to enter into joint ventures and partnerships with external suppliers so that the Company can harness more valuable market opportunities and extend its regional influence and reach.

## Structure of ATNS's operations

ATNS is a State-Owned Company incorporated as a limited liability company, the Company has a Board of Directors appointed by the Minister of Transport to provide oversight and guidance on the implementation of the ATNS Mandate. Our business model is based on our strategy and value chain, which comprises three main blocks:

1. ATM Operational Concept and Global Air Navigation Plan (GANP).
2. Enabling infrastructure and resources.
3. ATM and technical support operations.

The operational concepts are supported by corporate and support functions. The corporate function determines the direction of the Company as mandated by the Board through strategy formulation and execution by the Chief Executive Officer (CEO). The corporate function ensures that executives plan adequately and utilise resources optimally as dictated by the five-year permission cycle. Planning for strategic execution is also driven by departmental business and operational plans.

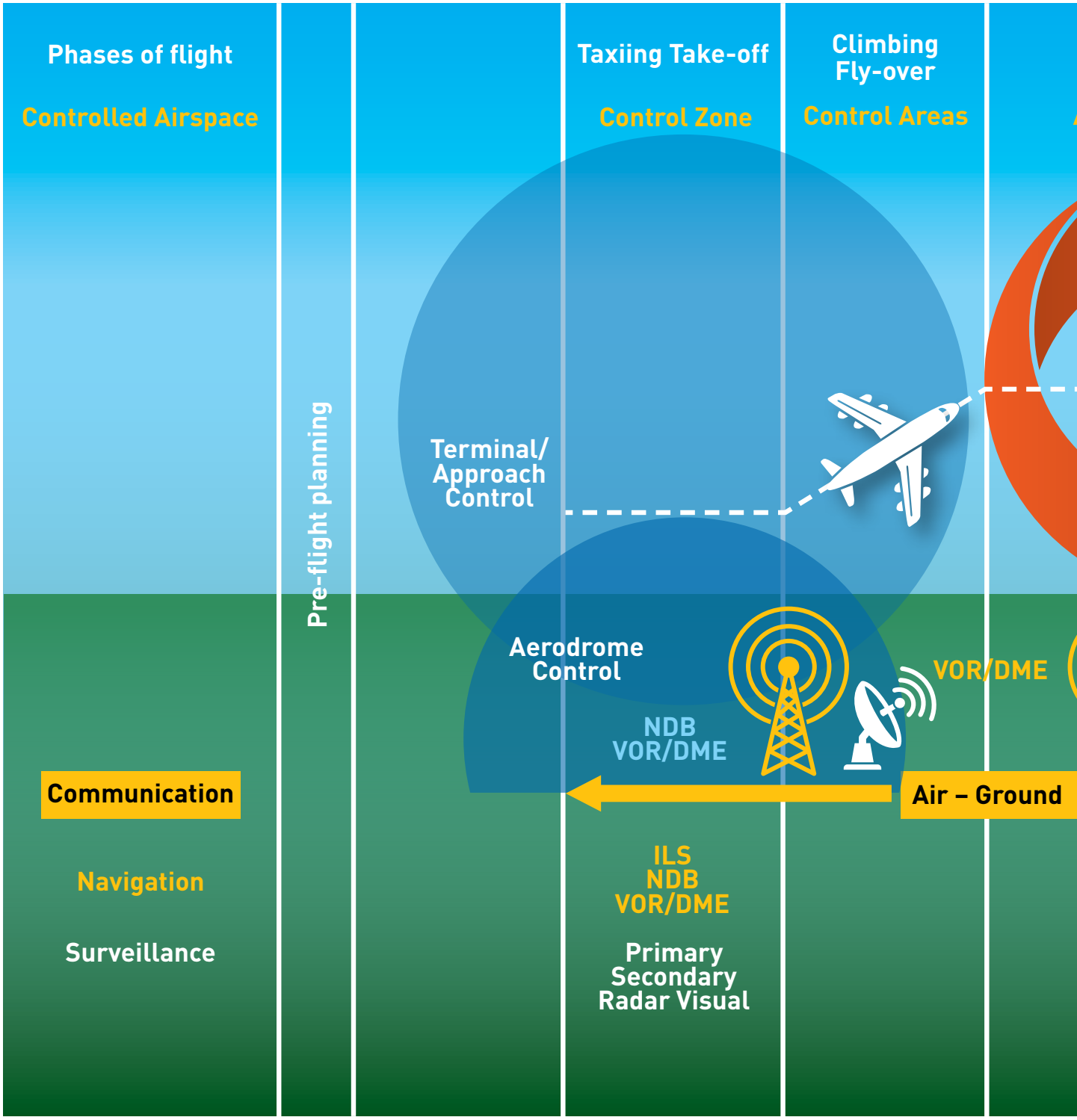
ATNS's corporate function is supported by various governance and compliance frameworks and an operating environment, comprising of:

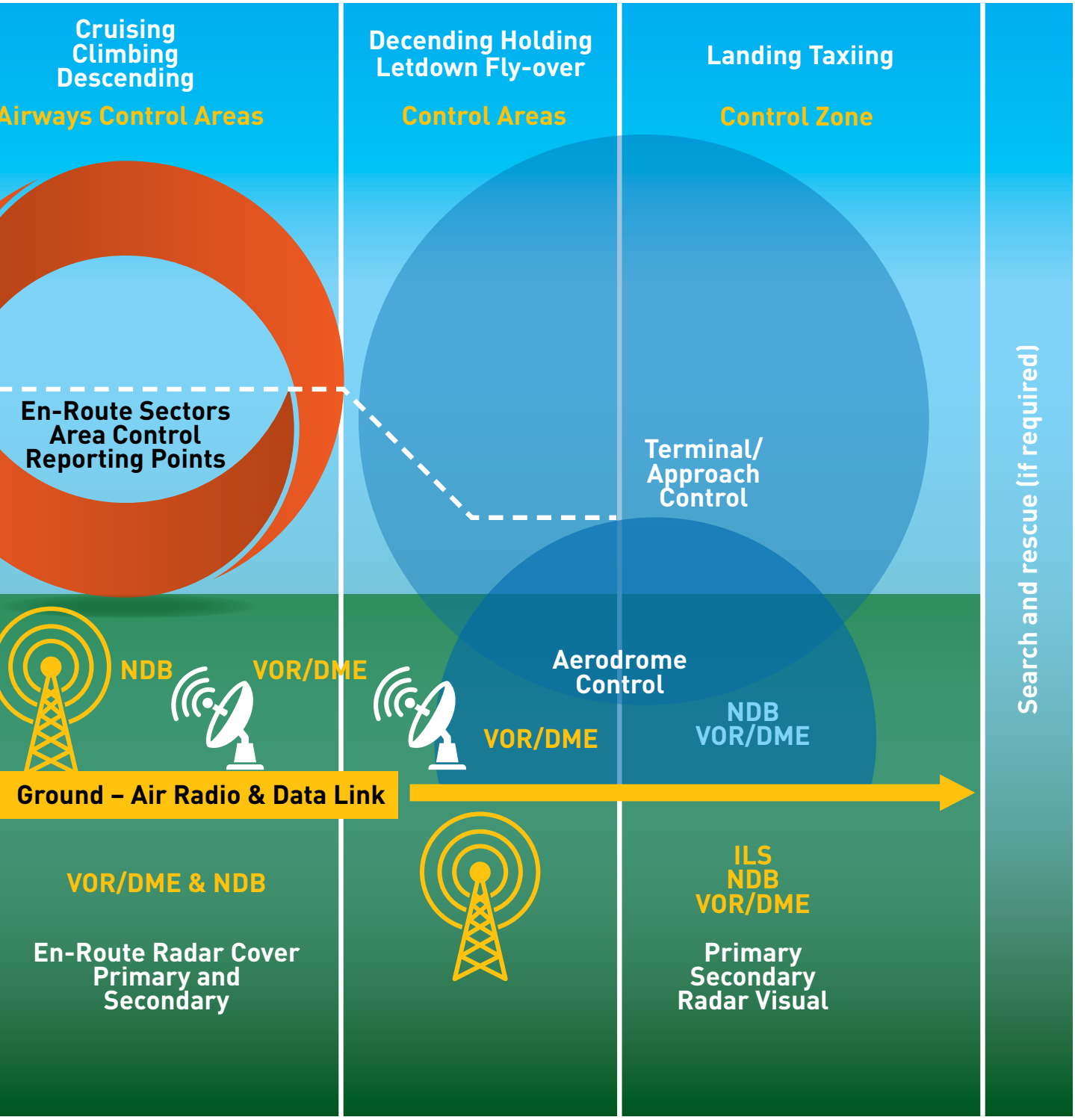
- Human capital.
- Finance.
- Information technology.
- Risk and compliance.

### ATNS Services

ATNS' services support seamless gate-to-gate operations. This concept encompasses the taxi-out and departure, climb out, cruise, descent, arrival, landing and taxi-in phases of a flight. The air traffic management (ATM) service delivery component is enabled by an advanced ATM system deployed at the Johannesburg and Cape Town air traffic control centres and associated terminal control units using enabling technologies such as communications, navigation and surveillance systems. The illustrated value chain (Figure 1) is scalable across the total user-demand spectrum in the South African airspace.

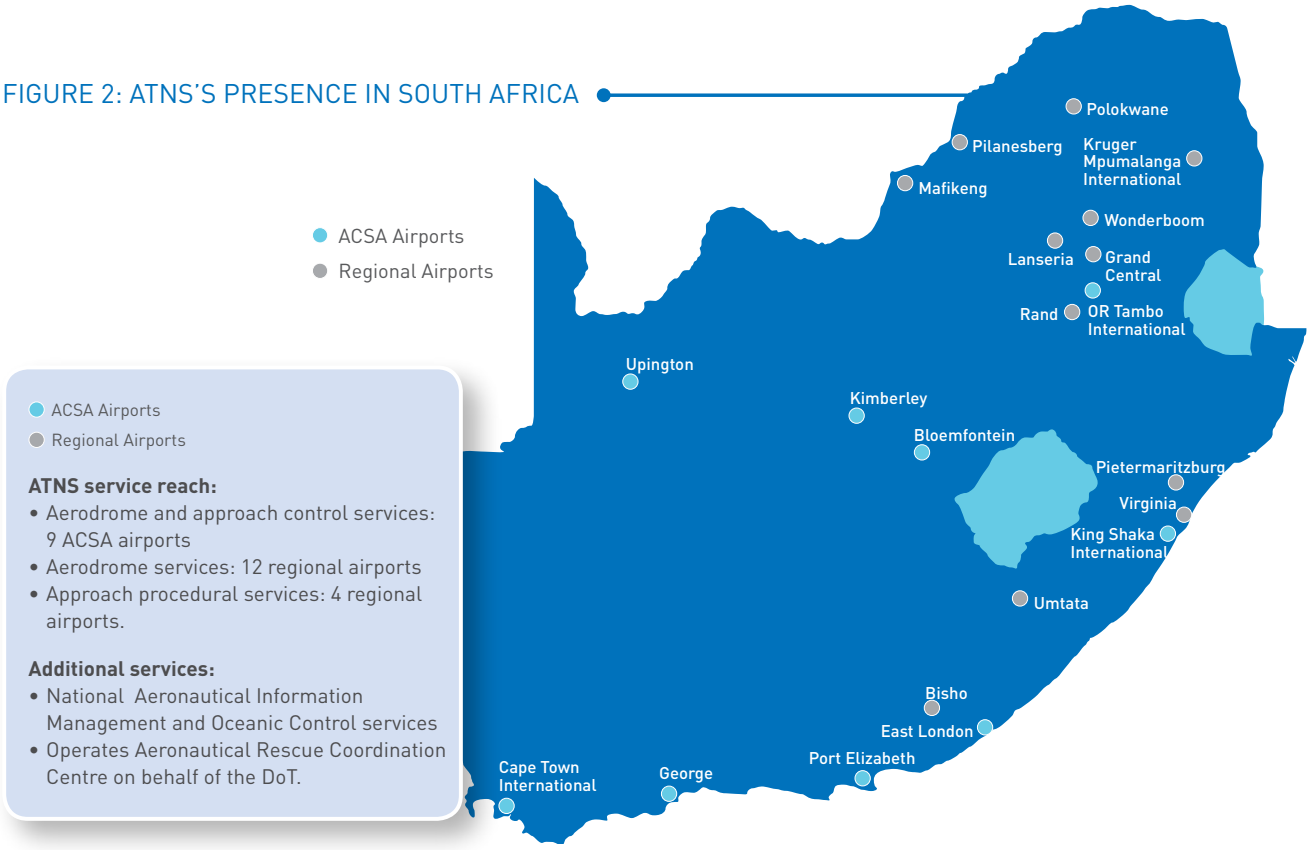
FIGURE 1: ATNS SERVICE OVERVIEW




Cruising
Climbing
Descending
Airways Control Areas
Decending Holding
Letdown Fly-over
Control Areas
Landing Taxiing
Control Zone
En-Route Sectors
Area Control
Reporting Points
Terminal/
Approach
Control
Search and rescue (if required)
NDB
VOR/DME
Aerodrome
Control
VOR/DME
NDB
VOR/DME
Ground – Air Radio & Data Link
VOR/DME & NDB
En-Route Radar Cover
Primary and
Secondary
ILS
NDB
VOR/DME
Primary
Secondary
Radar Visual

## 2.3.2 ATNS's presence in South Africa

FIGURE 2: ATNS'S PRESENCE IN SOUTH AFRICA

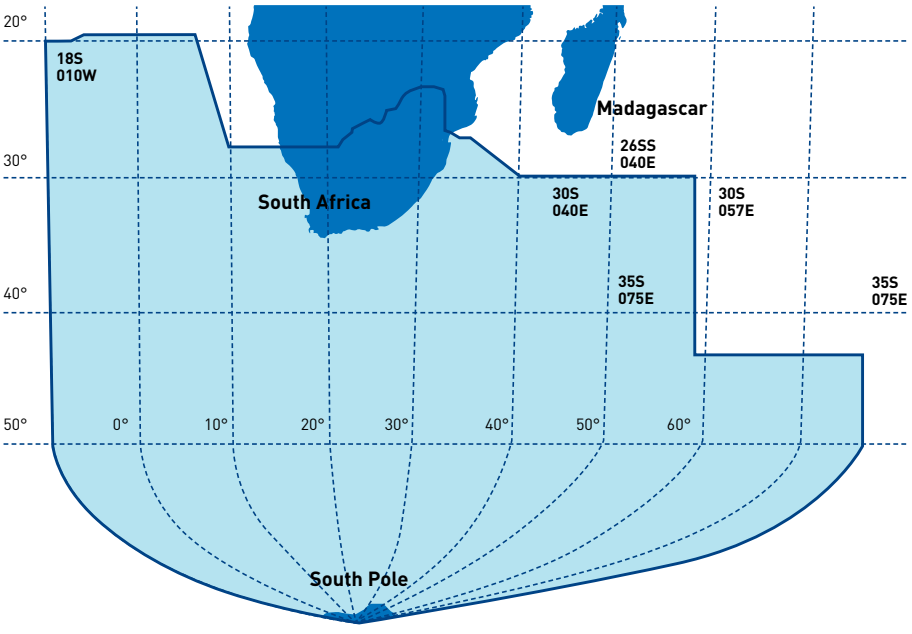



ACSA Airports
Regional Airports

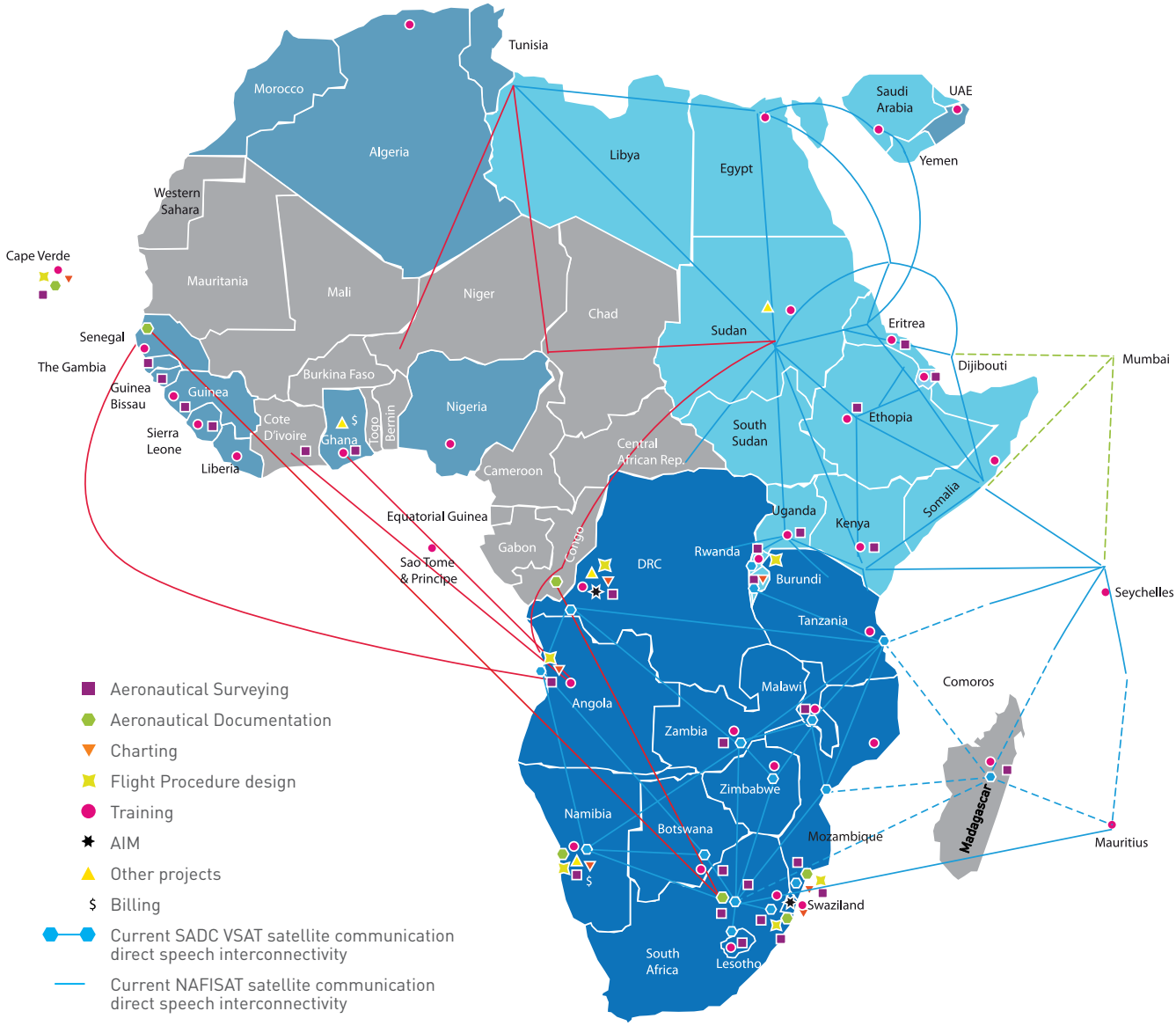
**ATNS service reach:**
- Aerodrome and approach control services: 9 ACSA airports
- Aerodrome services: 12 regional airports
- Approach procedural services: 4 regional airports.

**Additional services:**
- National Aeronautical Information Management and Oceanic Control services
- Operates Aeronautical Rescue Coordination Centre on behalf of the DoT.

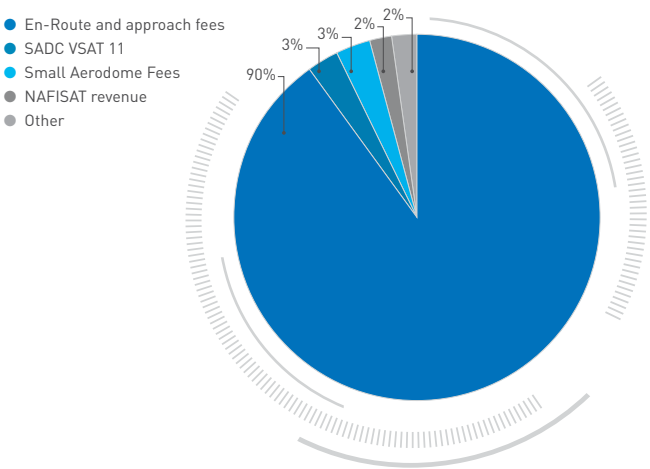
FIGURE 3: ATNS AFRICAN INDIAN OCEAN (AFI) REGIONAL AIRSPACE COVER



## FIGURE 4: ATNS'S EXTENDED SERVICES ON THE AFRICAN CONTINENT AND BEYOND




## GRAPH 1: ATNS REVENUE SOURCES



## Business objectives and objective measures for 2015/16

The table below links ATNS's business objectives to the objective measures used to ensure the Company achieves its desired strategic outcomes for the reporting year. Refer to the section titled 'Review of performance against key performance indicators' on page 135 of this report for a perspective on ATNS's overall achievement of key performance indicators for the year, as set out in the Company's Shareholder Compact with the Department of Transport.

### TABLE 5: BUSINESS OBJECTIVES AND MEASURES FOR 2015/16

| KPA no. | Business objectives | Objective measures for 2015/16 |
|---|---|---|
| **1.** | **Transport safety and security** | |
| 1.1 | • Safety service provision | • Improve the Risk Safety Index (RSI). |
| 1.2 | • Airspace capacity and efficiency | • Increase airspace capacity in line with runway throughput determined by ATNS and ACSA jointly. |
| 1.3 | • Operational efficiency | • Reduce overall traffic delays. |
| 1.4 | • Operational efficiency | • Achieve of service availability. |
| 1.5 | • Ensure commercial sustainability | • Ensure financial sustainability. |
| 1.6 | • Performance-based navigation (PBN) | • Implement ICAO PBN concept in South Africa.<br>• Near-term implementation targets in line with South African PBN Roadmap. |
| **2.** | **Infrastructure development and high-level investment plan for Transport** | |
| 2.1 | • Development of optimised and efficient aviation infrastructure in a cost-effective manner. | • Adopt and approve CAPEX.<br>• Implement CAPEX 2015/16.<br>• Strategic plan.<br>• Roadmap.<br>• Operational plan. |
| 2.2 | • Operation of the satellite communication networks.<br>• SADC VSAT 2. | • Optimise revenue and ensure network availability. |
| 2.3 | • Operation of the satellite communication networks.<br>• NAFISAT. | • Optimise revenue and ensure network availability. |
| **3.** | **The fight against fraud and corruption** | |
| 3.1 | • Comply with relevant legislation, regulation and standards. | • 100% compliance. |
| 3.2 | • Fraud and whistle-blowing policy. | • Fighting corruption and promoting good governance. |
| **4.** | **Environmental protection** | |
| 4.1 | • Implementation of environmental plan. | • Minimise gaseous emissions. |
| | | • Human resources/training on sustainability issues. |
| | | • Performance assessment. |

| | | |
|---|---|---|
| **5.** | **Training to contribute to job creation** | |
| 5.1 | • Address societal challenges, thereby building a meaningful legacy for ATNS and the communities in which we operate. | • ATS bursaries and engineering learnerships. |
| 5.2 | • Manage the training pipeline for ATS and technical staff. | • Adoption and approval of HC plan as per budget.<br>• ATS and TS training plan.<br>• Operational or implementation plan. |
| 5.3 | • Review and implement the HR plan to recruit, develop, retain, and reward employees across all disciplines. | • Development programmes for employees, with emphasis on AIC and women. |
| **6.** | **Broad-Based Black Economic Empowerment (B-BBEE)** | |
| 6.1 | • Achieve B-BBEE targets.<br>• Achieve preferential procurement targets as set by the Transport Charter. | • Percentage of discretionary spend on B-BBEE.<br>• Total discretionary OPEX budgeted.<br>• Total CAPEX budgeted. |
| **7.** | **Employment equity** | |
| 7.1 | • ATS EE targets (AIMO, ATSO, ATCO 1-3). | • Achieve representation towards alignment of company staff profile with the demographics of the country. |
| 7.2 | • ATNS EE targets. | • Increase representation of black (AIC) racial grouping with a particular focus on African and female representation towards creating alignment with the demographics of the country. |

## Contextualising our operations

### Regulatory context

The global aviation regulatory environment was formed through the International Civil Aviation Organization (ICAO), a specialised body of the United Nations Organization responsible for global civil aviation. ICAO was established through the Chicago Convention, as signed by participating states in 1944. South Africa is a signatory to the convention and has acceded to abide by the terms and conditions of the convention.

In terms of Article 28 of the Chicago Convention, the South African Government is required to provide air navigation services and infrastructure in compliance as promulgated from time to time by ICAO. The convention makes provision for the State to delegate responsibility for the provision of services; however, the State remains accountable for ensuring compliance with the standards and recommended practices.
To ensure quality adherence and compliance with ICAO standards and recommendations, as well as with the South African Civil Aviation Regulations, the State established the South African Civil Aviation Authority (Act 40 of 1998), which is tasked with the safety regulation and oversight of civil aviation in South Africa. Given that ATNS is the monopoly provider of the national en-route as well as approach and aerodrome services at ACSA airports, the Regulating Committee for ACSA and ATNS was established through both the ACSA Act (Act 44 of 1993) and the ATNS Act (Act 45 of 1993). This ensures independent economic and service standard regulation and oversight of ATNS and prevents abuse by ATNS of its monopoly position, whilst at the same time ensuring that ATNS remains sustainable as an independent, self-funding, State-Owned Company.

## Economic regulation

ATNS is a commercialised ANSP operating on the "User Pays" principle that relies on current revenues and debt funding for its operational and capital expenditure requirements. Tariffs are levied to "Users" on the basis of permission granted by the Economic RC.

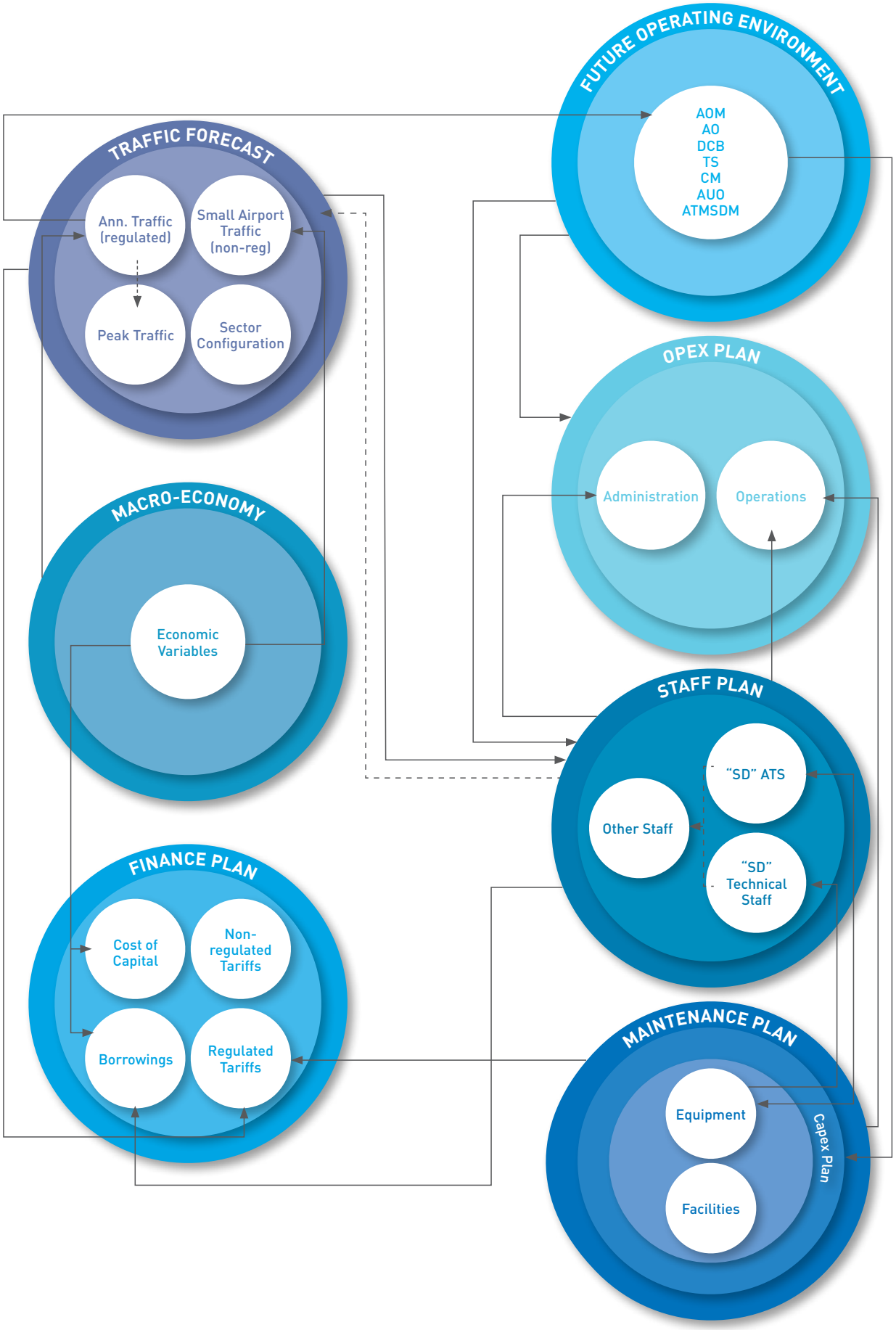
As stated above, ATNS, as a monopoly, is regulated by the Economic Regulating Committee – a statutory body formed and appointed by the Shareholder, the DoT. The committee is empowered by the ATNS Company Act (Act 45 of 1993) to issue a permission to ATNS based on a permission application spanning a five-year period.

The permission application details ATNS' service provision and standards. It includes infrastructure as well as human and non-financial resource requirements to achieve ATNS's goals over the five-year period of the permission. In this regard, the regulatory regime provides ATNS with a licence to operate.

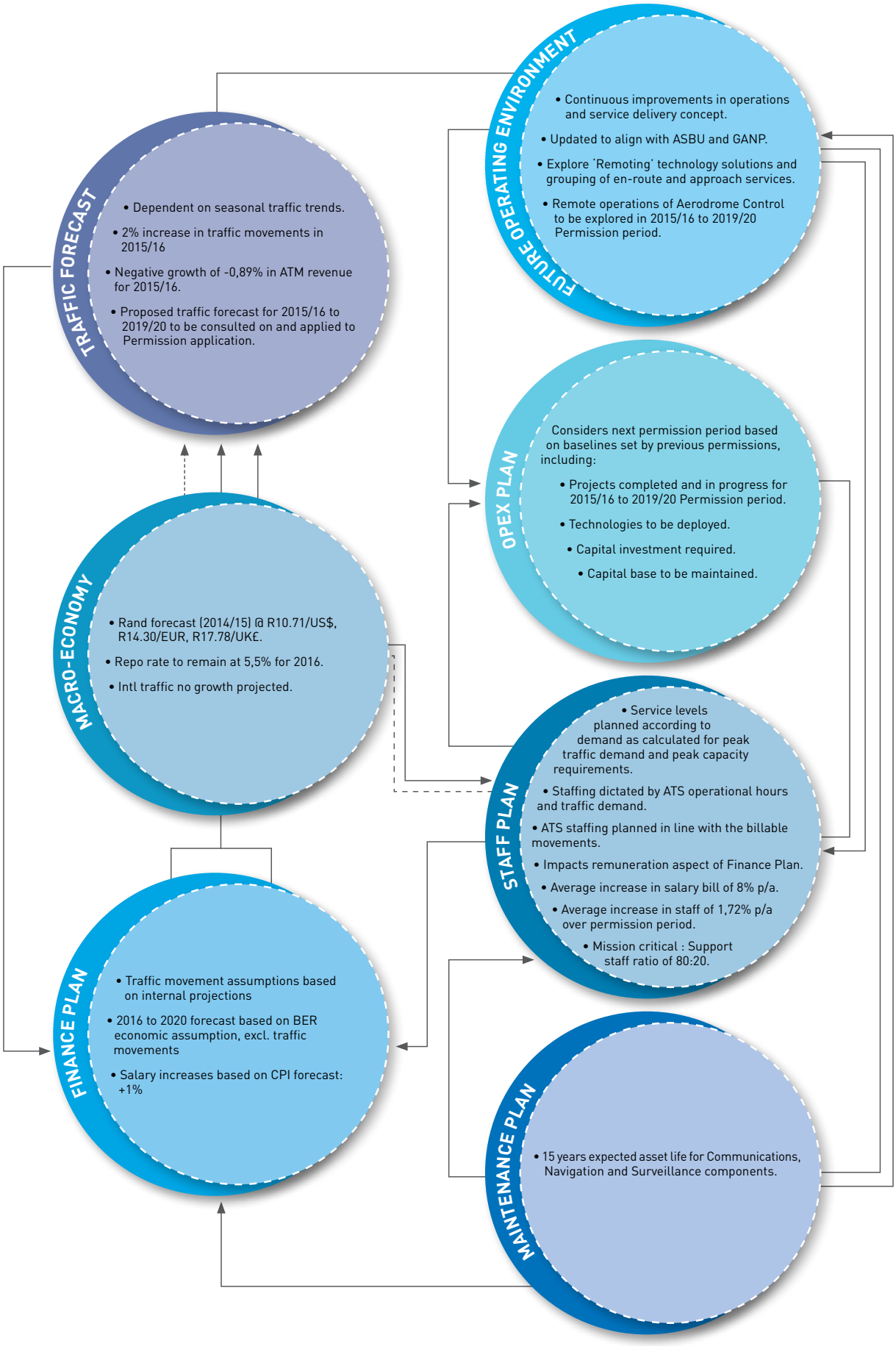
ATNS established a Permission Planning committee (PPC) as a permanent EXCO sub-committee to facilitate the permission planning process. The PPC facilitates the proper and systematic planning of the ATNS business and also guides the process of compiling permission modules in preparation for permission submissions. There are eight modules that assist in building the permission application:

## FIGURE 5: PERMISSION MODULE OVERVIEW

FIGURE 6: PERMISSION MODULE INTERDEPENDENCY



## FIGURE 7: PERMISSION MODULE INTERDEPENDENCY



## Global business context

At a global level, civil aviation is planned to be seamlessly integrated across national boundaries, with common service standards and quality, irrespective of who provides the Air Navigation Service – be it a State, a group of States or delegated service providers. The States that are members of ICAO have endorsed the ICAO Global Air Traffic Management Operational Concept, which defines the seamless global aviation system concept. This concept is, in turn, translated into the Global Air Navigation Plan (GANP), supported by the Global Aviation Safety Plan (GASP) and underpinned by the ICAO Standards and Recommended Practices (SARPs).

The GANP is translated into a Regional Air Navigation Plan (RANP), which takes account of the regional differences in the demand placed on the air navigation system, as well as the level of development in the region. The RANP is underpinned by regional plans for air traffic management, communications, navigation and surveillance systems.

The Africa Indian Ocean (AFI) Regional Plan is encapsulated in the ICAO document 7030/4. This forms the basis of the South African National Airspace Master Plan (NAMP), which is approved by all the aviation stakeholders in South Africa. The NAMP gives rise to the ATNS Air Traffic management (ATM) and Enabling Technologies Roadmaps, which meet the requirements of the ICAO SARPs and South African Civil Aviation Regulations and Technical Standards. The ATM and Enabling Technologies Roadmaps represent ATNS's ATM service delivery plans, supported by the necessary communications, navigation and surveillance infrastructure.

## Developmental context

As a State-Owned Company, ATNS aims to advance and support National Governmental Outcomes – which aim to eliminate poverty and reduce inequality by the year 2030. Sustainable development, characterised by "inclusive and sustainable economic growth and decent work for all" is the cornerstone of moving South Africa forward. Aligned to the country's developmental objectives ATNS' strategy supports the following National Development Plan (NDP) enabling milestones:

- Increase employment from 13 million in 2010 to 24 million in 2030.
- Raise per capita income from R50,000 in 2010 to R120,000 by 2030.
- Increase the share of national income of the bottom 40% from 6% to 10%.
- Establish a competitive base of infrastructure, human resources and regulatory frameworks.
- Ensure that skilled, technical, professional and managerial posts better reflect the country's racial, gender and disability makeup.
- Establish effective, safe and affordable public transport.
- Play a leading role in continental development, economic integration and human rights.

### Statement of Strategic Intent and Shareholder Compact

ATNS's activities are informed by the Minister of Transport's Statement of Strategic Intent as well as our Shareholder Compact. We are further guided by the Medium-Term Strategic Framework (MTSF) 2014 – 2019, which is the first five-year implementation plan of the NDP. The DoT, and by extension ATNS, will focus on the implementation of four of the 14 outcomes for Government to achieve related MTSF outputs. These four outcomes are:

- Outcome 4: Decent employment through inclusive economic growth.
- Outcome 6: An efficient, competitive and responsive economic infrastructure network.
- Outcome 7: Vibrant, equitable and sustainable rural communities contributing towards food security for all.
- Outcome 10: Protect and enhance our environmental assets and natural resources.

To ensure practical solutions to the critical challenges affecting the Transport sector and the implementation of these solutions, the following strategic-oriented goals have been identified by the Department:

- An improved transport system.
- A transport sector that is safe.
- An efficient and integrated transport infrastructure network for social and economic development.
- Improved rural access, infrastructure and mobility.
- An increased contribution to job creation.

- An increased contribution of transport to environmental sustainability.

## Commitments to external initiatives

ATNS aligns with several external economic, environmental, and social initiatives:

### The ICAO Aviation System Block Upgrades (ASBU)

To meet the future challenges associated with air traffic growth, ICAO has collaborated with member states, industry and international organisations to develop the ASBU concept, which aims to ensure the following operational imperatives:

- Maintaining and enhancing aviation safety.
- Harmonising air traffic management improvement programmes.
- Removing barriers to future aviation efficiency and environmental gains at reasonable cost.

The ASBU concept allows for a flexible global systems approach, which enables all member states to advance their own air navigation capabilities based on their specific operational requirements. By implementing many of these modules, the adverse environmental effects of civil aviation activities can be minimised.

ATNS fully endorses the ASBU initiative as it is essential in setting the vision and framework for the global harmonisation of air traffic management.

### Civil Air Navigation Organisation (CANSO)

ATNS is a founding member of the Civil Air Navigation Organisation (CANSO) in Africa and plays a leading role on the African continent by hosting the CANSO Regional Office and collaborating with other entities regionally and globally in its visibly active involvement in ICAO, IATA, and other industry networks and associations.

### The USTDA/ATNS Space-based ADS-B Feasibility Study

As part of ATNS effort to improve the safety and efficiency of African aviation, ATNS in collaboration with the United States Trade and Development Agency (USTDA) contributed towards a funding grant to conduct a satellite surveillance feasibility study utilising the space-based ADS-B technology.

The study will establish a model for the deployment and operation of space-based global air traffic surveillance in selected African countries. The following advisory outcomes are anticipated as part of the study:

- Satellite services required.
- Equipage on the ground and in the air.
- System maintenance and training requirements.
- A financial model to support the deployment and operation of the Aireon system in Africa.

The main assessment will be focused on South Africa, but the study will also indicate basic equipment needs for other air navigation service providers (ANSP).

### The Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE) initiative

As part of its on-going commitment to reducing GHG emissions, ATNS is one of the founding members of the Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE), a partnership with airlines, ANSPs and airport partners to assess ways of reducing aviation's impact on the Environment. The INSPIRE partnership is intended to be a collaborative network of partners and peer organisations across the Arabian Sea and Indian Ocean region dedicated to improving the efficiency and sustainability of aviation.

### The GHG Protocol Corporate Standard

The first ATNS Carbon Emission Inventory and footprint was calculated using best practice methodology. A carbon inventory for an organisation involves accounting for all greenhouse gas (GHG) emissions released as a result of the operations of the organisation. In line with international leading practice, the calculation of a carbon inventory was done in accordance with the GHG Protocol Corporate Standard. ATNS continued to calculate its carbon footprint in the 2015/16 financial year, and is getting closer to setting targets that will ensure the reduction of emissions in daily operations.

## Alliance with the University of Pretoria's Department of Electrical Engineering and Computer Systems

In ensuring superior achievement of "Absorptive Capacity" and promotion of "Strategic Collaboration", ATNS has established a strong coalition with University of Pretoria's Department of Electrical Engineering and Computer Systems in the areas of telecommunication. The purpose of the alliance is to participate in the forefront research activities to deliver the world class research and educational output for the benefit of ATNS, the university and telecommunications industries. This initiative also aims to build capacity, and to create learning opportunities for both undergraduate and postgraduate engineering students who come from historically-disadvantaged backgrounds. Opportunities are created through the Engineering Graduate Development Programme, such as vacation work and bursary sponsorship.

## University of Johannesburg (Engineering Learnership)

Aviation Training Academy (ATA), a division of ATNS SOC Ltd, is fully accredited by several Universities of Technology (including UJ, DUT, CUT) to offer experiential learning programmes in Electrical Engineering (Electronic) Level I & II; and Computer Systems Engineering Level I & II. A student who successfully completes the programme receives accreditation upon submission of a fully documented logbook and subsequently the university awards a National Diploma in that respective discipline. The accreditation is valid for two years with an option to renew once the university conducts a full audit at ATA facilities.

## Letter from the Chairperson

I am pleased to present to you our integrated report for the 2015/16 financial year. The current Board took office on the 1 September 2015 with a great sense of responsibility and pride to be associated with one of the world's leading Global Air Navigation Service Providers (GANSPs). It is apparent that a firm foundation has been laid for ATNS to excel as a sustainable and integral provider of air traffic navigation services.

The existing strategy to leverage air traffic management expertise, solutions and services into the rest of the continent and select international markets is appropriate in the context of the global economic climate and evolving industry dynamics. The expansion beyond the regulated South Africa-specific market, which currently accounts for 90% of ATNS business, is necessitated by the maturity of the domestic markets and its increasingly limited revenue growth potential, even in the non-regulated local market.

Guided by the socioeconomic needs of our society, we are keenly aware that our operations and growth should never be divorced from the developmental outcomes we are mandated to achieve by our Shareholder. As ATNS, our mission is "to provide safe, expeditious and efficient air traffic management solutions and associated services." We do so through the use of best-in-class communications, navigation and surveillance (CNS) infrastructure. As such, the Africa expansion strategy has been amplified by our focus on our substantial infrastructure procurement expenditure to create and stimulate local manufacturing enterprises to become OEMs in providing key aviation technology components in the medium term through linkages with international OEMs. The ultimate goal is to ensure that these enterprises remain sustainable through partnership opportunities and to grow with ATNS into new markets.

Additionally, Our ISO9001:2008 accredited Aviation Training Academy (ATA) has an impressive track record in shaping some of South Africa's brightest minds in a full range of air traffic services training, technical support and related training in engineering and ATS disciplines. In this way, we are able to facilitate a pipeline of scarce and critical sector skills that not only create and fill jobs locally, but help us to lead in our field in the rest of Africa and in select international markets

In considering the developmental potential within our sector, it is noteworthy that the air transport industry in Africa currently supports 6,9-million jobs and contributes $80,5-billion to the African economy; and that air transport is also responsible for 35% of the world's trade by value. The South African aviation

industry supports 2,1% of local GDP and 227,000 jobs or 1,7% of the South African workforce. If we include the local tourism industry, these figures rise to 3,1% of South African GDP, creating 343,000 jobs, or 2,6% of the workforce. It is estimated that a 10% improvement in local air connectivity relative to GDP would see a R1,5 billion per annum increase in long-run GDP for South Africa's economy. Suffice to say, we operate within a prosperous and expansive global industry, with the potential for significant economic growth.

Globally, the outlook continues to be favourable for the airline industry, with economic expansion expected to continue. According to IATA, by end March 2016 international passenger demand rose 5,3% year on year, with airlines in all regions recording growth. A challenge for ATNS is that, despite a healthy international aviation sector, muted economic performance at home has slowed growth in passenger demand locally; however, with the weakening of the Rand in relation to other currencies, international inbound tourism is seeing growth, which positively impacts passenger demand internationally and spills over into domestic demand.

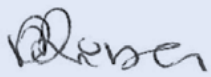
As a State-Owned Company, ATNS also has to balance growth and technological advancement in a fast evolving global aviation industry on the one hand, with the developmental outcomes of job creation and employment growth, as mandated by our Shareholder on the other. Many of the present vocations in the ATM sector will one day be augmented or even replaced by technology. This is a reality for many high-tech industries. We cannot yet imagine what these technologies will look like or exactly what roles they will fulfil in improving safety and ATM efficiency; but we know they are on the radar. ATNS, like other ANSPs, is exploring new technologies and operational structures that will change the way we interact with the aircraft we guide through the skies. Our challenge lies not simply in learning new ways to do our jobs, but rather - and perhaps more importantly – in balancing our leadership role as a sustainable world-class operator, with the influence of new technological innovations on our people – both enabling and disruptive. By carefully synchronising the development of our people and suppliers with astute infrastructure planning and investment, we can embrace a unique opportunity to capacitate the Company ahead of demand with the best infrastructure equipment and competencies to take us forward. And we have the opportunity to build on this model to expand our Africa business, which already contributes 10% of our overall revenue.

The unregulated business will become increasingly critical for the Company's growth and positioning on the continent. The potential of increased regional connectivity and improved airspace safety in Africa will contribute positively to economic growth – both for South Africa and for the continent. Our regional aspirations are guided particularly by the Africa Agenda 2063 – which seeks to mobilise programmes to achieve broad-scale social and economic transformation on the continent. The creation of an operating and governance model that aligns the regulated and non-regulated business – and embraces sound sustainability practices - is, therefore, of the utmost importance for ATNS's cross-border growth.

Looking ahead, as we celebrate 23 years of excellence, I trust that we will continue to inspire each other to excel in everything we do. This extends to fostering strong collaborative partnerships with other ANSP's to achieve a seamless global aviation environment, as envisaged by ICAO. As we progress, let us do so under the auspices of improved safety performance, a greener ATM solution; and by embracing technological advancements whilst ensuring sound business process integration along the way.

In closing, I would like to thank the outgoing Board of Directors for their contributions towards the outstanding achievements of ATNS thus far, specifically for ensuring that ATNS remains a leader in the ANSP space.

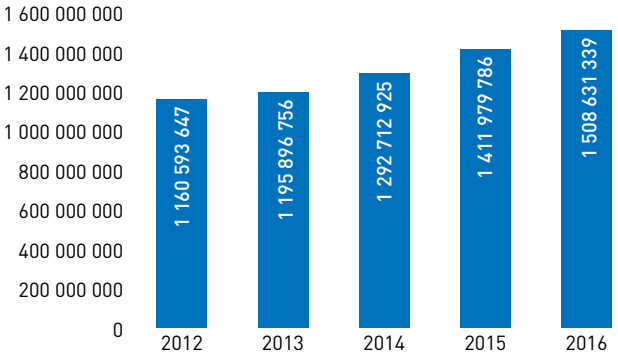
I would like to acknowledge the support of our Shareholder Representative, the Minister of Transport, Ms Dipuo Peters, as well as Deputy Minister, Ms Sindisiwe Chikungu and their officials in assisting us to meet our mandate. I further acknowledge the efforts of the incoming Board, the Executive, and all ATNS employees - present and former - for achieving 23 years of excellence. Together, let us stretch the far-reaching boundaries of our present attainment onto newer, even more fulfilling future horizons.



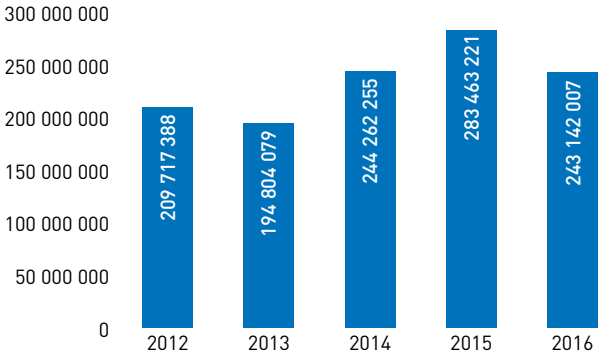
Chairperson
Ms Phindile Riba

# FINANCIAL PERFORMANCE HIGHLIGHTS

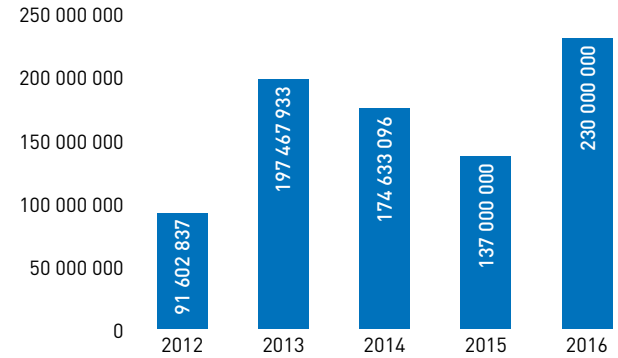
## TURNOVER



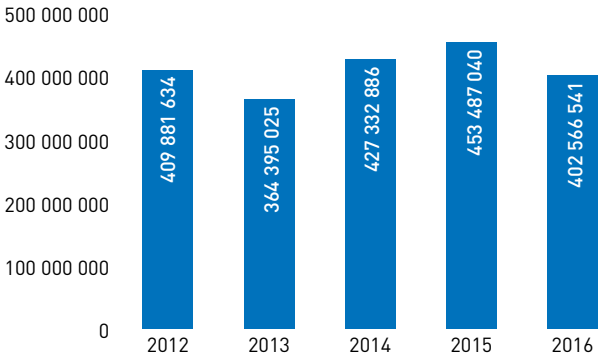

## NET PROFIT



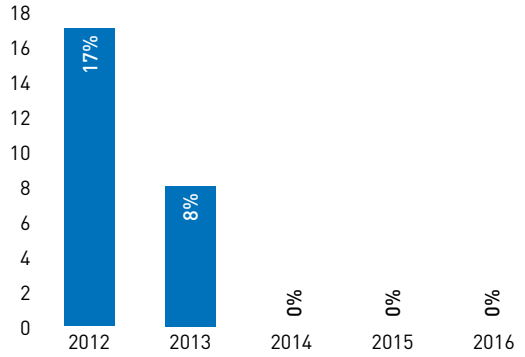

## CAPITAL EXPENDITURE



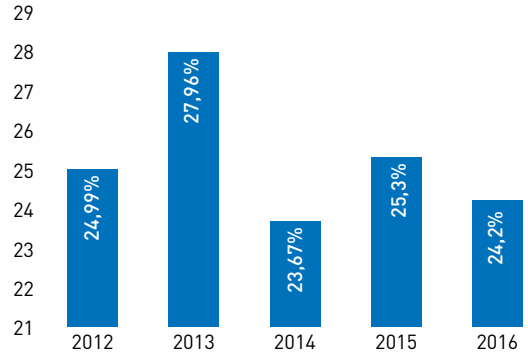

## EARNINGS BEFORE INTEREST, DEPRECIATION AND AMORTISATION (EBITDA)




## GEARING RATIO




## NET RETURN ON CAPITAL EMPLOYED (ROCE)



## Letter from the Chief Executive Officer

### Introduction

Sustainability is a mind-set. It cannot be limited to a department, and – whilst our impact on scarce resources and our eagerness to support the communities where we operate are critical sustainability considerations for us – they cannot be untangled from the holistic vision of ATNS's overall sustainability drive. Our 'sustainability' practices are what we need to do and live by each day to sustain our business and our mutual livelihoods well into the future. It relates to how we manage and use our financial resources, and how we invest in infrastructure; it's about caring for the wellness of our people and being full of care in how we impact our environment. Importantly, in our business, it's about ensuring safe skies and the safety of our people, suppliers, customers and the general public. It also relates to the relationships we build, and the innovations that make us proud; and it encompasses our ethics and the scarce competencies that enable us to lead in our field.

Ultimately, our long-term sustainability is dependent on our ability to focus this holistic, integrated mind-set to create mutual, exponential value for our company, our stakeholders and the wider economy. This said, our reporting has to follow suit.

I take great pleasure in presenting our 2015/16 Integrated Report. This year marks the fourth consecutive year of our integrated reporting process, and the first year in which we have followed the IIRC's six-capitals reporting approach – or the "6-Cs" as we have come to refer to them within the business. The 6 Cs refer to financial capital, manufactured capital, intellectual capital, human capital, social and relationship capital, and natural capital. Together they make up the 'stores of value' that form the basis of our value creation within the air traffic management (ATM) sector – both locally and across our borders.

This year's report gives a perspective on ATNS's approach to value creation as it transforms the capital inputs into value outcomes for the Company, our Shareholder and the country; and tracks our performance for the period 1 April 2015 to 31 March 2016 in terms of the issues we deem 'material' for our reporting.

## Performance through the six capitals

### Financial capital

South Africa's subdued economy presented a double-edged sword for the local tourism and aviation sectors, with the weakening Rand attracting international inbound tourism on the one hand but slowing down domestic travel on the other. Additionally, with the South African Reserve Bank raising interest rates, local consumer spending – and hence spending on domestic air travel - was adversely impacted by reduced disposable income. The tough market conditions resulted in some airlines discontinuing operations altogether.

With the ATM industry being strongly linked to growth in air traffic movements and overall economic growth, we, as ATNS, project our revenue based on expected growth in air traffic movements. The latter has a high correlation to Gross Domestic Product (GDP) at approximately 80%. Cumulative movements for the 2015/16 year increased by 2% to 324,445, a higher number of billable traffic movements than anticipated. There is, however, a 12- to18-month lag between changes in GDP and impacted air-traffic movements. We will, therefore, only observe the true financial impacts of the year's economic performance on air traffic movements in the year ahead, particularly for local operators.

Adding further pressure to our financial capital, ATNS did not increase tariffs during the year. However, a 2% increase in overall air traffic movements helped to mitigate the negative impact of the zero tariff increase, which will be amended and gazetted when the new Permission application process is concluded.

We continued to strengthen our financial and economic sustainability by pursuing new regional opportunities and by remaining internationally competitive, particularly in as much as our services relate to 'safe African skies'. This aspiration aligns with the bold vision of the African Union's Agenda 2063, which envisages a prosperous, interconnected African continent, based on inclusive growth and sustainable development. The Africa of the future will be connected through world-class infrastructure, including interconnectivity between island states and the mainland, and with a concerted push to finance major infrastructure projects to link African capitals and commercial centres through high-speed train networks, transport corridors and a best-in-class African aviation sector.

In this aspiring context, we have a strong imperative for securing future growth and revenue by expanding our service offerings to other markets, including the wider Africa market. Our regulatory environment restricts our revenue growth potential within the South African market by strictly applying tariff adjustments. Further, the maturity of ATNS's domestic operations - coupled with prevailing economic conditions subduing local in-country travel - will create challenges for the business to generate new customers in South Africa going forward. Consequently, our economic sustainability is strongly dependent on the successful execution of our Africa expansion strategy; and our revenue growth relies on our ability to develop new services and markets. We already have a strong technology and competency base in our regulated business from which to grow our international venture and have identified many economies of scale to support this growth.

It is prudent to acknowledge that the cross-border business will be funded in part by revenue from the regulated business; however, it is equally prudent to appreciate the potential for creating various interlaced layers of long-term economic value for the regulated business, as well as for our people, suppliers and customers through the mutual opportunities for economic development that will slipstream our expansion into Africa.

This year, revenue from operations amounted to R1,5 billion against a budgeted R1,3 billion. Tariff revenue amounted to R1,3 billion, exceeding budget by 11,1%. Our non-regulated revenue exceeded budget by R12,7 million (17,2%).

As the ATM sector moves towards greater commercialisation and becomes increasingly consolidated, ATNS has positioned itself to become one of the ten global ANSPs constituting the global air traffic safety market in the next five years. We will achieve this by taking a more proactive approach to the provision of products and services to more

countries, and by partnering with global suppliers. ATNS, as a State-Owned Company, has an explicit mandate to balance its financial imperatives with developmental outcomes for the economy. We, therefore, leverage our procurement expenditure to increase locally-developed content by supporting and developing local suppliers. We are also working to ensure that local manufacturing suppliers can benefit from our global partnerships in the long-term by creating business linkages between local suppliers and the mega international technology OEMs through our procurement and supply chain processes. In this way, local suppliers can be capacitated over time to become OEMs of key aviation technology components in the supply chain, thereby enhancing their own local, regional and international competitiveness, and ultimately, growing together with ATNS in its expansionary strategy.

ATNS achieved a B-BBEE qualification score of 87.51 points during the year, which is the equivalent of a Level 2 B-BBEE rating. Our total B-BBEE spend of total measurable procurement spend amounted to R381,144,298.74.

## Manufactured capital

In line with our Shareholder Mandate to deliver safe skies and customer-centric services, leading-edge technology is a central service enabler to create advanced infrastructural value for the Company and the country's air traffic navigation sector. Our Infrastructure Investment Strategy and Capital Expenditure Plans are key enablers of this infrastructure value. A critical guiding paradigm is that of the International Civil Aviation Organisation (ICAO) Aviation System Block Upgrades (ASBU) concept. In essence, the ASBU concept promotes global quality standards around the maintenance and enhancement of aviation safety; the harmonisation of programmes to improve air traffic management; the removal of barriers to future aviation efficiency; and the achievements of environmental gains at reasonable cost. By aligning with the ASBU concept, we are able to promote various operational efficiencies, including fuel efficient routing, optimal traffic flow management, performance-based navigation (PBN) and attention to fuel optimal speed control.

South Africa's aviation infrastructure is considered to be among the best globally. It is, therefore, imperative that we continue to invest wisely in this area to support South Africa's overall transport infrastructure. The 2015/16 financial year marked the start of a new Permission cycle, with a total of R242 million budgeted for new projects during the year. Year-to-date capital expenditure for the year amounted to R230 million, with an additional R491 million committed.

During the year, we embarked on necessary air traffic services infrastructure upgrades. Whilst these upgrades are critical to ensure we always keep pace with fast-evolving international standards, there were incidents of flight delays and system disruptions.

We performed well on departure delays during the year, registering an average delay per delayed flight of 13 seconds against a target of 120 seconds, thereby demonstrating our personnel's continued commitment to delivering the highest standards of air traffic control to the ATM community.

## Intellectual capital

ATNS's capability as a leading, sector-specific training institution is a key enabler of the Company's industry leadership and its future earning potential. Our Aviation Training Academy (ATA) is a world-renowned academy, and has been awarded IATA's Worldwide Top Regional Training Partner for five years in a row – an ongoing achievement we are committed to upholding. We were also designated as an IATA Premier Circle member. The Academy is ISO 9001:2008 compliant and accredited by the South African Qualifications Authority.

During the year, the ATA was awarded the rare status of a Regional Training Centre of Excellence (RTCE) by the International Civil Aviation Organisation (ICAO) in New Delhi, India. We were selected on the basis of our successful demonstration of compliance by satisfying standard ICAO requirements for well-maintained, state-of-the-art facilities.

Additionally, our research and innovation around operational concepts and safety performance is vital

for the improvement of safety within ATNS's operational environment. In particular, new innovations around satellite technology means aircraft can now follow routes very accurately and we are looking to maximise the benefits this can deliver at all stages of flight. Accordingly, we signed a data services agreement with Aireon LLC, developer of the world's first space-based global air traffic surveillance system, for a satellite-based Automatic Dependent Surveillance-Broadcast (ADS-B) service. The service will afford ATNS 100% air traffic surveillance of the Johannesburg Flight Information Region (FIR) and the Cape Town FIR, which cover approximately 10% of the world's airspace. The service is scheduled to be operational in 2018 and provides exponential opportunities to offer near-immediate cross-border surveillance services to other countries on the continent from local air traffic control ground stations without the need for extensive on-the-ground infrastructure in those countries.

## Human capital

ATNS is regarded globally as a mainstay of safety in airspace navigation, as well as a centre of excellence and an institute of reference. We can only maintain this standing if we continue to employ and foster capable and knowledgeable people who are aligned with the Company's culture of safety and sustainability and professional excellence. Accordingly, we continue to promote an optimal flow of pertinent skills throughout the Company, with a strong focus on the employment of women, people of colour and people with disabilities. However, a prevailing challenge for us going forward is the growing requirement for air traffic controller (ATC) skills globally. Approximately 60% of our staff costs pertain to air traffic control related services. ATNS competes with its international peers for air traffic controllers, resulting in high salaries offered to retain these skills. During the year, we continued to manage the training pipeline for ATS and technical staff at our aviation training academy; however, we fell short of our ATCO 3 stream training targets, with principal technical staff being enticed to opportunities abroad.

ATNS's long-term planning has identified future challenges around the skills that we will need to evolve within a globally-competitive, technologically-driven aviation environment. In this future context, many of the sector's present skills will either be replaced by technological functions, thereby rendering them redundant, or have to be adapted to match as yet unknown competency requirements. We are, therefore, aware of the need to balance a human-capital intensive business with the increased emphasis on technology in the ATM sector going forward. This awareness forms an integral part of our long-term infrastructure and human resource planning. Accordingly, we have initiated an organisational realignment process, spanning the next 14 years to 2030, to help us transition into an environment where we can counterpoise our exploration of advanced technologies to create greater operational efficiencies, with our directive, as a State-Owned Company, to address the challenges of structural unemployment and poverty in South Africa. The 14-year timeline for our planning coincides with the South African Government's National Development Plan timeframe, which enables us to align our efforts with Government to balance the development needs of our country with the growing infrastructure and efficiency requirements of our industry globally. During the year, we realigned several processes and also positions within the Company to facilitate a more agile structure to respond to challenges and opportunities in a fast-paced industry.

Additionally, we view organisational transformation as an integral component of our business's growth strategy. We are pleased to report that we exceeded our employment equity targets for African, Indian and coloured (AIC) employees at 73,15% (target: 72%); although we fell slightly short of target in terms of our female representation within ATNS, with women representing 44,55% of employees against a target of 46%. Our employment of people with disabilities also fell short of target at 2,79% (target: 3,5%).

Our commitment to organisational transformation is further evidenced through our implementation of development programmes for employees to increase the representation of AIC employees – particularly women - to align with the demographics of the country. During the year, ATNS spent R322,524 on 22 AIC learning and development opportunities for staff

with disabilities, of which 17 were women. Further, we are in the process of partnering with iLearn to create intern opportunities for people with disabilities.

## Social and relationship capital

We acknowledge the significant store of value represented by our relationships with our stakeholders to support the long-term economic and social sustainability of the business. These relationships are exemplified by the strength of our supply chain relationships, community partnerships, government and regulatory relations and our relationships with our customers, sector partners and the general public. Our social and relationship capital is also represented by the trust our customers and the ATM community demonstrate in our ability to ensure safe skies.

In this context, safety remains the first and overriding priority in air traffic management to ensure safety service provision to our customers and safe operations for our employees, partners, suppliers and the general public. As such, ensuring safety in our operations remains paramount and is not negotiable. In August of 2015, we learnt with shock and dismay of a fatal flight accident involving an aircraft carrying medical personnel, a patient, and his relative from Namibia in the Tygerberg nature reserve in Cape Town. At the time of publishing this report the incident was still under investigation by the South African Department of Transport's Aircraft Accident Investigations Unit, in consultation with the South African Civil Aviation Authority (SACAA). ATNS continues to cooperate to the fullest extent. I wish to extend our deepest condolences to the families and friends of the five people who perished on the flight. The loss of a life within our airspace is one too many and we acknowledge the critical importance of ensuring that our air traffic services infrastructure adheres to global leading standards at all times, without exception.

Overall, we recorded a total of 30 safety events for the year against a total number of movements of 1,098,137. Root causes varied from human-related errors to external factors such as weather phenomena, airspace design and complex traffic scenarios. ATNS ended the financial year by maintaining a risk safety index for the year below the Company's target of 48.

To address human performance errors, we continued to embed our "Visible Safety" safety campaign to elevate the role of operational personnel in safety management. The campaign promotes a more 'hands-on' approach from line management. Safety action plans were also implemented and refined to respond to the real-time demands of the operational environment and also to improve procedures, processes and systems – particularly those aimed at addressing human error and improving staff morale.

## Natural capital

We are committed to ensuring environmental sustainability in our business in line with our Shareholder's mandate. Accordingly, we continue to integrate sustainability principles within the Company's activities, products and services, which enables us to make strategic decisions that consider environmental impacts across the business's entire life cycle, from our infrastructure and service planning through to the ultimate de-commission stage. As ATNS, we are well positioned to play a leadership role in promoting accountable and environmentally sustainable business practices on the continent. Our reporting on natural capital relates to both the Company's own environmental impacts, as well as the implications of environmental sustainability and climate change for our customers and the wider aviation industry.

With the demand for air travel and air freight shipments growing internationally, global carbon emissions are expected to increase significantly in the near future. Already, emissions from aviation account for approximately 3% of overall carbon emissions. Similarly, the growth in global population from approximately 7 billion today to 9-10 billion in 2050 will be accompanied by a near six-fold increase in global economic output over the next 40 years, with an increase in global GDP from USD 55 trillion today

to USD 300 trillion by 2050. This virtually doubles the increase that transpired between 1970 and 2010.

As air traffic movements increase, adaptable optimisation of the airspace is required to ensure that safety and an operationally efficient environment are achieved, particularly from an environmental perspective. This is particularly challenging for airlines that burn fuel to propel their aircraft. ICAO has made commitments to curb emissions in response to the United Nations Framework Convention on Climate Change (UNFCCC). As an ICAO member state, South Africa, and ATNS in particular, has an implicit and seminal role to play on the African continent to promote maximum compatibility between the safe and orderly development of civil aviation on the one hand and the quality of the environment on the other. We continue to support the activities of ICAO's technical Committee on Aviation Environmental Protection (CAEP) in establishing global standards and procedural recommendations for minimising the impacts of aviation on the environment – particularly the improvement of airspace air quality and the reduction of airspace noise. Through advances such as continuous descent operations (CDOs), aircraft can descend from high cruise altitudes to the final airport approach at minimum thrust settings. In so doing, they decrease noise in fly-over locations and use up to 30% less fuel compared to standard 'stepped' approaches. Additionally, the use of performance-based navigation (PBN) helps to provide aircraft with lateral path routes to avoid noise-sensitive areas such as hospitals, schools and places of worship.

As part of our on-going commitment to reducing GHG emissions, ATNS is one of the founding members of the Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE), a partnership with airlines, ANSPs and airport partners to assess ways of reducing aviation's impact on the environment. The INSPIRE partnership is intended to be a collaborative network of partners and peer organisations across the Arabian Sea and Indian Ocean region dedicated to improving the efficiency and sustainability of aviation.

Further, training and education on environmental impacts form an integral and strategic part of the Company's overall drive to create long-term environmental sustainability. Our training programmes relate not only to our sector's need to curb carbon emissions, but also extend to the responsible management of our natural resources such as airspace quality and protected habitats, as well as our management of energy, in the form of electricity and non-renewable resources, such as fuel. During the year, we once again calculated ATNS's Carbon Footprint Inventory and compiled an environmental assessment report. Our total carbon inventory for the 2015/16 financial year is 25510.96 tonnes of $CO_2e$.

## To conclude

Our integrated reporting remains a dynamic and evolving process. Thank you to the many contributors who helped to ensure our reporting remains current, objective and reliable. Going forward, it is increasingly important to ensure that our reporting is also consistently comparable from year to year, so that we can get a meaningful view of our progress over time, and therein continue to embed integrated thinking across the business. It is our intention to use the IIRC's '6 Cs' as the blueprint to do so.

On behalf of the Board of Directors and its committees, I wish to thank all our competent and dedicated employees for their commitment and professionalism during the year. Thank you for uniting in delivering safe skies in the most efficient, customer-focused and environmentally sustainable manner possible. I look forward to us achieving even higher standards of safety excellence in year ahead.

**Chief Executive**
Mr Thabani Mthiyane

# ABRIDGED GOVERNANCE AND ASSURANCE

ATNS continues to review the Company's corporate governance practices, to ensure that leading practice standards are maintained as recommended by the King Code of Governance for South Africa (2009) (King III).

As a State-Owned Company, ATNS is governed in terms of the Companies Act and the requirements of the Public Finance Management Act (PFMA) of South Africa. As such, Section 52 of the PFMA requires that the Shareholder and the Board of Directors conclude a Shareholder's Compact, which includes Key Performance Areas (KPAs) and associated Key Performance Indicators (KPIs).

The Shareholder monitors the Board's performance with respect to these KPAs through the submission of quarterly reports. Further, the Board of Directors is required to submit a Corporate Plan to the Shareholder.

During the year, the Board complied with these statutory requirements.

## Application of King III

The Board of Directors complies in all material respects with the principles contained in the King III Code, as well as with the additional requirements for good corporate governance stipulated in the Public Finance Management Act.

The Company's Internal Audit function has performed a thorough review of the implications of King III and, where appropriate, the corporate governance structure has been amended to comply with the Code.

For the 2015/16 financial year, the Company continued to comply with all aspects of the Code, except in the following cases:

- Non-executive directors' fees are determined by National Treasury.
- Directors' fees are determined for the Company given that attendance fees as well as a performance appraisal system are in place to address non-attendance at meetings.
- IT governance was rated by ATNS Internal Audit as below '3' in terms of the King evaluation.

## Ethical leadership and corporate citizenship

The Board of Directors and senior management are committed to the highest standards of corporate governance and strives to achieve the highest moral and ethical operational and behavioural standards, as well as sound and transparent business practices.

The Company embraces the principles of good corporate governance to ensure that an ethical foundation exists which promotes the following:

- **Responsibility** – by assuming responsibility for the actions of the Company and being willing to take corrective actions to keep the Company on a strategic path that is ethical and sustainable.
- **Accountability** – by being able to justify its actions and decisions to its Shareholder, the Department of Transport, and other stakeholders.
- **Fairness** – by giving fair consideration to the legitimate interests and expectations of all stakeholders.
- **Transparency** – by disclosing information in a manner that enables stakeholders to make an informed analysis of the Company's performance and sustainability.

## Board of Directors

### Period of office of board members

The appointment of ATNS directors is governed by the Memorandum of incorporation. All non-executive directors are appointed for specific terms and reappointment is not automatic. The Shareholder at the AGM can retire and reappoint available directors despite their contract terms being for a period of three years.

### Board and committee evaluations

The performance of the Board of Directors is evaluated on an annual basis and includes:

- An assessment of the performance and effectiveness of the Board as a whole and that of individual directors, including the CEO of the Company and the Company's CFO;

- A peer evaluation by all directors ranking their fellow directors on contribution to the Board; and
- An evaluation of each committee by members of the committee, focusing on effectiveness of the Chairperson and contributions of individual committee members.

The evaluation process takes place by way of evaluation questionnaires based on the observations and experiences of board members throughout the year. The results are discussed by the Board and one-on-one meetings are held with directors to discuss the results of the evaluations and to propose developmental actions, should they be required.

## Roles and responsibilities

### Chairman of the Board and Chief Executive Officer

The roles of the Chairman of the Board and the Chief Executive Officer are separate with clearly-defined individual responsibilities. The Chairman is responsible for leading the Board of Directors and ensuring its effectiveness. The Chief Executive Officer is responsible for the execution of ATNS' strategy and the Company's day-to-day operations. He is supported by the Executive Committee, which he chairs.

### Independent non-executive directors

#### Directors' skills

The independent non-executive directors possess varied skills and experience from diverse industries. They are principally free from any business relationships that could hamper their objectivity or judgement in terms of the Company's business and activities.

#### Access to information

All the independent non-executive directors have unrestricted access to the Company's information, documents, records and property in the interest of fulfilling their responsibilities as non-executive directors. The independent non-executive directors contribute a multiplicity of skills, business acumen, independent judgement and experience on many varied issues, including strategy, planning, risk management, corporate governance, operational performance and leadership. Directors' independence is determined according to the definition in the King III Code, which includes the number of years a director has served on the Board of Directors.

### Company secretary

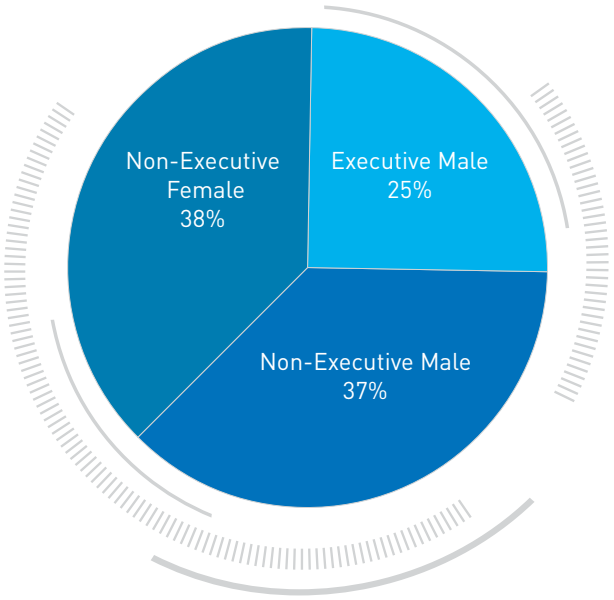
During the year, the Board of Directors considered the competence, qualifications and performance of the Company Secretary. The Board of Directors is satisfied that the Company Secretary is competent and has the requisite knowledge to serve in this capacity. The Board of Directors further confirms that the Company Secretary maintains an arm's-length relationship with the Board when carrying out his duties and is not a director within ATNS.

## Appointment of directors

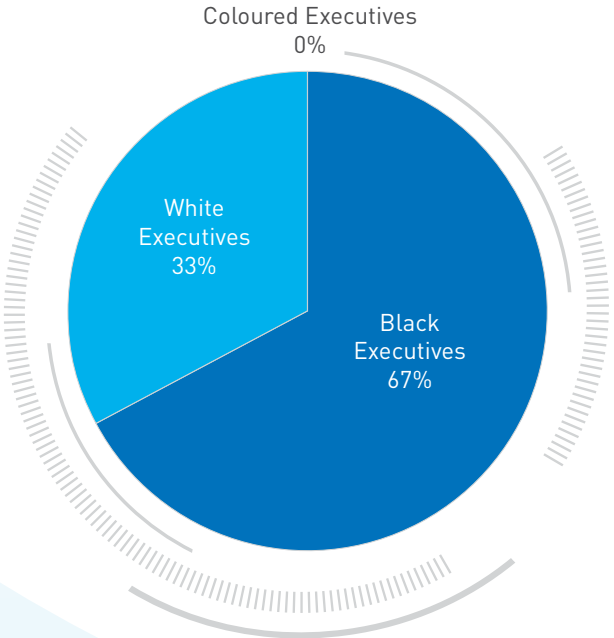
The appointment of directors to the Board is a formal and transparent process and a matter for the Shareholder and Cabinet as a whole. The appointment of directors is facilitated by the Department of Transport Oversight Unit with the support of the ATNS Human Resources Committee, which also serves as the Nominations Committee. The ATNS HR Committee is constituted of non-executive directors, the majority of whom are independent. The committee is chaired by a non-executive chief director.

All appointments are subject to approval by the Government Cabinet, and fit and proper tests in terms of the Public Finance Management Act, the Companies Act, and any other applicable legislation. All directors' appointments are subject to shareholder approval at the annual general meeting immediately following the date of their appointment.

GRAPH 2: BOARD REPRESENTATION




GRAPH 3: EXECUTIVE COMMITTEE REPRESENTATION




## Induction and training

The induction, training and development of directors are channelled through a process consisting of:

- Providing directors with information relating to policies, processes, charters, minutes of meetings, results, financials and other material relevant to their taking up office as a director.
- Affording directors an open invitation to visit the operational divisions of ATNS to meet with management and attend management meetings.
- Encouraging all directors to attend external courses presented by an institution of their choice, at the business's cost.

The current Board of Directors was appointed on 01 September 2015. A Board induction process was held on 15 and 16 October 2015 and was facilitated internally by the Company Secretary.

All directors attended the Board induction.

The Board of Directors identified the need for additional financial accounting and management skills to fully equip the Board to perform its functions effectively. Accordingly, the Shareholder has advertised for two additional directors with relevant financial accounting qualifications and competencies.

## Access to information

The Board of Directors has unrestricted access to all company information, records and documents. Detailed information (agenda and supporting documents) must be circulated at least one week prior to each Board or Committee meeting.

## Independent advice

In allowing the Board to discharge its corporate responsibilities by exercising the care that an ordinary prudent person would exercise under similar circumstances, the Board and the board committees may engage the services of external experts at ATNS's expense.

## Succession planning

The Human Resources Committee and the Board of Directors review succession planning as a regular item on their respective agendas. The Human Resources Committee, in line with its terms of reference, and from time to time, reviews the general composition of the Board in consultation with the Board Chairperson, and makes and makes appropriate recommendations on the appointment of new executive or non-executive directors.

## Conflict of interest

All directors are required to disclose any conflict or potential conflict of interest that they may have with regard to any activity within the Company, or any matter discussed at Board and committee meetings.

The fiduciary duties of ATNS's directors are codified in the Companies Act. The latter prohibits the use of position, privileges or confidential information for personal gain or improper personal benefit. In instances where an independent non-executive director or a prescribed officer has any direct or indirect personal or private business interest in a matter, he or she must be recused from the proceedings when such a matter is considered, unless the Board of Directors or Executive Committee decides that the member's interest in the matter is either immaterial or irrelevant.

To reduce possible fraud or corruption by ATNS staff and trading partners, all gifts offered by suppliers to ATNS officials must be formally disclosed in the gift register as per the Conflict of Interest Directive. Gifts of a potentially significant monetary value should not be accepted, and any such offer must be disclosed to the employee's line manager, from whom guidance should be sought if in any doubt as to whether or not the offer of a gift is regarded as being of significant value. A gift declaration register is maintained and updated on an on-going basis.

## Materiality

Levels of materiality regarding capital expenditure and changes in the operation of the business have been determined, with all matters falling outside these parameters requiring formal Board authorisation. These matters are monitored and evaluated on a regular basis through the Procurement Committee. ATNS has a Materiality and Significance Framework to monitor and manage the risk of material losses through criminal conduct, irregular expenditure, and fruitless and wasteful expenditure.

It is the responsibility of the Minister of Transport (with whom rests the primary responsibility for appropriate ATNS oversight and accountability to Parliament) to ensure that these risks are identified, reduced and managed. The ATNS Significance Framework is designed to assist the Minister in discharging this responsibility.

TABLE 6: ALIGNMENT WITH KING III PRINCIPLES

| King III principle | Apply | Partially apply | Under review/ not applied |
|---|---|---|---|
| The Board is the focal point for and custodian of corporate governance. | ✓ | | |
| Strategy, risk, performance and sustainability are inseparable. | ✓ | | |
| Directors act in the best interests of the Company. | ✓ | | |
| The Chairperson of the Board is an independent non-executive director. | ✓ | | |
| Framework for the delegation of authority has been established. | ✓ | | |
| The Board comprises a balance of power, with a majority of nonexecutive directors who are independent. | ✓ | | |
| Directors are appointed through a formal process. | ✓ | | |
| Formal induction and ongoing training of directors is conducted. | ✓ | | |
| The Board is assisted by a competent, suitably qualified and experienced company secretary. | ✓ | | |
| Regular performance evaluations of the Board, its committees and the individual directors are performed. | ✓ | | |
| Appointment of well-structured committees and oversight of key functions. | ✓ | | |
| An agreed governance framework between ATNS and its subsidiary boards is in place. | N/A | | |
| Directors and executives are fairly and responsibly remunerated. | ✓ | | |
| Remuneration of directors and senior executives is disclosed. | ✓ | | |
| The Company's remuneration policy is approved by its Shareholder. | ✓ | | |

## Audit and Risk Committee

The Board of Directors – which carries ultimate responsibility for risk management within the Organisation, is continuously kept appraised of risks facing the business. The Audit and Risk Committee supports the Board in this task by ensuring an effective risk-based internal audit function and enterprise-wide risk governance. The committee provides the Board of Directors with regular risk reporting as well as feedback on the status of the Company's control environment.

The Audit and Risk Committee ensures that the combined assurance received is appropriate to address the significant risks facing ATNS. The combined assurance model consists of management, the Audit and Risk committee, internal assurance providers, (i.e. finance, internal audit, risk and various external assurance providers). The following principles of King III have been included within the scope of the Audit and Risk Committee's roles and responsibilities.

TABLE 7: ALIGNMENT WITH KING III PRINCIPLES – GOVERNANCE OF RISK

| King III principle | Apply | Partially apply | Under review/ not applied |
|---|---|---|---|
| The Board is responsible for the governance of risk and setting levels of risk tolerance | ✓ | | |
| The Audit and Risk Committee assists the Board in carrying out its risk responsibilities | ✓ | | |
| The Board delegates the process of risk management to management | ✓ | | |
| The Board ensures that risk assessment and monitoring is performed on a continual basis | ✓ | | |
| Frameworks and methodologies are implemented to increase the probability of anticipating unpredictable risks | ✓ | | |
| Management implements appropriate risk responses | ✓ | | |
| The Board receives assurance on the effectiveness of the risk management process | ✓ | | |
| Sufficient risk disclosure to stakeholders | ✓ | | |

## The governance of information technology (IT)

The IT Steering Committee, chaired by the ATNS CIO, assists the Board in discharging its duties relating to IT performance management, ensuring that IT governance supports the effective and efficient management of IT resources, and facilitates the achievement of the Company's strategic objectives. The main objective of the IT Steering Committee is to ensure that IT strategic objectives are aligned with changes in ATNS' strategic needs, and judiciously manages IT risks and identifies opportunities to be acted on.

The ATNS Risk and Capital Management Committee measures the Company's overall exposure to IT risks and ensures that proper processes are in place to manage these risks. The responsibility for the implementation of IT governance is assigned to the chief information officer.

TABLE 8: ALIGNMENT WITH KING III PRINCIPLES – IT GOVERNANCE

| King III principle | Apply | Partially apply | Under review/ not applied |
|---|---|---|---|
| The Board is responsible for IT governance | ✓ | | |
| IT is aligned with the performance and sustainability objectives of the Company | | ✓ | |
| Management is responsible for the implementation of an IT governance framework | ✓ | | |
| The Board monitors and evaluates significant IT investments and expenditure | ✓ | | |
| IT is an integral part of the Company's risk management | | ✓ | |
| IT assets are managed effectively | ✓ | | |
| The Audit and Risk Committee assist the Board in carrying out its IT responsibilities | ✓ | | |

## Compliance with laws, codes, rules and standards

The Board recognises its accountability to all ATNS' stakeholders under the regulatory requirements applicable to its business and remains committed to high standards of integrity and fair dealing in its conduct. Given the importance of complying with the ever-increasing domain of regulatory requirements, and the increased national and international emphasis placed on regulatory supervision, the Board of Directors, Executive Committee and employees continue to monitor, align and adhere to compliance requirements. Further, ATNS remains vigilant in monitoring material risks and developing an appropriate control environment to ensure company-wide compliance.

During the year, there were no material – or immaterial, but often repeated – regulatory penalties, sanctions, fines for contravening or non-compliance with statutory obligations imposed on the Company, its officers or its directors.

TABLE 9: ALIGNMENT WITH KING III PRINCIPLES – COMPLIANCE WITH LAWS, CODES, RULES AND STANDARDS

| King III principle | Apply | Partially apply | Under review/ not applied |
|---|---|---|---|
| The Board ensures that the Company complies with relevant laws | ✓ | | |
| The Board and directors have a working understanding of the relevance and implications of non- compliance | ✓ | | |
| Compliance risk forms an integral part of the Company's risk management process | ✓ | | |
| The Board has delegated to management the implementation of an effective compliance framework and processes | ✓ | | |

The responsibility for effective implementation of compliance throughout ATNS has been delegated to the ATNS Compliance Officer. The compliance function enables the business to adhere to applicable regulatory requirements by ensuring that actions, processes and procedures are risk-appropriate and that the business can achieve its business goals without fear of penalties and loss of reputation.

Incidents of non-compliance are reported to the responsible executives or heads of business units, divisions, departments or subsidiaries for prompt resolution. The office of the ATNS Compliance Officer is also charged with the responsibility of assisting, guiding and advising the various business units, divisions, departments and subsidiaries within ATNS on how to discharge their duties in managing their compliance responsibilities and obligations.

The ATNS Audit and Risk Committee oversees compliance matters within ATNS. The Committee requires that:

- the compliance officer reports non-compliance with laws and regulations or supervisory requirements to the Audit and Risk Committee; and
- the compliance officer submits a report on the level of compliance with laws and regulations or supervisory requirements at every meeting of the Audit and Risk Committee.

The ATNS compliance officer has a direct reporting line to the ATNS Audit and Risk Committee; as well as unrestricted access to the Chairperson of the committee.

## Internal audit

ATNS Internal Audit plays a unique and vital role in the governance process. It is an essential tool to provide reasonable assurance on the adequacy and effectiveness of the governance, risk management and control environment.

ATNS's Internal Audit function is responsible for utilising a systematic and disciplined approach to provide reasonable assurance in realising the following objectives:

- The accomplishment of established objectives and goals for operations and programmes.
- The economical and efficient use of resources.
- The reliability and integrity of financial and non-financial information.
- Compliance with relevant policies, procedures, laws and regulations.
- Safeguarding of assets.

To maintain its independence and achieve its objectives, the ATNS Internal Audit function reports functionally to the Audit and Risk committee of the Board, has unrestricted access to the Chairperson of the committee and reports administratively to the CEO.

TABLE 10: ALIGNMENT WITH KING III PRINCIPLES – INTERNAL AUDIT

| King III principle | Apply | Partially apply | Under review/ not applied |
|---|---|---|---|
| Effective risk-based internal audit | ✓ | | |
| Written assessment of the effectiveness of the company's system of internal controls and risk management | ✓ | | |
| Internal audit is strategically positioned to achieve its objectives | ✓ | | |

## Governing stakeholder relationships

ATNS recognises that it does not operate in a vacuum and is therefore cognisant of the environment within which it operates and its direct and indirect impact on its stakeholders, thereby informing how it conducts its business. ATNS strives to maintain proactive stakeholder relationships and to manage stakeholder expectations as well as potential reputational risks by aligning the Company's objectives with stakeholder priorities.

The Board further undertakes to use its best efforts to balance the diverse interests of ATNS' stakeholders and to engage stakeholder groups on material issues that may impact the Company's long-term economic, social and environmental sustainability.

TABLE 11: ALIGNMENT WITH KING III PRINCIPLES – STAKEHOLDER RELATIONSHIPS

| King III principle | Apply | Partially apply | Under review/ not applied |
|---|---|---|---|
| Appreciation that stakeholders' perceptions affect the Company's reputation | ✓ | | |
| Management proactively deals with stakeholder relationships | ✓ | | |
| There is an appropriate balance between its various stakeholder groupings | ✓ | | |
| Equitable treatment of stakeholders | ✓ | | |
| Transparent and effective communication to stakeholders | ✓ | | |
| Disputes are resolved effectively and timeously | ✓ | | |

## Integrated reporting and disclosure

Through its integrated reporting, ATNS aspires to provide a comprehensive and integrated representation of the Company's performance in terms of both its finances and its sustainability. ATNS's Integrated Report is published annually and presents an overview of the Company's activities, practices and financial performance for the year; and presents a balanced analysis of our sustainability performance strategy in relation to issues that are relevant and material to ATNS and its stakeholders.

The Integrated Report is reviewed by the Audit and Risk Committee and the Board to satisfy themselves of the materiality, accuracy and balance of disclosures. In addition, various aspects of the Integrated Report are independently assured by a number of assurance providers.

TABLE 12: ALIGNMENT WITH KING III PRINCIPLES – INTEGRATED REPORTING

| King III principle | Apply | Partially apply | Under review/ not applied |
|---|---|---|---|
| Ensures the integrity of the Company's integrated report | ✓ | | |
| Sustainability reporting and disclosure is integrated with the Company's financial reporting | ✓ | | |
| Sustainability reporting and disclosure is independently assured | | ✓ | |

## ATNS Board

| Director | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Ms Phindile Riba**<br>• Chairperson of the Board<br><br>**Date of birth:**<br>August 1965<br>  | Ms. Phindile Riba, was previously the Board Chairman of the South African Civil Aviation Authority (SACAA) and presided during a period in which the SACAA attained two consecutive clean audit awards; and at a time when the first woman was appointed as CEO of the SACAA. She has experience in the practices of public-entity boards and previously served as a non-executive director at Armscor Limited. Ms. Riba has more than 25 years' business experience, having worked for numerous private and public entities at senior and executive levels. | **Qualifications:**<br>• BA Social Science, Public Administration and Political Sciences (University of Swaziland).<br>• MBA Strategic Human Resource Management and Small business management (Cardiff Business School, UK, University of Wales).<br>• Executive Development Programme (Wits University). |
| **Date appointed:**<br>1 September 2015 | **Current directorships on other Boards**<br>• Golden Dividend 456 Pty Ltd<br>• City Square Trading 947 Pty Ltd<br>• Delfizest Pty Ltd<br>• RIMETO Holdings Pty Ltd<br>• Ladosource Pty Ltd | **Areas of core expertise:**<br>• Corporate governance.<br>• Business transformation.<br>• Change management.<br>• Corporate HR strategy.<br>• Leadership and management development. |
| **Ms Nwabisa Mtshali**<br>• Chairperson of Human Resource Committee<br>• Member of Social and Ethics Committee<br><br>**Date of birth:**<br>April 1973<br>  | Ms. Mtshali started her career in the Finance Sector working for Investec Bank as a Recruitment Administrator (1996-07/1998) after completing her BA in Communication with the University of Fort Hare (1993-1995). During 1998 and 1999 she served for a short period as a consultant in the assessment of potential partners at Deloitte and Touché. She commenced her aviation career in 2001 when she joined SAA Technical on a permanent basis as a Recruitment Manager responsible for assessing and recruiting technicians and engineers. She has since facilitated various training initiatives and was appointed as an HR Manager at SAA. She was further appointed to serve as a member of the Board of the Aviation Training and Development Foundation. It was during this time that she received a scholarship to study an MBA in Aerospace Management (2003-2004). On her return she worked for Denel Aviation Head Office as an Assistant to the GM responsible for the management of projects. She since opted to go into private practice and continues to manage her own business. | **Qualifications:**<br>• MBA (Aerospace Management) – ESCT France.<br>• New Management programme (Wits business school).<br>• Diploma HR Management (Damelin).<br>• BA in Communications (University of Fort Hare). |
| **Date appointed:**<br>1 September 2015 | **Current directorships on other Boards**<br>• Ms. Mtshali does not currently serve on other company Boards. | **Areas of core expertise:**<br>• Recruitment and HR management.<br>• Job Evaluation and training.<br>• Skills Development Facilitation.<br>• Payroll administration.<br>• Aerospace management. |

| Director | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Mr Daniel Gray Mwanza**<br>• Member of Procurement Committee<br>• Member of Human Resource Committee<br><br>**Date of birth:**<br>June 1965<br><br>  | Mr. Mwanza holds a Master of Science degree in Aircraft Mechanical Engineering. He specialised in Maintenance of Aircraft and Aero-engines. He has two Diploma certificates in Industrial Formation and Computer Aided Engineering (CAD, CAM and CNC). He has also attended the IoDSA Director's course. Mr. Mwanza is currently setting up his own firm to manufacture components using Computer Aided Engineering. | **Qualifications:**<br>• Diploma Computer Aided Engineering (East Warwickshire College, UK).<br>• MSc Degree Mechanical Engineering (Maintenance of Aircraft & Aero-Engines) Kiev Institute of Civil Aviation Engineers. |
| **Date appointed:**<br>1 September 2015 | **Current directorships on other Boards**<br>• Mr. Mwanza does not currently serve on other company Boards. | **Areas of core expertise:**<br>• Aircraft mechanical engineering.<br>• CAD, CAM and CNC.<br>• Aircraft Accident and Incident Investigation (including human factors).<br>• Management of Air Transportation in Southern Africa.<br>• Knowledge of Boeing structures.<br>• Technology management. |
| **Dr Bridget Ssamula**<br>• Chairperson of Audit and Risk Committee<br>• Member of Human Resource Committee<br>• Member of Procurement Committee<br><br>**Date of birth:**<br>February 1979<br><br>  | Dr Ssamula has over fifteen years' tactical and strategic experience in the transportation industry, having worked on multiple strategic projects. She has served as an advisor in the transport industry in Southern Africa in various capacities, including her current position as a member of the panel of experts for the Gauteng Transport Commission. She was appointed in 2014 as the chairperson of the Consulting Engineers South Africa (CESA) Transnet Liaison Committee and serves as a non-executive director of Air Traffic Navigation Services (ATNS). Previously, she served as a non-executive director for South African Express Airways (2007-2015), as well as a Steering Committee Member for the Gauteng Integrated Transport Master Plan (2011-203), a Transport Advisor for the City of Johannesburg in the development of the Growth Development Strategy (GDS) 2040 (2011-2012), and on the Gauteng E-Toll Advisory Panel, (2014). She has received numerous industry awards and recognitions and is the author of a variety of peer reviewed conferences, conference papers, technical papers and mainstream articles. | **Qualifications:**<br>• MBA (Aviation Management) – Embry Riddle Aeronautical University, USA.<br>• PhD (Transportation Engineering) – University of Pretoria.<br>• MEng (Transportation Engineering) – University of Pretoria.<br>• BSc (Civil Engineering) – Makerere University, Uganda. |
| **Date appointed:**<br>1 September 2015 | **Current directorships on other Boards**<br>• Consulting Engineers of South Africa | **Areas of core expertise:**<br>• Transport sector experience.<br>• Aviation operations management.<br>• Strategy development.<br>• Strategic management and advisory services. |

| Director | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Mr President Qiniso Dhlamini**<br>• Member of Social and Ethics Committee<br>• Member of Human Resource Committee effective<br><br>**Date of birth:**<br>January 1958<br><br>  | Mr. Dhlamini is an Airline Transport Pilot by Profession. He obtained his FAA Commercial Pilots Licence in Malden Missouri USA and his FAA Airline Transport Pilots Licence in Bolivar Aviation in Tennessee USA. Mr. Dhlamini further obtained a Line instructor/check pilot qualification from USAIRWAYS, and IATA Flight Operations Management certificate. His aviation career spans over 36 years and he has accumulated in excess of 14000 flying hours, having flown as a captain for both Royal Swazi National Airways Corporation and Swaziland Airlink (Pty) Ltd. He served as Chief Pilot and Flight Operations Manager for both airlines and was temporarily appointed General Manager for Swaziland Airlink (2000 to 2002). When he stopped flying in 2007 he worked as a Part 121 Flight Operations Inspector and later served as Senior Manager Flight Operations at the South African Civil Aviation Authority. He now heads Eskom Aviation, where he initially started as a Chief Pilot Fixed Wing in 2008. He has served as a Non-Executive Director for the Commercial Aviation Association of Southern Africa (CAASA) and is currently a Non-Executive Director for the Air Traffic Navigation Services of South Africa (ATNS) as well as the Swaziland Civil Aviation Authority (SWACAA). | **Qualifications:**<br>• Master of Business Administration (Management College of SA).<br>• Diploma in Aviation Safety Management (IATA Training and Development Institute).<br>• Diploma in Adult Education (University of Swaziland).<br>• Post Graduate Certificate in Management Studies (Management College of SA).<br>• Certificates in Human Factors in Aviation, Accident Prevention and Accident Investigation (SWEDAVIA). |
| **Date appointed:**<br>1 September 2015 | **Current directorships on other Boards**<br>• Swaziland Civil Aviation Authority.<br>• Chairman: RASA (Recreation Aviation Admin SA).<br>• Recreation Aviation Administration South Africa. | **Areas of core expertise:**<br>• Airline pilot.<br>• Aviation safety management.<br>• Aircraft Accident and Incident Investigation (including human factors). |
| **Mr Isaac Nkama**<br>• Member of Audit and Risk Committee<br>• Member of the Procurement Committee<br><br>**Date of birth:**<br>June 1965<br><br>  | Mr. Nkama is a Chartered Marketer (IMM) and has held various senior positions in the private sector. He specialises in business expansion on the African continent, and formed Facilitation Africa in 2009 – a trade gateway for South African companies wishing to develop business opportunities into the rest of Africa. Prior to that, he was Director of Business Development (Africa Regional Office) at Boeing. Mr. Nkama is a former Vice-Chairman of the Aerospace, Maritime and Defence Industries Association (AMD) of South Africa; and served as Vice-Chairman of Africa Aerospace and Defence (AAD) – Africa's largest Air Show. He is a former Non-Executive Director at Gateway Airports Authority Limited and Gensec Property Services. He was a Member of the Presidential Black Business Working Group from 2003 to 2009, as well as the Executive Committee of the Black Business Executives Circle from 2005 to 2012. He also serves as a member of the National Council of the SA Institute of International Affairs as well as an Assessor with the South African Tax Court. He sits on the University of Stellenbosch's African Futures Council – Africa's only continental body of Futurists. | **Qualifications:**<br>• Chartered Marketer (Institute of Marketing Management) – CM (SA).<br>• MBA (International Business) – Bond University, Australia.<br>• MSc (Leadership & Change Management) – Leeds Business School, UK<br>• Post Graduate Diploma in Future Studies (Scenario Planning/Futures Strategy) – University of Stellenbosch Business School.<br>• MPhil in Futures Studies (Scenario Planning/Futures Strategy) – University of Stellenbosch Business School (in progress). |
| **Date appointed:**<br>1 September 2015 | **Current directorships on other Boards**<br>• Facilitation Africa.<br>• South African Institute of International Affairs.<br>• African Futures Council. | **Areas of core expertise:**<br>• Strategic Marketing<br>• Corporate Governance<br>• Africa Business Expansion and Trade Development<br>• Aerospace and Defence Industries<br>• International Affairs<br>• Tax Regulations<br>• Professional Futurist/Scenario Planner |

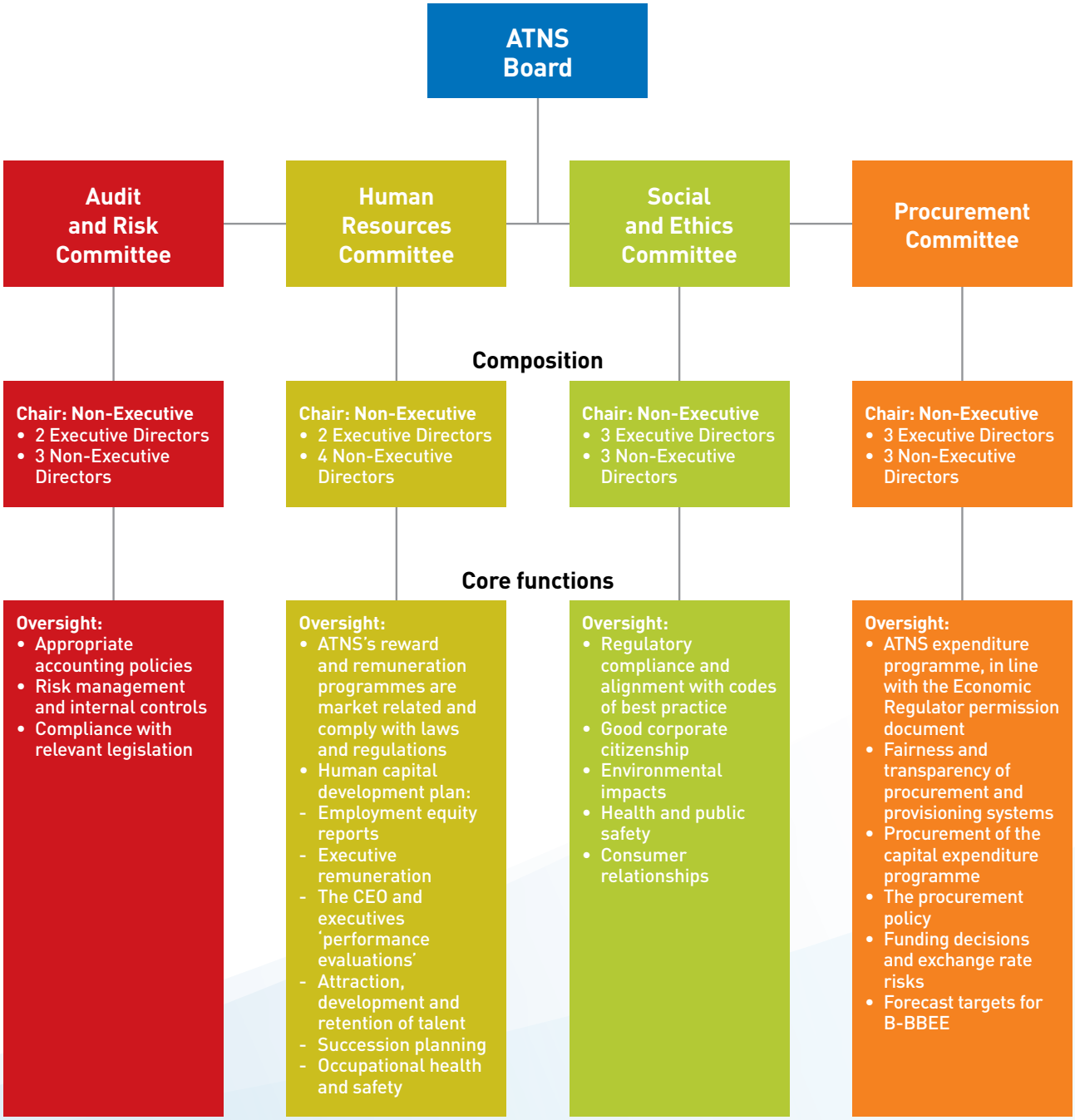
| Director | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Advocate Edwin M. Mphahlele**<br>• Chairperson of Procurement Committee<br>• Member of Audit & Risk Committee<br><br>**Date of birth:**<br>November 1970<br><br>  | Advocate Mphahlele is a practising legal practitioner, specialising in international transaction law, corporate and project finance, mergers and acquisitions, corporate work-out and turnarounds, transaction modelling, as well as deal structuring, negotiations and contractual arrangements for major commercial transactions. Advocate Mphahlele served at audit firm, Ernst and Young as Corporate Finance Advisor, and as a legal director at the Department of Public Enterprises. He was appointed as General Secretary of the Africa Heritage Society and also worked as Director of Business Development at Amitech (Amiatit subsidiary) and NTK Limpopo Limited. | **Qualifications:**<br>• B. Proc (University of Limpopo), LLB (Wits)<br>• Graduate Diploma in Finance Law (University of Melbourne, Australia) |
| **Date appointed:**<br>1 September 2015 | **Current directorships on other Boards**<br>• Bradbury Consulting Services & Adnivest (Pty) Ltd.<br>• Tshwane Housing Company (SOC).<br>• Litsamaiso (Pty) Ltd, operating company of Rea Vaya BRT (non-executive). | **Areas of core expertise:**<br>• International transaction law.<br>• Corporate and project finance.<br>• Mergers and acquisitions.<br>• Corporate workout and turnarounds.<br>• Transaction modelling.<br>• Deal structuring, negotiations and contractual arrangements for major commercial transactions. |
| **Ms Shaila Hari**<br>• Chairperson of Social and Ethics Committee<br>• Member of Audit and Risk Committee<br><br>**Date of birth:**<br>October 1971<br><br>  | Ms Hari served as an independent contractor at Gobodo Inc. CA (SA) and also at Deloitte & Touche. She further worked as Financial Officer at Nedcor Bank Limited; an Articled Clerk at Pricewater-houseCoopers; and as an accountant and financial administrator at Marx Verspreiders. Ms Hari holds various Directorship positions, including Audit Committee member at the SA Pharmacy Council; Deputy Chairperson of the Gauteng Gambling Board. She is a Non-Executive Director and Chairperson of the Social and Ethics Committee at Spanjaard Ltd.; Chairperson of the National School of Government; and Chairperson of the International Trade Administration Commission of SA (ITAC). She is currently the Chairperson of the ATNS Social and Ethics Committee. | **Qualifications**:<br>• BCompt and BCompt Honours (University of South Africa)<br>• Public Sector Governance SBL (University of South Africa). |
| **Date appointed:**<br>1 September 2015 | **Current directorships on other Boards**<br>• Gauteng Gambling Board.<br>• Spanjaard Ltd. (non-executive).<br>• National School of Government.<br>• International Trade Administration Commission of South Africa.<br>• State Security Agency (SSA). | **Areas of core expertise:**<br>• Technology and governance of technology.<br>• Financial management, accounting and financial administration.<br>• Corporate governance. |

## Board committees

The Board of Directors is supported by four Board committees:

- Audit and Risk Committee
- Human Resources Committee
- Procurement Committee.
- Social and Ethics Committee

FIGURE 8: ATNS BOARD COMMITTEE STRUCTURE



## ATNS Board Members

From left to right: Ms Nwabisa Mtshali, Mr Daniel Gray Mwanza, Mr President Qiniso Dhlamini, Dr Bridget Ssamula, Mr Isaac Nkama, Mr Thabani Mthiyane, Ms Phindile Riba, Advocate Edwin M. Mphahlele, Mr William Ndlovu, Mr Solomon Mngomezulu

Table 13 outlines the composition of the ATNS Board and the Board committees. The structure and core functions of ATNS's Board committees are outlined in Table 14 that follows.

## TABLE 13: COMPOSITION OF THE BOARD AND BOARD COMMITTEES

| Committee | Total | Exec & Non-Exec | % Male | | | | % Female | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | African | Coloured | Indian | White | African | Coloured | Indian | White |
| ATNS Executive Committee | 11 | Exec | 7 | 0 | 0 | 2 | 2 | 0 | 0 | 0 |
| ATNS Board | 10 | Exec | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Non-Exec | 4 | 0 | 0 | 0 | 3 | 0 | 1 | 0 |
| Audit and Risk Committee | 6 | Exec | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Non-Exec | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Human Resources Committee | 6 | Exec | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Non-Exec | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Social and Ethics Committee | 5 | Exec | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Non-exec | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Procurement Committee | 6 | Exec | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Non-Exec | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

## TABLE 14: BOARD COMMITTEE CORE FUNCTIONS AND STRUCTURE

| Board Committee | Core Function | No. of Executive Directors | No. of Non-Executive Directors | Chair | No. of times per annum to meet |
|---|---|---|---|---|---|
| **Audit and Risk Committee** | • Assist the Board in fulfilling its responsibilities for the presentation of the Company's financial position in its published financial statements.<br>• Ensure appropriate accounting policies, risk management, internal controls and compliance with relevant legislation. | 2 | 4 | Independent Non-Executive Director | 4 |

| Board Committee | Core Function | No. of Executive Directors | No. of Non-Executive Directors | Chair | No. of times per annum to meet |
|---|---|---|---|---|---|
| **Human Resource Committee** | • Ensure that ATNS's reward and remuneration programmes are market related and comply with the relevant laws and regulations.<br>• Considers the following submissions:<br>• Human capital development plan<br>• Employment equity reports<br>• Executive remuneration<br>• The CEO and executives 'performance evaluations'<br>• Report on attraction, development and retention of talent for the organisation, as well as succession planning<br>• Occupational health and safety audit report | 2 | 3 | Non-Executive Director | 4 |
| **Procurement Committee** | • Oversee the ATNS capital expenditure programme, in line with the Economic Regulator permission document.<br>• Ensure that appropriate procurement and provisioning systems are fair, equitable, transparent, competitive and cost-effective.<br>• Considers the following submissions:<br>• Procurement of the capital expenditure programme<br>• The procurement policy<br>• Funding decisions and exchange rate risks<br>• Forecast targets for B-BBEE. | 2 | 3 | Non-Executive Director | 4 |
| **Social and Ethics Committee** | • Assist the Board with the oversight of social and ethical matters relating to the Company, including the following statutory duties:<br>• Monitoring the Company's activities, having regard to any relevant legislation, other legal requirements or prevailing codes of best practice.<br>• Good corporate citizenship.<br>• The environment, health and public safety, including the impact of the Company's activities and of its products or services.<br>• Consumer relationships, including the Company's advertising, public relations and compliance with consumer protection laws.<br>• Labour and employment.<br>• Drawing matters within its mandate to the attention of the Board as occasion requires. | 2 | 3 | Non-Executive Director | 4 |

## TABLE 15: BOARD COMMITTEE RESPONSIBILITIES WITH REGARD TO INTEGRATED REPORTING ELEMENTS

| Integrated Reporting elements | Required activities | Board Committee |
|---|---|---|
| **Risks and opportunities** | • Review adequacy and effectiveness of ATNS's Enterprise Risk Management (ERM) process and associated control environment.<br>• Identify and assess material risks.<br>• Ensure effective mitigation activities to prevent or minimise the adverse impacts of material risks.<br>• Identify opportunities for innovation and growth. | • Audit and Risk Committee |
| **Strategy and resource allocation** | • Ensure appropriate strategic responses to risks and opportunities.<br>• Ensure appropriate and efficient processes, procedures and policies to provide an enabling environment and structural support to the Company's business.<br>• Ensure appropriate allocation of the various 'capitals', including:<br>• Financial capital (e.g., long-term borrowings)<br>• Manufactured capital (e.g., property, plant and equipment)<br>• Intellectual capital (e.g., brands, trade-marks and patents)<br>• Human capital (e.g., permanent employees)<br>• Social and relationship capital (e.g., industry alliances)<br>• Natural capital (e.g., air space, electricity and fuel) | • Audit and Risk Committee<br>• Human Resource Committee<br>• Procurement Committee<br>• IT Steering Committee<br>• Social and Ethics Committee<br>• Safety Committee |
| **Remuneration and incentives** | • Ensure appropriate, market-related remuneration, linked to performance.<br>• Ensure incentives and rewards are market-related and managed according to performance against targets, as per ATNS' Shareholder Compact and strategic objectives. | • Human Resource Committee<br>• Social and Ethics Committee |
| **Safety and health** | • Ensure a safe working environment for ATNS employees.<br>• Ensure alignment with global safety standards.<br>• Ensure 'safe procurement'.<br>• Ensure 'safety culture', including safety training. | • Safety Committee<br>• Procurement Committee<br>• Social and Ethics Committee<br>• Human Resource Committee |

| Integrated Reporting elements | Required activities | Board Committee |
|---|---|---|
| **Organisational transformation** | • Ensure ATNS B-BBEE Strategy align with Dti's Codes of Good Practice.<br>• Maintain and ensure favourable black representation at Board and Top Management levels.<br>• Ensure on-going equal opportunity initiatives.<br>• Ensure that procurement practices align with ATNS's enterprise development (ED) and supplier development (SED) objectives. | • Audit and Risk Committee<br>• Human Resource Committee<br>• Procurement Committee<br>• Social and Ethics Committee |
| **Environmental management** | • Ensure environmental sustainability through the management of carbon emissions and energy efficiency.<br>• Ensure responsible operational impacts on communities and bio-spheres (e.g., noise reduction).<br>• Ensure environmental risk management and compliance.<br>• Ensure organisational awareness for environmental sustainability issues.<br>• Ensure environmentally responsible procurement practices.<br>• Ensure 'Green technology' practices. | • Audit and Risk Committee<br>• Social and Ethics Committee<br>• Human Resource Committee<br>• Procurement Committee<br>• IT Steering Committee |
| **Stakeholder engagement and relationship management** | • Ensure positive stakeholder relationship engagement and management.<br>• Ensure proactive support for suppliers and constructive supplier management.<br>• Ensure positive employee relations and encourage adherence to ATNS's Code of Conduct and embed the Company's Values throughout the organisation.<br>• Ensure proactive SLA compliance management with suppliers.<br>• Ensure an enabling work environment for employees to achieve their professional and personal goals, share ideas, communicate openly and report concerns. | • Social and Ethics Committee<br>• Procurement Committee<br>• Human Resource Committee<br>• Audit and Risk Committee<br>• IT Steering Committee |

## Meeting dates of directors and attendance: April 2015 to September 2015

Attended ✓ Absent/Apology ✗ Chairperson **C** Member **M**

| Meeting | Date | Mamashela | Makhathini | Mgoduso | Tlhakudi | Mseleku | Zilwa |
|---|---|---|---|---|---|---|---|
| **Board Meeting** | 25/06/2015 | C✓ | M✓ | M✓ | M✓ | M✓ | M✓ |
| | 07/09/2015 | C✓ | M✓ | M✓ | ✗ | ✗ | ✗ |
| **Special Board Meeting** | 07/07/2015 | C✓ | ✗ | M✓ | ✗ | M✓ | ✗ |
| **HRC Meeting** | 19/05/2015 | M✓ | - | C✓ | - | ✗ | - |
| | 18/08/2015 | M✓ | - | C✓ | - | M✓ | - |
| **Special HRC** | 07/07/2015 | M✓ | - | C✓ | - | M✓ | - |
| **PROCOM** | 19/05/2015 | - | - | M✓ | C✓ | - | - |
| | 18/08/2015 | M✓ | - | M✓ | C✓ | - | - |
| **Audit and Risk** | 21/05/2015 | - | C✓ | - | M✓ | - | M✓ |
| **Special Audit and Risk** | 28/05/2015 | - | C✓ | - | M✓ | - | **Telecon** |
| **Social and Ethics** | 20/05/2015 | M✓ | - | - | - | ✗ | C✓ |
| | 19/08/2015 | M✓ | - | - | - | Telecon | C✓ |
| **AGM** | 07/09/2015 | C✓ | M✓ | M✓ | Telecon | ✗ | ✗ |

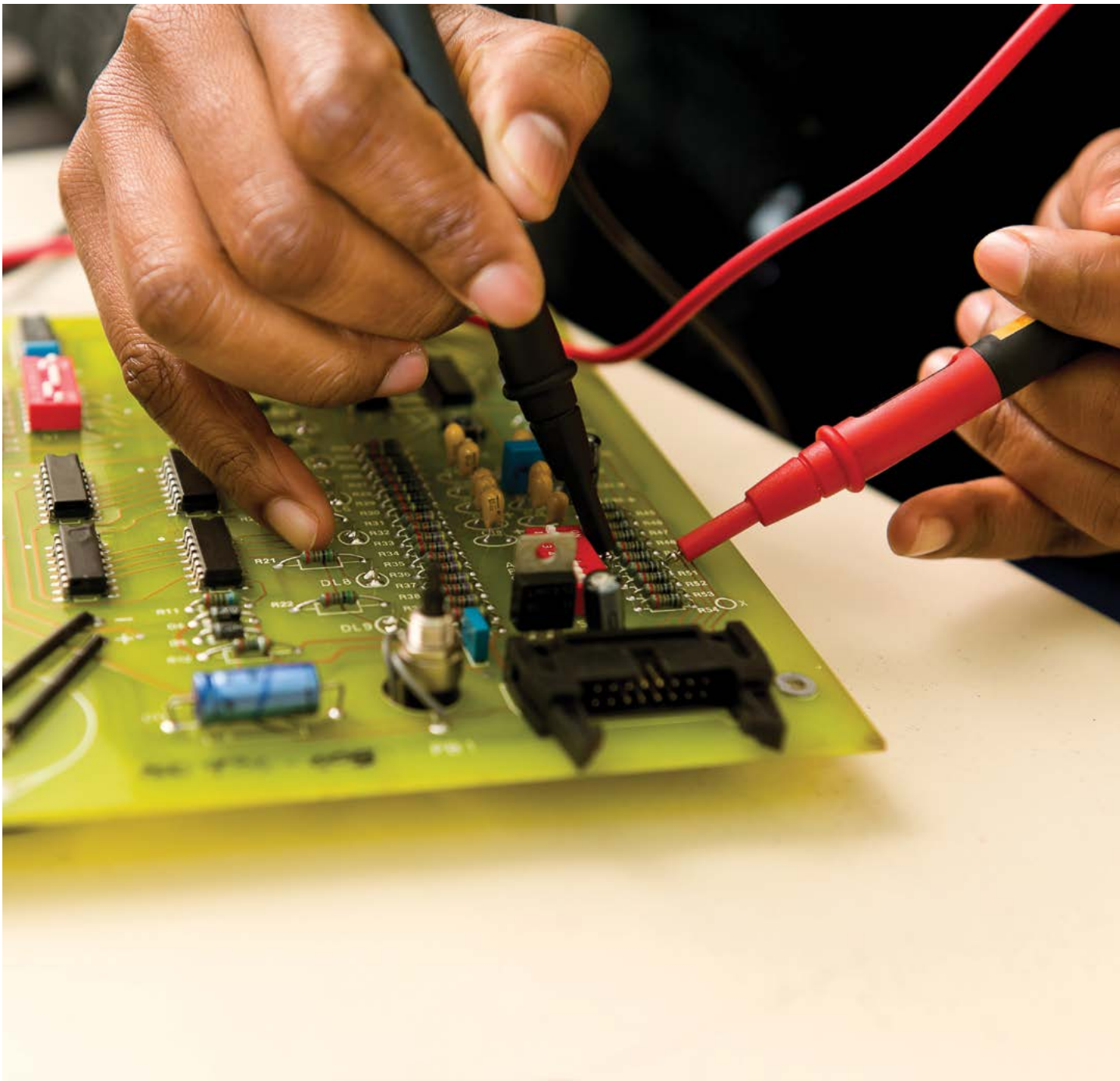
## Meeting dates of directors and attendance: September 2015 to March 2016

Attended ✓ Absent/Apology ✗ Chairperson **C** Member **M**

| Meeting | Date | Riba | Mtshali | Hari | Ssamula | Nkama | Mphahlele | Dhlamini | Mwanza |
|---|---|---|---|---|---|---|---|---|---|
| **Board Induction** | 15/10/2015 | ✗ | M✓ | M✓ | M✓ | M✓ | M✓ | M✓ | M✓ |
| | 16/10/2015 | C✓ | M✓ | M✓ | M✓ | M✓ | M✓ | M✓ | M✓ |
| **Board Meeting** | 08/12/2015 | C✓ | M✓ | M✓ | M✓ | M✓ | M✓ | M✓ | M✓ |
| | 01/03/2016 | C✓ | ✗ | M✓ | M✓ | M✓ | M✓ | M✓ | M✓ |
| **HRC Meeting** | 17/11/2015 | - | C✓ | - | M✓ | - | - | M✓ | M✓ |
| | 23/02/2016 | - | C✓ | - | M✓ | - | - | M✓ | M✓ |
| **Special HRC** | 30/11/2015 | - | C✓ | - | M✓ | - | - | M✓ | M✓ |
| **PROCOM** | 17/11/2015 | - | - | - | - | M✓ | C✓ | - | M✓ |
| | 26/02/2016 | - | - | - | Telecon | M✓ | C✓ | - | M✓ |
| **Special PROCOM** | 07/12/2015 | - | - | - | - | M✓ | C✓ | - | M✓ |
| **Audit and Risk** | 19/11/2015 | - | - | M✓ | M✓ | C✓ | M✓ | - | - |
| | 25/02/2016 | - | - | M✓ | M✓ | C✓ | M✓ | - | - |
| **Social and Ethics** | 18/11/2015 | - | M✓ | C✓ | - | - | - | M✓ | - |
| | 24/02/2016 | - | M✓ | C✓ | - | - | - | M✓ | - |
| **Board Strategy Session** | 22/01/2016 | C✓ | M✓ | M✓ | M✓ | M✓ | M✓ | M✓ | M✓ |
| | 23/01/2016 | C✓ | M✓ | ✗ | M✓ | M✓ | M✓ | M✓ | M✓ |

## Departures of senior executives

| Executive | Capacity | Date of departure | Reason for departure |
|---|---|---|---|
| M.D. Mamashela | Non-Executive Director | 31 August 2015 | Board rotation |
| H.T. Makhathini | Non-Executive Director | 31 August 2015 | Board rotation |
| F.K.N. Thlakudi | Non-Executive Director | 31 August 2015 | Board rotation |
| T.N. Mgoduso | Non-Executive Director | 31 August 2015 | Board rotation |
| S.V. Zilwa | Non-Executive Director | 31 August 2015 | Board rotation |
| S.G. Mseleku | Non-Executive Director | 31 August 2015 | Board rotation |
| F.Z. Msimang | Non-Executive Director | 31 August 2015 | Board rotation |



## ATNS Executive Committee

| Executive Directors | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Mr Thabani Mthiyane**<br>Chief Executive Officer<br>  | Mr Mthiyane has more than 15 years' experience in the aviation sector, specialising in air traffic management (ATM). He has held various senior management positions at ATNS, notably in the areas of maintenance policy development, management of capital projects as well as leading the technology team as part of the Executive team. An engineer by profession, he has held various senior management positions at the following companies: ESKOM, Transnet Ports Authority and NERSA. He is a registered Professional Engineer with the Engineering Council of South Africa (ECSA) and serves as a member of the South African Institute of Electrical Engineers (SAIEE), as well as the Institute of Directors Southern Africa. He served as a Trustee in the ATNS pension fund and as a member of the Air Services Licensing Council. He presently serves as Chairman of the Civil Air Navigation Organization (CANSO) for the Africa Region. During the 20th CANSO AGM, held in Vancouver, Canada in June 2016, Mr Mthiyane was elected as Vice Chair of CANSO Global Executive Committee. He further received the 'first runner up' award in the 2015/16 Best CEO Awards for the Transport Sector. | **Qualifications:**<br>• MBA (George Washington University, USA)<br>• BEng (Hon) Mechanical Engineering (University of Pretoria)<br>• BSc Engineering in Electrical Engineering (University of Natal)<br>• National Diploma in Electronic Engineering (Technikon Natal)<br>• Diploma in Management of ANSP (IATA Institute).<br>• International Executive Development Program with Wits University and the London Business School. |
| **Date appointed:**<br>5 July 2013 | | **Areas of core expertise:**<br>• Air services<br>• Licensing, compliance and governance<br>• Strategy and planning<br>• Engineering (Mechanical, Electrical and Electronic Engineering)<br>• Operational management<br>• Capital projects and policy development. |
| **Mr William Ndlovu**<br>Chief Financial Officer<br>  | Mr Ndlovu is a Chartered Accountant and served his articles at PricewaterhouseCoopers. He joined ATNS in October 2008 as Head of Internal Audit and formed part of the executive team. Before joining ATNS, Mr Ndlovu was a Group Risk Manager for Kagiso Media Limited, a formerly listed company on the JSE Securities Exchange. He was promoted to Chief Financial Officer at ATNS in May 2011 and occupies this position to date. He is an ATNS Executive Director and currently serves on the Board of Trustees of the ATNS Retirement Fund. He previously served as an Audit and Risk Committee Member of Corporate Governance and Traditional Affairs (COGTA). He is currently the Chairman of the Audit and Risk Committee of the National Credit Regulator (NCR). | **Qualifications:**<br>• CA (SA)<br>• Global Executive MBA (Georgetown University, USA, and Esade Business School, Spain). |
| **Date appointed:**<br>1 April 2013 | | **Areas of core expertise:**<br>• Audit and risk<br>• Financial management<br>• Governance and compliance |

| Executives | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Mr Peter Marais**<br>Acting Chief Operations Officer<br>  | Mr Marais is a graduate electronic engineer and is registered with the Engineering Council of South Africa. He was previously the Principal Radar Engineer at the National Department of Transport; and has held various senior positions within ATNS, including Engineering Manager, General Manager: Technical Services, Executive Manager: Training and Executive Manager: ATM/CNS. He is presently the Chairperson of the South African Development Community's Upper Airspace Control Centre Steering Committee and represents ATNS in regional and international bodies responsible for planning communication, navigation and surveillance infrastructure in the region. Mr Marais also chaired the CNS Committee of the ICAO 11th Air Navigation Conference. He has completed the UNISA Business School's Advanced Executive Management Programme and the Graduate School of Business (UCT) Leading Executive Programme. | **Qualifications:**<br>• Electronic Engineer registered with the Engineering Council of South Africa<br>• Project Management qualification (University of South Africa).<br>• Advanced Executive Program (University of South Africa School for Business Leadership) |
| **Date appointed:**<br>1 March 2010 | | **Areas of core expertise:**<br>• Engineering<br>• Air navigation, communication and surveillance<br>• Infrastructure and logistics<br>• Strategy and planning |
| **Mr Solomon Mngomezulu**<br>Company Secretary<br>  | Mr Mngomezulu is a non-practicing attorney, with extensive experience in commercial law and a focus on corporate and contract law. He obtained a Diploma in Company Direction with GIMT, endorsed by the Institute of Directors. Mr Mngomezulu is a member of the Institute of Directors of Southern Africa. He is a director of SOWISO (NPO). | **Qualifications:**<br>• BA LLB (University of Durban-Westville)<br>• Diploma in Dispute Resolution (Arbitration Foundation of Southern Africa)<br>• Diploma in Company Direction (GIMT)<br>• MBA (Gordon Institute of Business Science – GIBS) |
| **Date appointed:**<br>1 July 2003 | | **Areas of core expertise:**<br>• Governance and compliance<br>• Strategy and planning<br>• Corporate reporting<br>• Legal: commercial and contract |

| Executives | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Mr Hennie Marais**<br>Executive: Air Traffic Services<br>  | Mr Marais started his career in the South African Air Force in 1980 and obtained aerodrome, approach and area procedural and radar validations. He has worked as an aerodrome, approach and area procedural and radar controller at various airports and air traffic control centres within South Africa. He also served as an on-job-training instructor and validation examiner; as well as the Head of ATS Training and as Manager: Compliance and Standards at the Aviation Training Academy. In September 2004 Mr Marais was transferred to the Isando Corporate Offices as Manager: Standards Assurance. In this post he was responsible for the safety and regulatory oversight function within the company. He was appointed as Senior Manager: ATM Planning, Research and Development at the ATM/CNS Department in Isando from July 2006 and was responsible for the strategic planning of the ATM services to be delivered by ATNS into the future. Mr Marais is a member of the ICAO ATM Requirements and Performance Panel. Mr Marais is a director of Big Hearts (NPO). | **Qualifications:**<br>• Aerodrome, Approach an Area Procedural and Radar validations (University of Stellenbosch) |
| **Date appointed:**<br>1 March 2010 | | **Areas of core expertise:**<br>• Aviation operations management<br>• Training and mentoring<br>• Governance, compliance and regulatory oversight<br>• Safety management<br>• Strategy and planning |
| **Mr Dumisani H. Sangweni**<br>Executive: Strategy and Optimisation<br>  | Mr Sangweni has more than fifteen years' experience in the airline sector, transport sector and broader corporate and public sectors at the levels of business analyst, consulting and executive management. He was appointed Managing Director and CEO of Air Tanzania Company Limited (ATCL) by the ATCL Board in 2004, a joint venture company between South African Airways and the Government of Tanzania. Prior to this, Mr Sangweni had worked in various commercial executive roles at SAA, including at advisory level in the aviation and broader general transport industries. | **Qualifications:**<br>• BSc in Aviation Technology (Embry Riddle Aeronautical University, USA, 1991)<br>• Postgraduate diploma: Transport Economics (Rand Afrikaans University, Johannesburg 1997)<br>• Postgraduate diploma: Business Administration (PBL) (University of South Africa (University of South Africa, 1999) |
| **Date appointed:**<br>9 May 2013 | | **Areas of core expertise:**<br>• Commerce and business analysis<br>• Strategy and Planning<br>• Aviation operations management<br>• Transport and airline logistics |

| Executives | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Ms Tendani Ndou:**<br>Principal ATA<br>  | Ms Ndou has served in various management positions, such as General Manager: Internal Audit at City Power; Head of Internal Audit and Risk Management at SALGA; General Audit Manager for the Legal Aid Board, Cluster Audit Manager for Limpopo Provincial Internal Audit; and auditor (team leader) for the Auditor General. She is currently serving as a member of the Audit and Risk Committees at the South African Human Rights Commission (SAHRC) and Chairperson of the Audit and Risk Committee of the the South African Nursing Council (SANC). She is also a member of the Institute of Internal Auditors (IIA) South Africa. | **Qualifications:**<br>• BCom (Hons) Cost Management Accounting (University of Venda)<br>• CIA and Certificate in Control Self-Assessment (CCSA) (Institute of Internal Auditors (IIA)<br>• MBA (Georgetown University) |
| **Date appointed:**<br>1 June 2011 | | **Areas of core expertise:**<br>• Risk, audit and compliance<br>• Corporate governance<br>• Accounting, finance and management |
| **Ms Thandi Thankge**<br>Executive:<br>Human Capital<br>  | Ms. Thankge started her career with ABSA Bank as an HR Generalist and progressed into various positions in the human resources discipline. She has served in various HR management positions in companies such as De Beers Consolidated Mines, Afrox Limited and AVUSA Media Ltd. Prior to joining ATNS on 01 September 2014, she served as Head of Human Resources and Transformation at MAN Truck and Bus SA (Pty) Ltd. She is a seasoned Practitioner who brings a wealth of experience in the HR field, particularly in areas of talent management and transformation. Ms. Thankge is a registered Psychometrist: Independent Practice with Health Professions Council of South Africa (HPCSA). She is also a registered Master HR Professional, Generalist with the South African Board of People Practices (SABPP). Further, she is a member of the Society for Industrial and Organizational Psychology of South Africa (SIOPSA). Ms Thankge currently serves on the SA Board of People Practices. | **Qualifications:**<br>• MCom degree in Business Management (University of Johannesburg).<br>• BA Honours Degree - Industrial Psychology (University of South Africa).<br>• Advanced Programme in Organizational Development (University of South Africa).<br>• Advanced Programme in Labour Relations (University of South Africa).<br>• National Diploma in Library and Information Services (ML Sultan Technikon). |
| **Date appointed:**<br>1 September 2014 | | **Areas of core expertise:**<br>• HR Generalist.<br>• Talent management and transformation.<br>• Organisational development.<br>• Labour relations.<br>• Psychometric Assessment. |

| Executives | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Mr Achmed Wadee**<br>Chief Information Officer<br>  <br>**Date appointed:**<br>1 December 2011 | Mr Wadee started his career in aviation with ATNS in 1993 as a trainee Engineering Technician. He was posted to George Airport, where he spent four years as a technician. He was re-deployed to the engineering section at Head Office where he assisted engineers in the implementation of CAPEX projects. He then moved on to join the Airspace Efficiency team under operations, where he assisted with the implementation of the EUROCAT X system. He has since served as IT manager in ATNS and this role has recently evolved to that of CIO and IT being represented at both Exco and Board level. Mr Wadee is responsible for business IT systems implementation, a role which spans technology architecture, planning, governance, applications management, knowledge management and business intelligence. | **Qualifications:**<br>• National Higher Diploma in Electrical Engineering (University of Johannesburg).<br>• BCom Informatics - and a Practical Project Management qualification - (University of South Africa).<br><br>**Areas of core expertise:**<br>• CAPEX project planning and management.<br>• Information systems management, including technology architecture, planning and governance.<br>• Knowledge management and business intelligence. |
| **Mr Phillip Boshielo**<br>Chief Operations Technology<br>  <br>**Date appointed:**<br>1 December 2015 | Mr. Boshielo is a qualified Electrical Engineer, with extensive experience in the area of technology and telecommunications. As Chief Technology Officer for ATNS, he provides overall asset and technology management for the Company, which includes translating user requirements into solutions, as well as planning, developing and implementing technology systems. He also provides technical support and maintenance to ensure total lifecycle management of CNS and related infrastructure. Prior to joining ATNS, Mr Boshielo was the General Manager of Partnerships, Roaming and Wholesale for the MTN Group. He started his career at Eskom as an engineer-in-training, focusing on tele-communications. He subsequently moved to Denel, where he worked as an Electronic Engineer. He served as an Analysis and Test Engineer at BMW Group South Africa, after which he joined the Vodacom Group as a Senior Specialist of Ventures, later being promoted to Executive Head of Ventures. Mr Boshielo has held a lecturing position at the University of Pretoria and is currently reading a Masters' degree in Engineering. | **Qualifications:**<br>• BSc (University of Cape Town).<br>• BEng Honours Computer Engineering (University of Pretoria).<br>• MBL (University of South Africa).<br>• Certificate in Advance Executive Programme (University of Witwatersrand).<br>• Masters of Engineering: Project Management (University of Pretoria).<br><br>**Areas of core expertise:**<br>• Telecommunications and technology – systems planning, development and implementation.<br>• Technology lifecycle management and support services.<br>• Electronic engineering.<br>• Ventures and business development. |

| Executives | Experience | Qualifications and areas of core expertise |
|---|---|---|
| **Mr Thabani Myeza**<br>Executive Commercial Services<br>  <br>**Date appointed:**<br>1 April 2015 | Mr Myeza has served in numerous growth and business development roles. He has extensive experience in developing and implementing growth and new market strategies, including the establishment of start-up operations both in South Africa and in the region. Whilst at Tata Africa and also at General Electric, his focus has been on managing regional policy and regulatory issues, understanding their impact on the business and ensuring operational alignment. His career spans diverse industries. He formed part of a team that expanded Vodacom business in Tanzania and the Democratic Republic of Congo (DRC), after which he co-lead the establishment of commercial business services for Rand Water in the region. He has gained regional and international exposure through organisations such as the World Bank, European Investment Bank, NEPAD Agency and the World Economic Forum. | **Qualifications:**<br>• BCom Accounting (University of Zululand).<br>• MBA General Management (Texas Southern University).<br><br>**Areas of core expertise:**<br>• Commercial services and business development.<br>• New market strategies (locally and internationally).<br>• Policy development and operational policy alignment.<br>• Regional business expansion. |
| **Mr Jeoffrey Matshoba**<br>Executive ATM/cns<br>  <br>**Date appointed:**<br>1 July 2015 | Mr Matshoba started his career in the former Bophuthatswana government in 1991 as an Air Traffic Control trainee. He joined ATNS in 1998 and worked as an aerodrome and approach controller at various Air Traffic Service Units. He is a Senior Manager of Air Traffic Management Planning (Research and Development). Mr Matshoba is currently acting in the position of Executive ATM/cns Planning and Standards. He has served in various management positions in ATNS and also worked at the South African Civil Aviation Authority as Senior Manager responsible for Air Navigation Service, where he was responsible for regulatory oversight for ATS, AIS, CNS and Procedure design services. He was nominated by the DoT to champion the implementation of the SADC Upper Airspace Management Centre. | **Qualifications:**<br>• Bcom (University of South Africa)<br><br>**Areas of core expertise:**<br>• Air traffic navigation – planning and management.<br>• Management of air traffic standards.<br>• Civil aviation.<br>• Regulatory compliance. |

## ATNS Exco Members

Top: Mr Jeoffrey Matshoba, Mr Peter Marais
Below: Mr Thabani Myeza, Ms Thandi Thankge

From top: Mr Achmed Wadee, Mr Dumisani Sangweni, Ms Tendani Ndou, Mr Phillip Boshielo, Mr Solomon Mngomezulu, Mr Thabani Mthiyane

## ATNS control framework

The Company's control framework encompasses various governance and operational management components, including:

- Internal Audit.
- Fraud prevention, detection and investigation.
- Enterprise Risk Management (ERM).
- Performance management (Including safety, health, environment and quality).
- Information technology (IT) management and IT governance.
- Regulatory compliance (including tariffing and the ATNS Permission process).

Our Mission, Vision and Values form the keystone of our control environment and we emphasise the application of ATNS's Code of Ethics across all our business practices. Monitoring of control efficacy is further facilitated through:

- On-going activities that are built into the Company's normal, recurring operating activities, such as the quality management system and safety regulation assurance.
- Separate evaluations, such as combined assurance and internal auditing activities.
- Monthly risk registers.
- The use of key risk indicators, which enable ongoing monitoring of risks to reduce both impacts and likelihood of occurrence.
- Monthly monitoring and review of the risk register by the Internal Audit department.
- Quarterly monitoring and review of risk management activities by Executive Risk Management and Audit and Risk Committees.

### Internal audit

ATNS Internal Audit provides independent and reasonable assurance to the Audit and Risk Committee of the Board on the adequacy and effectiveness of risk management, and the control and governance processes put in place by management.

The ATNS Internal Audit function comprises of an ATNS in-house team, complemented by co-source partners who continue to play a vital role in assessing the adequacy and effectiveness of ATNS's internal control system.

Key strategic risks are considered in developing Internal Audit's three-year rolling plan. The Internal Audit function follows a risk-based approach in planning and executing audits. This ensures that Internal Audit's focus is aligned to the risk-intensive areas of the business as well as ensuring adequate coverage of key strategic risks facing the organisation.

As part of its methodology, the Internal Audit function makes recommendations to management where control weaknesses are identified in the internal control system. A continuous follow-up process has been established to ensure that Internal Audit's recommendations are implemented by management and that risks are mitigated and managed to acceptable levels set by the Board.

The Internal Audit function completed all planned audits for the year. Recommendations were made to management where deficiencies were identified and significant and major findings were escalated to the Audit and Risk Committee on a quarterly basis.

All activities of the Internal Audit function are governed by an Internal Audit Charter, which is tabled annually to the Audit and Risk Committee for consideration and approval by the Board.

### Fraud prevention, detection and investigation

ATNS's Fraud Prevention Plan was developed to comply with Treasury Regulations and the PFMA. The Plan should be read together with the ATNS Fraud Management Policy, Whistle-Blowing Policy and the ATNS Management Directive on Conflict of Interest.

The aforementioned policies are available online at http://www.atns.co.za/annual-reports.

The Fraud Prevention Plan takes into account the risks of fraud as identified in the Company's enterprise risk assessments and details strategic fraud and corruption risks that must be addressed. The Plan is designed to be dynamic and is continually evolving as ATNS makes changes and improvements in its drive to promote sound ethical behaviour. The Fraud Prevention Plan provides for mechanisms to achieve the following, amongst others:

- Early detection of fraud.
- The investigation of fraud to minimise negative impacts.
- Specific initiatives to prevent fraud.

The Fraud Prevention Plan aims to:

- Encourage a culture within ATNS where all employees, the public and other stakeholders behave ethically in their dealings with, or on behalf of, ATNS.
- Improve accountability, efficiency and effective administration within ATNS.
- Improve the application of systems, policies, procedures and regulations.
- Change operational aspects within ATNS that could encourage fraudulent behaviour and corruption and, which may go unnoticed or unreported.
- Encourage all employees and other stakeholders to strive towards the prevention and detection of fraud and corruption.

## Enterprise risk management (ERM)

The ATNS Board of Directors has, as one of its key directives, the effective management of material risks and opportunities. As a State-Owned Company operating within an international regulatory environment – as well as a globally volatile economic climate – ATNS needs to ensure vigilant risk management. Further, the Company has to provide organisation-wide assurance on priority issues such as regulatory compliance, safety management, environmental compliance, reputation management, operational efficiency, and project and financial risk management.

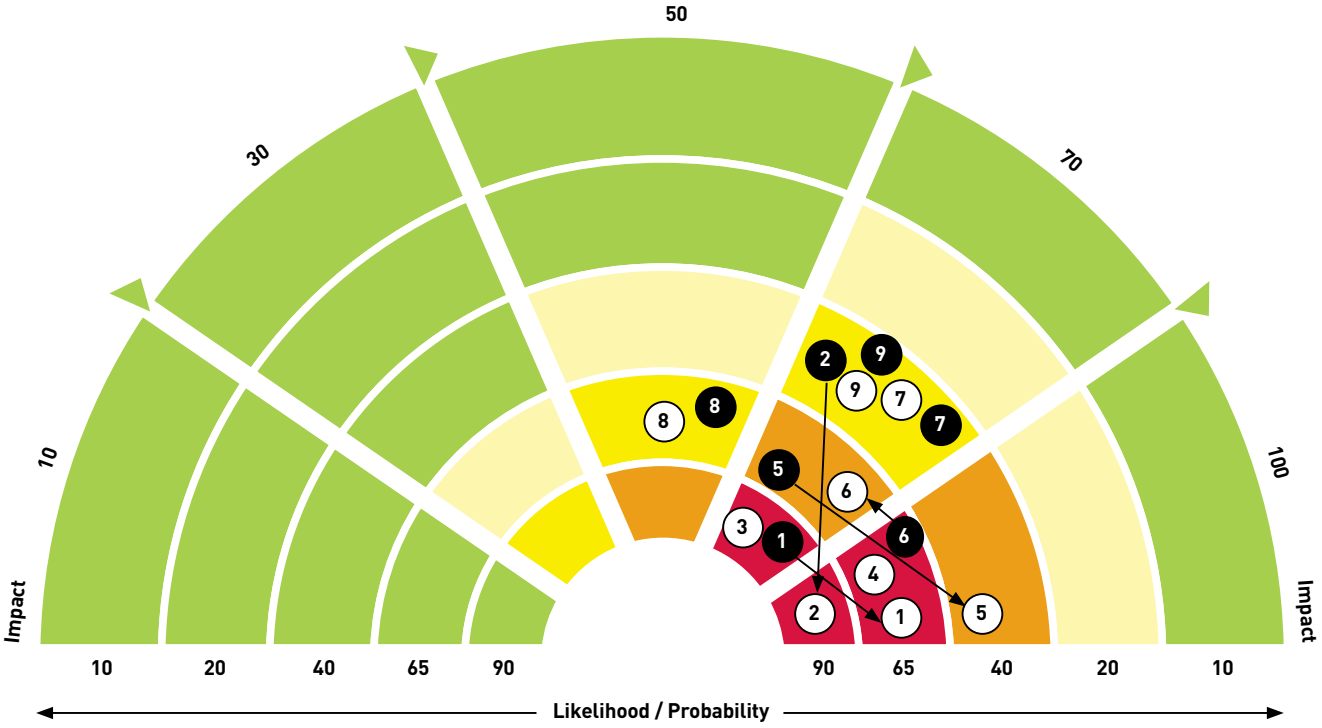
Key activities of ATNS's annual ERM process include:

- Performing an annual risk assessment to identify and affirm material strategic, operational and compliance-related risks according to their likelihood of occurrence and the potential severity of their impact on the organisation.
- Defining control activities through appropriate policies and procedures to mitigate the probability and impact of material risks at all levels of the organisation.
- Ensuring the smooth flow of communication and information-sharing pertaining to material risks within and between business units; including the communication of the Company's risk appetite, risk tolerance levels, and embedding a common risk language.
- Providing on-going training on the risk management process in order to embed a culture of risk awareness and enterprise-wide risk management within the Company.
- Allocating management responsibility for identified risks to 'risk champions' within the Company who can take ownership of the monitoring and reporting aspects of the risk management process.
- Monitoring and reporting on progress in managing identified risks through the Executive Management Committee and its sub committees.

During the year, the Board continued to demonstrate its commitment to the enterprise risk management (ERM) process and recognises the importance of a strong control environment in managing risks, improving performance, enhancing governance, promoting stakeholder confidence and safeguarding the Company's reputation.

Figure 9 outlines the Company's top 9 risks as they pertain to ATNS's long-term economic, social and environmental sustainability. Risks have been plotted on a 'residual risk heat map' to demonstrate the likelihood of occurrence, potential impact, and the residual risk exposures to the Company. Table 16 provides a strategic view of ATNS's top-9 risk profile, linking material risks to impacted strategic objectives, together with associated risk-owners and mitigation activities.

## FIGURE 9: ATNS RESIDUAL RISK HEAT MAP (TO BE UPDATED)




**Impact key**
**Minor: 10%**
**Significant: 30%**
**Serious: 50%**
**Critical: 70%**
**Catastrophic: 100%**

**Residual risk exposure**
Priority 1 - Immediate action
Priority 2 - More controls required
Priority 3 - Monitor risk exposure
Priority 4 - Acceptable risk exposure
Priority 5 - Reduce controls

**Residual risk movements**
2014/15
2015/16

| 2015/16 no.: | 2015/16 priority | 2015/16 Residual Risk | 2014/15 priority |
|---|---|---|---|
| 1 | 1 | Major safety event e.g. mid-air collision | 1 |
| 2 | 1 | Cyber Security Threats | 3 |
| 3 | 1 | Inadequate business continuity plans and disaster recovery plans | New risk |
| 4 | 1 | Political instability in certain African countries | New risk |
| 5 | 2 | Reliance on third party service providers | 2 |
| 6 | 2 | Unavailability of deployed CNS technology | 1 |
| 7 | 3 | Physical security of infrastructure | 3 |
| 8 | 3 | Critical skills in global demand | 3 |
| 9 | 3 | Financial sustainability | 3 |

## Major risk movements – 2014/15 – 2015/16

**Major safety event, such as a mid-air collision:** Control effectiveness changed from satisfactory to weak, which led to the residual rating moving from a Priority 3 in 2014/15 to a Priority 1 in 2015/16. This is as a result of a potential judgement error, or procedures not been followed by the Air Traffic Controllers. Operations management has revised and enhanced action plan to reduce the risk exposure.

**Cyber Security Threats:** The risk of cyber security threats moved form a Priority 3 in the prior year to a Priority 1 in 2015/16 following an audit on ATNS's control environment to manage this risk. The control environment was deemed weak and in need of additional investment to improve controls. The risk of cyber threats can have catastrophic impacts on ATNS's infrastructure environment given its technology-intensive context.

**Reliance on third party service providers**: This risk moved from a no 6 on the prior year's risk profile (Priority 2) in 2014/15 to no 5 (remains Priority 2) in 2015/16 given increased partnership agreements. Skills transfer remains an important directive in ATNS's partnership agreements.

Unavailability of deployed CNS technology**: Due to the positive improvements on the key risk indicator** during the year, the risk priority changed from Priority 1 to Priority 2. This was mainly due to the installation of the VDF at the priority sites.

The risks of **Non-achievement of Capex targets** and **Financial sustainability** were clustered during the year to improve the collective control environment; hence the Capex risk has fallen out of the top 9 risks, leaving the Financial sustainability risk at no. 9. Further, given that ATNS has met its B-BBEE targets, this risk is no longer on the top-9 radar.

The following risks remained static from year to year:

- Physical security of infrastructure
- Critical skills in global demand

Two new risks were introduced into the top-9 risk profile:

**Inadequate business continuity plans and disaster recovery plans**: this risk is a cluster of other risks, including **Inflexible and inefficient ATNS operations**, which featured as risk no. 5 in the prior year's risk profile.

**Political instability in certain African countries**: This risk features at no. 4 on the risk profile, given the increased focus of ATNS's international business strategy on business opportunities in the African continent through the non-regulated business.

## TABLE 16: ATNS TOP RISKS ALIGNED TO STRATEGY

| No | Risk name | Strategic objectives impacted | Risk owner | Impact | Likelihood | Inherent risk exposure |
|---|---|---|---|---|---|---|
| 1 | Major safety event e.g. mid-air collision | • Build a culture of safety<br>• Ensure long-term financial sustainability<br>• Develop leadership capability in the Africa ATM space | CATS | Catastrophic | Almost certain | Extreme |
| 2 | Cyber Security Threats | • Build a culture of safety<br>• Enhance operational efficiencies in line with global ATM standards | CIO | Catastrophic | Almost certain | Extreme |
| 3 | Inadequate business continuity plans and disaster recovery plans | • Build a culture of safety<br>• Enhance operational efficiencies in line with global ATM standards<br>• Develop leadership capability in the Africa ATM space | COO | Catastrophic | Likely | Extreme |
| 4 | Political instability in certain African countries | • Develop leadership capability in the Africa ATM space<br>• Ensure long-term financial sustainability<br>• Build a culture of safety | CEO | Catastrophic | Likely | Extreme |
| 5 | Reliance on third party service providers | • Build a culture of safety<br>• Build a skilled and capable employee resource base<br>• Enhance operational efficiencies in line with global ATM standards | COT and CIO | Catastrophic | Almost certain | Extreme |
| 6 | Unavailability of deployed CNS technology | • Enhance operational efficiencies in line with global ATM standards<br>• Develop leadership capability in the Africa ATM space<br>• Build a culture of safety | COT | Catastrophic | Almost certain | Extreme |

| Perceived control effectiveness | Residual risk exposure | Mitigation plans |
|---|---|---|
| Weak | Priority 1 | • Deployment of operational supervisors to monitor and coordinate daily operations in selected sectors.<br>• Demand and capacity balancing in terminal airspaces (TMA) to reduce workload and improve efficiency.<br>• Airspace and procedure design assessment to identify improvement areas in support of safety and efficiency<br>• Implementation of proactive measures to identify safety hazards and risks.<br>• Implementation of safety investigation teams.<br>• Improved management and oversight of daily operations. |
| Satisfactory | Priority 1 | • Cyber Security Management Training<br>• Develop Cyber Security Policy Framework<br>• Advertised vacant IT security positions and expected to be filled march 2016<br>• Review of the current policy, directives and procedures.<br>• Relooking at user awareness strategies<br>• Enabling user monitoring reports for internet usage.<br>• Implement recon of audit |
| Unsatisfactory | Priority 1 | • Project roll out site to site replication and service restoration technology for the Head Office<br>• Conduct an integrated DR tests among critical departments<br>• Upgrade ATA and OR Tambo relocation sites<br>• Prepare recovery sites for HO at ATA.<br>• Engage other training facilities that can be used as recovery sites for ATA.<br>• Establish independent telephone, radio and Data lines to the SSS at OR Tambo.<br>• Separate independent telephone and radio lines facility to be installed at SSS OR Tambo<br>• Voice recording capability in the SSS to be installed SSS OR Tambo<br>• Roll out National Project to be register to establish minimum and implement requirements for the ATNS BCP and Disaster recovery |
| Weak | Priority 1 | • Develop periodic political barometers and environmental scan to keep abreast with developments in each country.<br>• Deploy a tool to analyse risk exposure (political, legal, employee safety and company protection)<br>• Partner with other service providers to reduce ATNS risk exposure.<br>• Continuous and regular engagement with SA embassies / DIRCO/ State Security Agency/ DoT/DTI offices in relation to the respective countries.<br>• Utilise existing government to government channels, i.e. bilateral.<br>• Develop MOU with other countries, |
| Good | Priority 2 | • Annual review of the SLAs<br>• Annual review of the disaster recovery plans<br>• Regular testing of the contingency plans. |
| Satisfactory | Priority 2 | • Monitor the trend analysis and action any deviation observed<br>• Implement ad hoc equipment life extension plans.<br>• Critical issue to address supply chain management challenges |

| No | Risk name | Strategic objectives impacted | Risk owner | Impact | Likelihood | Inherent risk exposure |
|---|---|---|---|---|---|---|
| 7 | ATNS physical infrastructure is experiencing theft and vandalism. | • Enhance operational efficiencies in line with global ATM standards<br>• Build a culture of safety | ESO | Critical | Likely | High |
| 8 | Critical skills in global demand | • Enhance operational efficiencies in line with global ATM standards<br>• Build a skilled and capable employee resource base Create a transformative organisation<br>• Develop leadership capability in the Africa ATM space | E HC | Critical | Likely | High |
| 9 | Financial Sustainability | • Enhance operational efficiencies in line with global ATM standards<br>• Ensure long-term financial Sustainability | CFO | Catastrophic | Likely | Extreme |

## Quality Statement

The Strategy and Optimisation function is also the custodian of the Quality Management System (QMS). ATNS is ISO 9001 Certified in that it has embraced the Total Quality Management system. This year the Company again performed a surveillance audit on the QMS. No major or minor findings were reported. As a result, ATNS continues to maintain its certification. This emphasises ATNS's commitment to sound governance and ethical leadership; and, above all, to provide quality and safe services.

## IT governance

The IT governance process establishes a formal regulatory framework to govern ATNS's information technology (IT) function and provides a platform from which to develop processes and procedures to support the governance framework. During the 2015/16 financial year, ATNS's internal auditors performed a gap analysis in order to determine the current ATNS Governance maturity level, as well as to determine the ATNS Board and Management interventions required to ensure that the Company's IT governance complies with the KING III Code. In the last five years, ATNS has consistently improved on its IT governance.

## Regulatory compliance

ATNS established a Permission Planning Committee (PPC) as a permanent EXCO subcommittee, with the express aim of facilitating the permission planning process. ATNS subscribes to a modular approach in compiling permissions and the PPC, through its Permission Module Managers project team, drives the preparation and maintenance of information modules needed to compile permission applications as mandated by the Regulating Committee in its Approach document.

The PPC facilitates the proper and systematic planning of the ATNS business and also guides the process of compiling permission modules in preparation for permission submissions. The PPC also ensures modules are kept 'live' and updated on an annual basis to monitor progress in the implementation of the current permission, thereby tracking 'actual'

| Perceived control effectiveness | Residual risk exposure | Mitigation plans |
|---|---|---|
| Satisfactory | Priority 3 | • Develop standardised processes and procedures for the security management systems<br>• Develop and implement an awareness training for OT personnel delegated for security function<br>• Investigate the feasibility of training and registration of delegated Security OT personnel to comply with PSIRA<br>• Conduct a feasibility study for the centralisation of the security services |
| Satisfactory | Priority 3 | • Implementation of human capital plan to address skills shortages (to be done as part of approved strategy)<br>• Remuneration review (included in reward philosophy)<br>• HC to formalise Succession Planning for core critical positions (included in reward philosophy)<br>• All JDs to be reviewed (included in reward philosophy)<br>• Retention and transfer of the institutional knowledge |
| Good | Priority 3 | • Continuously monitor and highlight non-compliance at executive level.<br>• Revision of the 2015/16 budget upon the gazetting of the new tariffs |

versus 'budgeted' permission Key Performance Indicators (KPIs) and reporting on deviations. This provides input for the yearly budgeting process in addition to developing a repository of historic permission data needed to feed into and help guide subsequent permission application processes. There are eight modules that are managed by the PPC and which assist in building a permission application, listed below:

- Macro-economic module
- Traffic forecast module
- Capital Expenditure (Capex) module
- Operations and maintenance module
- Human Capital module
- Administration module
- Financial module
- Future Operating Environment module (New)

A potential module which is not specifically part of the Company's functional structure, or a supplementary module required by the regulator, is that of governance and compliance. A number of organisational actions are subject to statutory tests (e.g. safety, borrowings, B-BBEE, and so forth). The set of modules would therefore, be incomplete without a Compliance and Governance Module. Governance includes requirements of the Public Financial Management Act (PFMA) (e.g. borrowing), the Companies Act and related obligations (e.g. employer obligations) and the ATNS Act (e.g. ministerial approvals).

Further, there are supplementary components required by the Regulating Committee, such as the strategic and business review, reconciliation of historic expenditures and budgets, KPIs, accounting policies, consultation reports, and financial modelling. These components are, however, not inputs to, but rather outputs from key components and modules. They will, therefore, be generated for each Permission application, based on the contents of the key modules.

## Remuneration

The Human Resources Committee recommends annual remuneration for both executive and non-executive directors and considers associated performance measures and benefits when assessing

remuneration. State-Owned Companies require people with exceptional competencies and experience to provide strategic leadership; as well as strengthen opportunities for direct and indirect employment for thousands of people. They are also responsible for generating returns on investor funding and have the added responsibility of managing strategic national resources.

*Refer to Annexure A in this report for ATNS's full remuneration report.*

## Remuneration philosophy

ATNS's remuneration philosophy reflects the dynamics of the market and context in which it operates. It is our aim, to align – at all times - with the strategic direction and specific value drivers of the business within which ATNS operates, supporting the philosophy of Value Based Management. As such, remuneration plays a critical role in attracting and retaining high performing individuals. Remuneration also reinforces, encourages and promotes superior performance. Remuneration is not considered to be a stand-alone management process, but rather one that is fully integrated into other management processes.

The current remuneration policy explicitly aligns with the strategic direction of the organisation in order to:

- Attract, motivate and retain high-performing individuals; and
- Promote employee engagement by:
- recognising and rewarding exemplary performance,
- establishing a learning organisation,
- managing the culture of change, and
- providing opportunities to grow and develop.

ATNS's remuneration policy supports the philosophy of the exchange relationship between ATNS (the employer) and its employees. The employee provides time, talent, efforts and results, and ATNS, as the employer provides rewards which are equitable, fair, consistent and transparent within the Company. ATNS views it as appropriate to reward people differently according to their contribution (Return on Investment). Rewards should also be competitive within the market, nationally and internationally.

ATNS subscribes to - and is fully compliant with – the ten UN Global Compact Principles. These principles guide our remuneration strategy and philosophy.

**Benchmarking and position in the market**

ATNS performs regular remuneration benchmarks to ensure that we remain market aligned and competitive. The Company's defined market position is the midpoint of the market, however, the pay progression for entrants to sustained superior performance will range from the minimum to the maximum of the pay scale. In line with the business strategy, employees with key skills are paid between the midpoint and the maximum of pay scale.

The benchmarking of executive positions in the South African labour market faces many challenges in making logical and fair comparisons between different jobs. Executive positions are benchmarked annually, using a top executive survey. This benchmark informs the organisation of the market-related salaries of executive management within the South African labour market.

### Components of remuneration

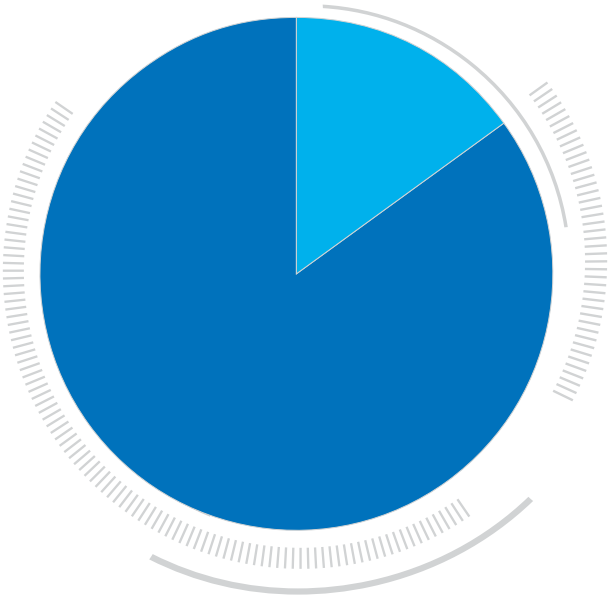
Total remuneration consists of guaranteed pay, variable pay, plus short-term incentives.

**Guaranteed pay**

ATNS remunerates using the 'cost to company' method of payment. The cost to company includes the cash component plus employee benefits. The Company provides employees with contractually agreed basic benefits such as medical aid and retirement fund benefits, which includes the pension fund and associated benefits, such as disability and life insurance. Employees, including the executive management, are afforded the opportunity to structure remuneration packages according to individual needs within prescribed legal parameters. To encourage a high-performance culture, the determination of annual salary adjustments is performance-based only. Employees are evaluated against annually set routine objectives, which encompass the scope and nature of the role and job content.

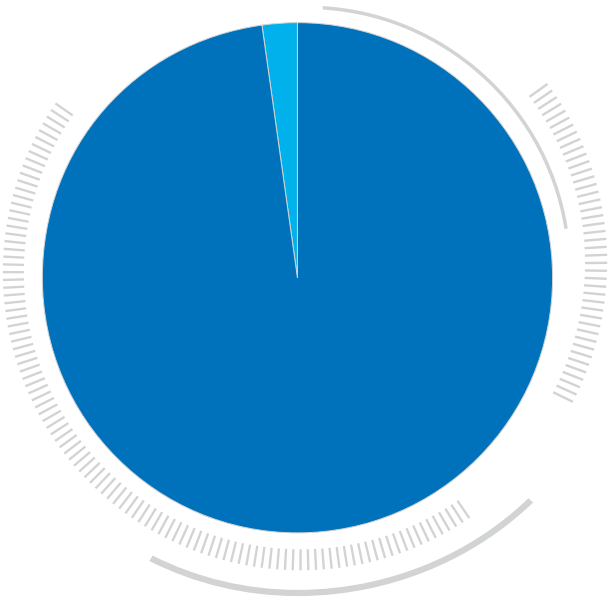
## GRAPH 4: CONSOLIDATED EXECUTIVE REMUNERATION 2015/16 COMPARED TO 2014/15

### Consolidated Executive Remuneration 2015/16



- Basic salary: R22,456,968
- Bonus: R3,844,579

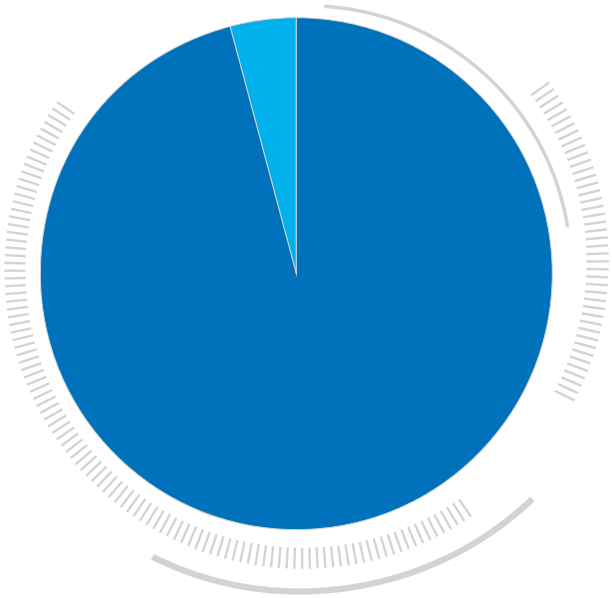
### Consolidated Executive Remuneration 2014/15



- Basic salary: R16,025,286
- Bonus: R2,840,394

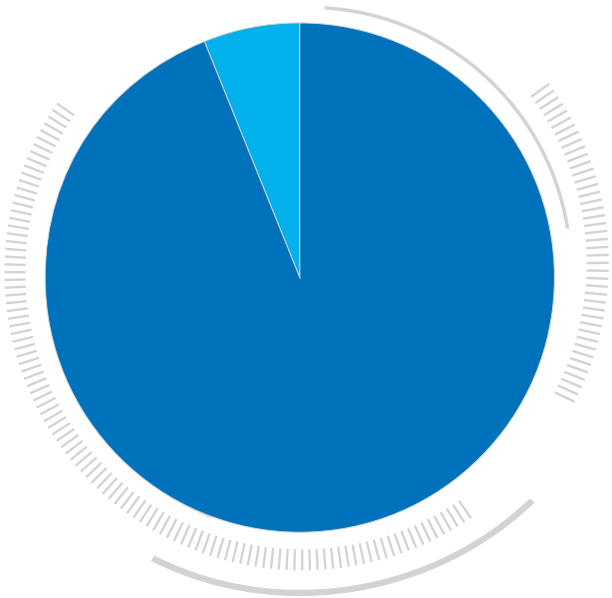
## GRAPH 5: CONSOLIDATED NON-EXECUTIVE REMUNERATION 2015/16 COMPARED TO 2014/15

### Consolidated Non-Executive Remuneration 2015/16



- Directors fees: R3,549,380
- Other benefits and allowances: R135,783

### Consolidated Non-Executive Remuneration 2014/15



- Directors fees: R2,899,476
- Other benefits and allowances: R191,865

**Retirement benefit**

The retirement fund is a fixed component of the employee's guaranteed pay. All permanent employees are members of the ATNS retirement fund. The fund is a defined contribution fund and is governed by the Pension Funds Act of 1956, which requires an actuarial valuation to be carried out every three years. The Company does not provide any post-retirement benefits to employees and has no exposure to postretirement benefit obligations.

ATNS offers employees a flexible pensionable/non-pensionable remuneration split, including:

- 60% pensionable 40% non-pensionable.
- 70% pensionable 30% non-pensionable.
- 80% pensionable 20% non-pensionable.
- 85% pensionable 15% non-pensionable.

**Healthcare Benefit**

Healthcare membership is a condition of service for all permanent ATNS employees. The healthcare benefit is a fixed component of the employee's guaranteed pay. ATNS currently contracts to a single healthcare service provider for all employees, which ensures favourable underwriting conditions for employees to join and remain members of the scheme.

**Variable pay**

Variable pay includes all allowances ATNS may offer to employees from time to time. For the executive management it includes any acting allowances for acting in another role as duly authorised and approved; and a principal officer allowance for occupying the role of the principal officer on the pension fund. Variable pay for mission-critical positions includes variable allowances for the attraction and retention of key skills and experience.

**Short-term performance incentive bonus**

ATNS views performance management as a strategic business process as it informs and drives a number of business policies and practices. Performance management has the following intended outcomes:

- Providing a systematic framework for performance planning, performance monitoring, reviews and performance appraisal.
- Promoting a shared sense of responsibility amongst staff for the achievement of strategic objectives.
- Promoting a culture of transparency and participation through open dialogue about goals and the achievement thereof, personal development and performance improvement.
- Ensuring that employees are given the direction and support required to excel in their jobs.
- Improving organisational performance by linking the ATNS balanced scorecard to individual/ team outputs.

Performance incentive bonuses are based on:

- The overall performance results of ATNS for the financial year at the end of March, with a link to the key performance indicators set for the organisation at the beginning of the financial year.
- The performance of the department.
- The employee's performance against balanced scorecard objectives.

The Company applies a five-point rating scale to the measurement of the employee's performance against balanced scorecard objectives. Performance incentive bonuses are awarded to employees in the following categories:

- Meeting expectations.
- Exceeding expectations.
- Significantly exceeding expectations.

## Non-Executive directors' remuneration

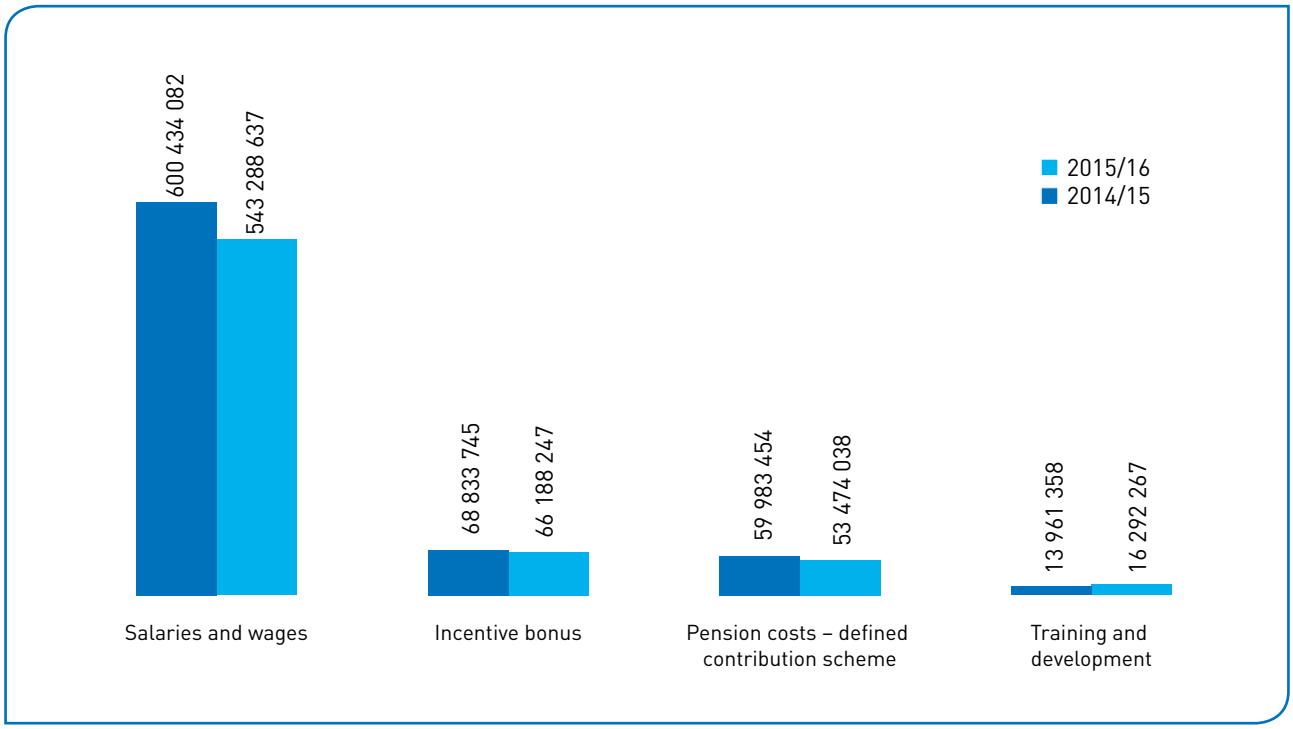
Non-executive directors receive fees for their services on the Company's Board and Board Committees. Directors' fees are determined by the Department of Transport (DoT).

## Salaries and related costs

Graph 6 provides a summary of the ATNS cost of employment for the year. All remuneration policies and procedures are fully compliant with current

legislation and, where applicable, in adherence to the collective substantive salary agreement entered into between ATNS and the recognised trade union, Solidarity. This agreement is a four-year agreement and terminated on 31 March 2015. Payroll is audited annually by both internal and external auditors. If any findings result from the audit, these are reported to the Audit and Risk Committee of the ATNS Board. In line with ATNS's philosophy of continuous improvement, the current remuneration philosophy is being reviewed and benchmarked against global best practice to ensure industry relevance.

GRAPH 6: STAFF COSTS: COMPARATIVE VIEW 2014/15 AND 2015/16



## Code of ethics

ATNS's code of ethics enables a culture of entrenched values and norms that guide the behaviour of the Company's employees. The Code aims to instil ATNS' shared value system which includes the broad values of accountability; safety and customer service; continuous improvement and innovation; employee engagement and development; fairness and consistency; open and effective communication; and zero harm to self, others and the environment. The Code commits the Executive Directors and employees to the highest standards of ethical behaviour and all ATNS employment contracts reference the Code. The Company's service providers, suppliers and trade partners are also subject to the Code in that they are required to sign the Procurement Code of Conduct, which is based on the Company's Code of Ethics.

The Executive Human Capital is responsible for the development, review and implementation of the Code. The Code is reviewed annually. The Code informs fraud and corruption awareness training, and is accessible to all ATNS employees on the Company's intranet.

The Code is accessible to the general public online at http://www.atns.co.za/annual-reports.

# MATERIAL ISSUES

ATNS defines 'materiality' for its reporting in terms of 'issues' that substantively impact the organisation's ability to create and sustain value over the short, medium and long term.

We have maintained consistency in our reporting across our three reports in terms of what the Company considers 'material'. Accordingly, issues that are considered 'material' in terms of our sustainability reporting are by implication, also considered 'material' in the context of our Integrated Annual Report and our Annual Financial Statements. ATNS' Sustainability Framework outlines multiple key financial, social and environmental sustainability issues, some of which have been clustered together as 'material issues' for purposes of simplifying ATNS's reporting.

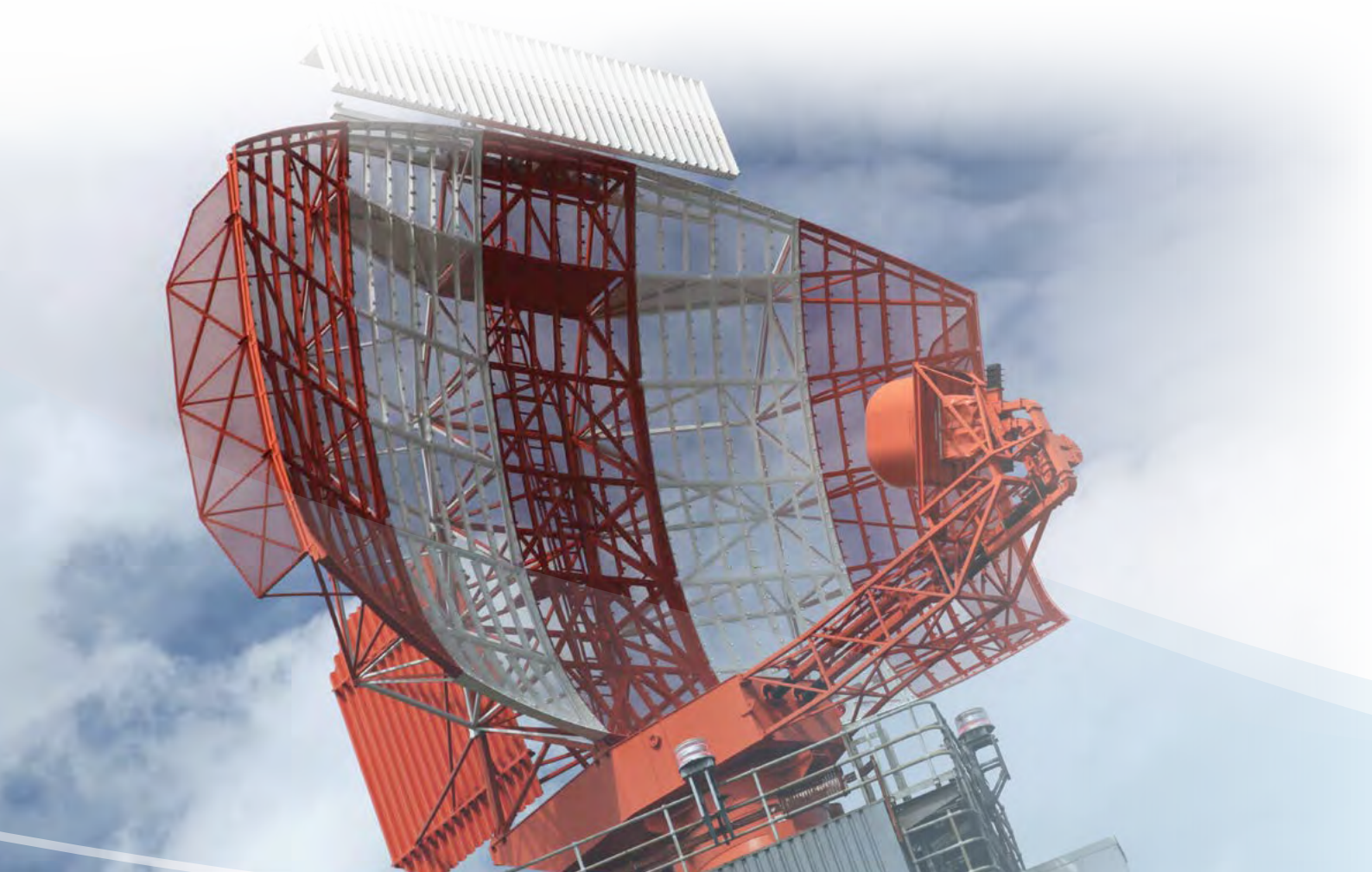
We have used a combination of internal and external criteria to determine whether an aspect is material, including factors such as the organisation's overall mission and strategy, concerns expressed directly by stakeholders, broader social expectations, and the organisation's influence on upstream entities (such as supply chain) and downstream entities (such as customers). Our assessments of materiality also consider the basic expectations expressed in the national and international standards and agreements with which the organisation is expected to comply.

Table 17 summarises the internal and external criteria used to determine the materiality of reported content and disclosures.

TABLE 17: CRITERIA FOR DETERMINING MATERIALITY

| Reporting considerations | Internal criteria | External criteria |
|---|---|---|
| Aviation industry requirement by the broader civil aviation. | ICAO Performance-Based ATM Operational Framework and ASBU Methodology; and global aviation regulatory requirements. | Global air traffic management (ATM) requirements, trends and standards; as well as leading practice safety performance benchmarks. |
| Basic expectations expressed in the national and international standards and agreements with which the organisation is expected to comply. | Statement of Strategic Intent and Shareholder Compact; 12 National Outcomes of Government and departmental outcomes of the Department of Transport. | Changes in the socio-economic developmental agenda and priorities of National Government. |
| ATNS key performance indicators as outlined by the Shareholder's compact. | ATNS Performance-Based Navigation Roadmap and Implementation Plan. | Socio-economic changes and challenges (e.g. barriers to market entry) in ATNS's key market segments (local and regional). |
| ATNS key performance indicators as outlined by the Shareholder's compact. | ATNS's mission, vision and values; Business Concept; strategic imperatives; critical issues; programmes; and Key Performance Indicators (KPIs). | Critical commercial opportunities as well as market and environmental risks ATNS is geared to respond to, locally, regionally and globally; as well as factors which may impact ATNS's reputation, thereby influencing its ability to promote sustainable growth. |

| Reporting considerations | Internal criteria | External criteria |
|---|---|---|
| ATNS top 10 high-level organisational risks. | ATNS's Enterprise Risk Management (ERM) Process, including the key operational risks impacting ATNS' strategic and operational objectives and the associated mitigating activities; as well as ATNS's governance and compliance frameworks; and the Company's Sustainability Framework and associated policies and processes to manage financial, social and environmental sustainability outcomes. | The provisions of various frameworks including: Public Finance Management Act (PFMA); King III Code on Corporate Governance (King III); Discussion papers issued by the South African Integrated Reporting Committee and the International Integrated Reporting Council (IIRC); International Financial Reporting Standards (IFRS); GRI Framework; United Nations Global Compact; Carbon Disclosure Project; B-BBEE Code. |
| List of key internal and external stakeholder issues as outlined by our stakeholder relation process and broader social expectations. | Stakeholder expectations and feedback on material considerations as captured and monitored through ATNS' stakeholder engagement process – e.g. business community, Airport customers, ACSA, Non-Governmental Organisations (NGOs), National and Provincial Governments, regional partners, designated targeted groups, academics, investors and the media. | Changes in the national, regional or global political environment and a changing regulatory landscape. |



## Clustering and prioritising ATNS material issues

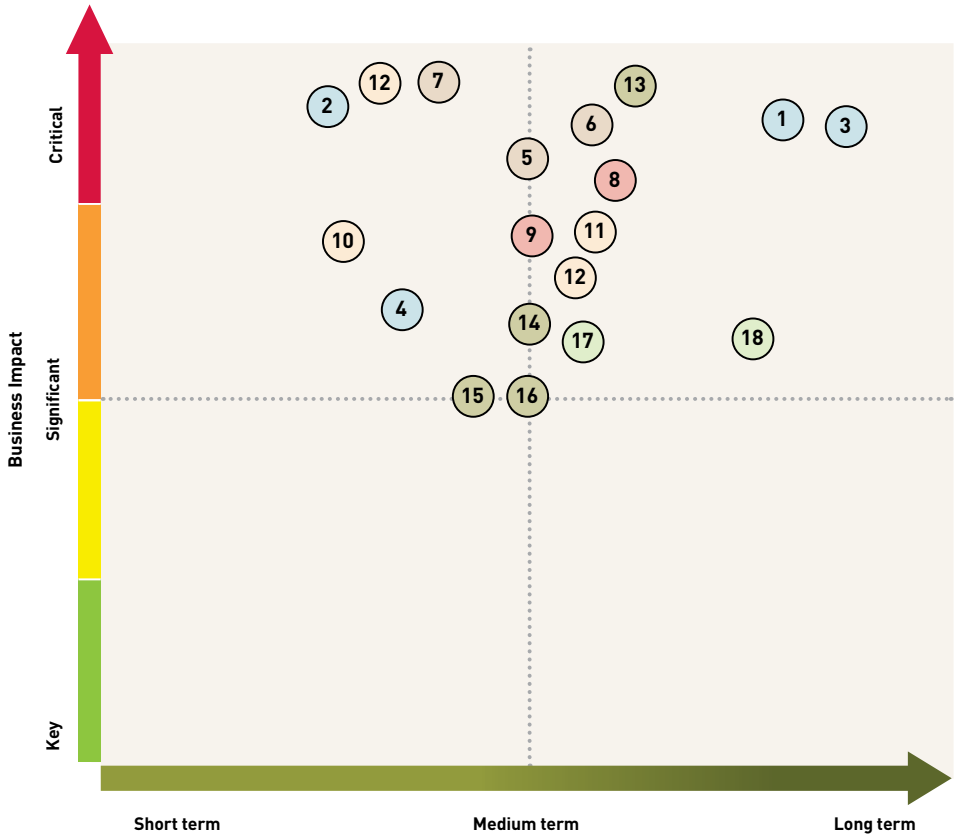
Table 18 clusters ATNS's material issues in terms of the six capitals.

TABLE 18: ATNS MATERIAL ISSUES ACROSS THE SIX CAPITALS

| Financial capital | Manufactured capital | Intellectual capital | Human capital | Social and relationship capital | Natural capital |
|---|---|---|---|---|---|
| Financial stability | Operational efficiencies, service reliability and network performance | Training and development in sector-specific skills | Employment equity | Safety service provision | Managing carbon emissions |
| | | | | Supply-chain practices | |
| Permission planning in the regulated business | Infrastructure investment | Research and development | Safety culture | Skills development within communities where we operate | Managing natural resources |
| Increasing revenue in the non-regulated business | | | Staff wellness | Quality community projects | |
| Increasing economic value through Broad-Based Black Economic Empowerment | | | Employee training and development. | | |

Figure 10 illustrates ATNS's prioritisation of material issues in terms of the Company's short, medium and long-term strategic vision.

## FIGURE 10: MATRIX OF MATERIAL ECONOMIC, SOCIAL AND ENVIRONMENTAL SUSTAINABILITY ISSUES




1. Financial stability
2. Permission planning in the regulated business
3. Increase revenue in Non-Regulated Business
4. Increasing economic value through Broad-Based Black Economic Empowerment
5. Operational efficiencies, service reliability and network performance
6. Infrastructure investment
7. Safe operations
8. Training and development in sector-specific skills
9. Research and development
10. Employment equity
11. Staff wellness
12. Employee training and development
13. Safety service provision
14. Supply-chain practices
15. Skills development within communities where we operate
16. Quality community projects
17. Managing carbon emissions
18. Managing natural resources

# STAKEHOLDER ENGAGEMENT

ATNS recognises the importance of securing stakeholder support for our long-term success by enhancing transparency, sharing knowledge, and generating innovative solutions. The Company regularly engages key stakeholder groups that are most relevant to the business. These dialogues inform our 'Material Assessment' and thereby, informs our Sustainability Framework (Figure 14) and ultimately provides invaluable input into our overall Strategic Model (Figure 13). ATNS's Stakeholder Engagement Policy is available online at http://www.atns.co.za/annual-reports.

More detail relating to our stakeholder engagement and management practices is available on page 120 and 121 of this report in the section on Social and Relationship capital.

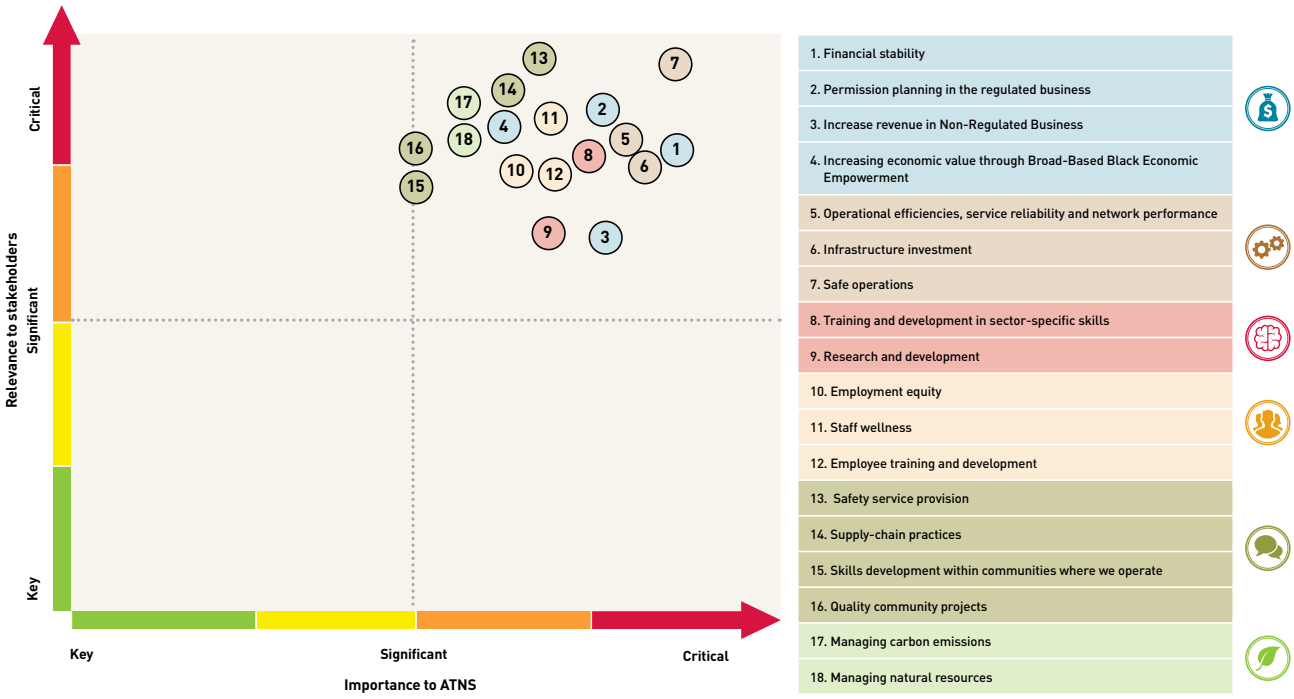
## Key stakeholders

ATNS's key stakeholders are as follows:

- International Civil Aviation Organisation (ICAO)
- South African Air Force (SAAF)
- South African Civil Aviation Authority (SACAA)
- International Air Transport Association (IATA)
- Airlines Association of South Africa (AASA)
- Board of Airline Representatives of South Africa
- National Department of Transport (DoT)
- South African Weather Services (SAWS)
- Economic Regulator
- ATNS staff
- Continental ANSPs
- Media
- CANSO
- Solidarity Trade Union
- Schools, students and Educational institutions (Universities)
- Job seekers
- Regional aerodrome owners
- CAASA
- Strategic partners, e.g., ANSPs outside the continent and selected supply chain entities

Figure 11 provides an overview of stakeholder priorities in terms of material issues whilst prioritising these issues in terms of ATNS' strategic and operational imperatives. It is important to state that ATNS views the business's long-term commercial wellbeing and its stakeholders' interests as mutually inclusive.

FIGURE 11: STAKEHOLDER PRIORITISATION OF MATERIAL ISSUES



# 7. CREATING SUSTAINABLE VALUE

## FIGURE 12: ATNS'S VALUE CREATION MODEL

### Inputs

**Financial capital**
- Cash generated from operations: R426 million.
- Turnover: R1,412 billion.
- Net profit: R284 million.
- % Total B-BBEE procurement spend: R381 million.

**Manufactured Capital**
- Communication systems.
- Navigation systems.
- Surveillance systems.
- Display (Air Traffic Management) systems.
- Simulator and systems (training and licencing).

**Intellectual Capital**
- Information knowledge management.
- Patents, trademarks and copyrights.
- Licencing.
- Sector-specific training through the ATA.
- Leadership capability in Africa ATM sector.
- ATNS brand and reputation.
- Safety management system.

**Human Capital**
- 928 permanent skilled and motivated employees.
- 69,56% Employment Equity representation.
- 44,05% Female representation.
- Bursars and learners: 80

**Social and Relationship Capital**
- Trust from customers and the general public to provide safe skies.
- Constructive relationships with Stakeholders.
- Membership to industry bodies and trade associations.
- Institutional alliances promoting training and education (e.g. WITS, University of Pretoria and University of Johannesburg).

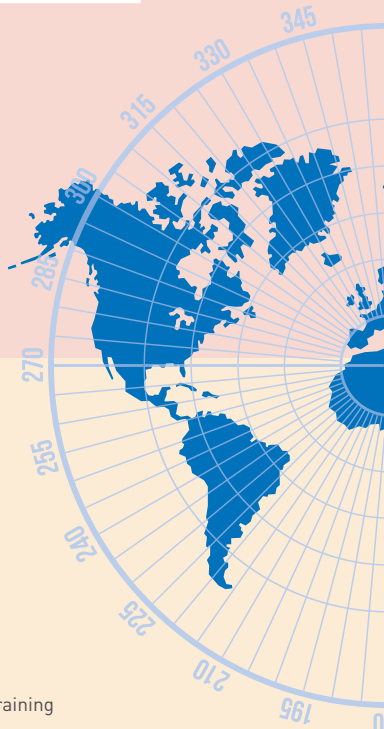
**Natural Capital**
- South African sovereign and delegated airspace.
- Natural and non-renewable resources for consumption:
  - Electricity.
  - Fuel.
  - Water.

### Activities

**Financial capital**
- Sound financial management.
- Capital investment strategy.
- 10-Year Business planning process.
- Core programmes to increase revenue in the regulated and non-regulated business.

**Manufactured Capital**
- Infrastructure acquisition and management.
- Network performance monitoring and management.
- Management of infrastructure reliability
- Air traffic movement/ management.
- Capital commitments towards infrastructure development.
- Performance-based navigation roadmap.

**Intellectual Capital**
- Information knowledge management.
- R&D around operational concepts and safety performance.
- Licensing patents, trademarks and copyrights.
- Monthly and quarterly reporting.
- Third party ATM and ATC training.




**Human Capital**
- Human capital management strategy implementation.
- Employment equity planning.
- Environmental and sustainability training for employees.
- Safety management programmes.
- Continuation training and
- Technical and vocational training of personnel.

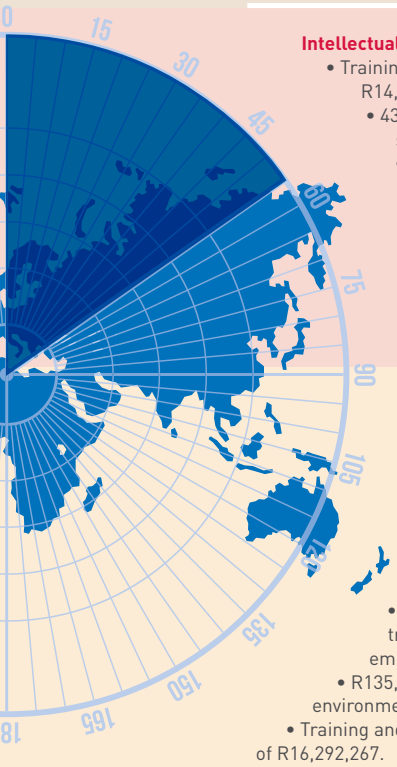
**Social and Relationship Capital**
- ATNS brand and reputation management activities.
- Road-shows.
- Industry safety workshops
- Stakeholder management strategy
- CANSO programmes and initiatives
- Supplier and enterprise development programmes
- Running of ATS Bursar, Engineering and Learnership programmes.

**Natural Capital**
- Fuel management strategy
- Water management activities and programmes
- Sustainability management framework.
- Environmental compliance practices.
- Investment in environmental training: R506,610

## Outputs

### Financial capital
- Cash generated from operations: R448 million.
- Turnover: R1,509 billion.
- Net profit: R243 million.
- % Total B-BBEE procurement spend: R381 million.
- Tariff revenue of R1,3 billion.

### Manufactured Capital
- Cumulative traffic movements: 324 445.
- Global Airspace cover: 10%.
- Infrastructure investment amounting to R230 million, with an additional commitment of R491 million.
- SADC VSAT II – Operation of the satellite communication networks: 98,5% availability. NAFISAT – Operation of the satellite communication networks: 98,5% availability.




### Intellectual Capital
- Training to third parties: R14,4 million.
- 438 ATS and technical staff trained.
- Innovations around satellite-based surveillance.
- Innovations around remote service provision.
- Innovations around procedural design.

### Human Capital
- 1,076 permanent skilled and motivated employees.
- 44,05% Female representation company-wide.
- 66,67% Employment Equity
- Delivery of environmental training to 50% of ATNS employees.
- R135,320.63 spent on environmental training
- Training and development to the value of R16,292,267.

### Social and Relationship Capital
- 74 Bursars and learners trained.
- 6 Engineering Learners and 10 Engineering graduates in learnership programmes.
- CSI projects to the value of R1,426,576.
- Align to ICAO Aviation System Block Upgrades (ASBU).
- Civil Air Navigation Organisation (CANSO).
- The Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE) initiative.

### Natural Capital
- Overall electricity usage: 20,154,721.16 kWh.
- Total Scope 1 emissions: 247.24 tonnes $CO_2e$
- Total Scope 2 emissions: 20,759.36 tonnes $CO_2e$
- Total Scope 3 emissions: 3,205.2 tonnes $CO_2e$
- Total fuel usage: 95 965 litres

## Outcomes

### Financial capital
- Maintaining long-term financial sustainability by optimising revenue in ATNS's regulated and non-regulated businesses.
- Protecting South Africa's economic interests and trade, whilst creating employment opportunities for South Africans.
- Creating economic value for the country.

### Manufactured Capital
- Deploying and using leading technologies.
- Creating infrastructure value for the South African ATM sector.
- Exerting more influence and market confidence in our abilities.
- Improving air traffic safety in Africa.
- Enhanced operational efficiency.
- Delivering efficient and reliable air traffic management services over 10% of global airspace.

### Intellectual Capital
- Enhancing skills and building competencies.
- Contributing to a pool of engineering skills in the Company and Country.

### Human Capital
- Maintaining a representative workforce.
- Embedding a culture of sustainability.
- Promoting an organisational culture that entrenches safety values.
- Enhancing skills and building competencies.

### Social and Relationship Capital
- Delivery of socio-economic value: Community development.
- Collaborative stakeholder relationships.

### Natural Capital
- Improved management of $CO_2$ emissions.
- Sound management of natural resources.
- Embedding a culture of sustainability.

## How ATNS defines value

ATNS defines "value" as the Company's ability to create and preserve relative economic, social and natural worth in terms of the six capitals to meet – and exceed - stakeholder expectations. This includes: financial capital and economic value, manufactured capital and infrastructure value, intellectual capital value, human capital value, social and relationship capital value, and natural capital value.

The Company aims to create integrated and sustainable value by providing a single banner of service accountability to clients for air traffic management solutions and associated services, and to expand this service offering across South Africa's borders into the rest of Africa.

ATNS' value proposition is supported by:

- the creation of economic value for the country through its supply-chain practices;
- improved infrastructural systems through leading-edge technology;
- a commitment to safety compliance;
- the provision of training and career development for its people; and
- the ability to attract and retain sector-specific staff competencies and critical skills in global demand;
- the ability to foster reliable industry partnerships;
- a commitment to ethical business practices, environmental impact awareness and proactive corporate social responsibility.

## Strategic review

ATNS' strategy is based on the understanding that the aviation industry plays a major role in driving sustainable economic and social development throughout the world. In South Africa, the aviation sector comprises airlines, together with the airports, air navigation services and other essential grounds services that make up the air transport infrastructure. Globally, aviation has achieved high levels of macro-economic performance by serving different regions through clear cycles of investment and opportunity.

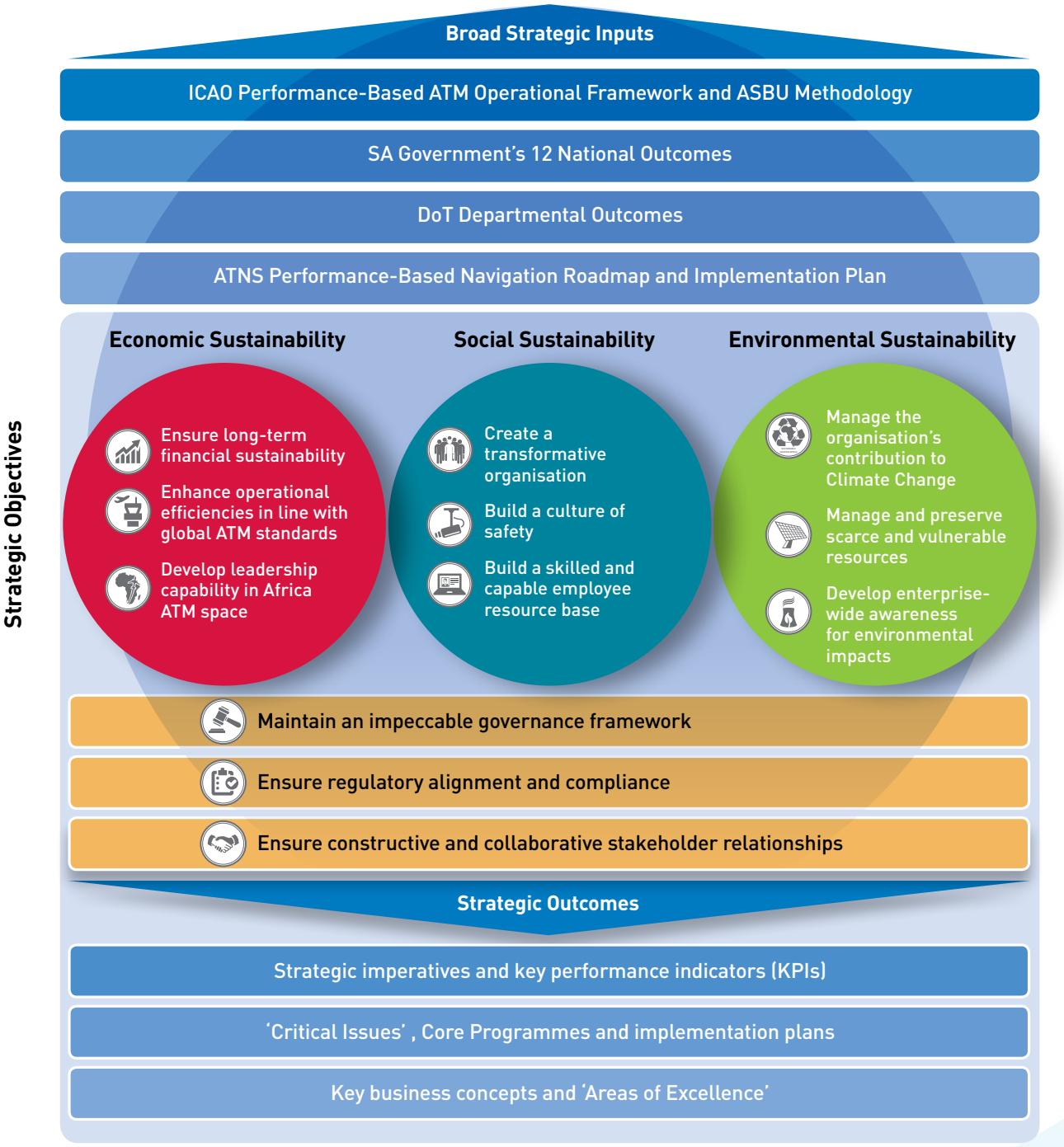
The ATNS strategy is influenced by and linked to a number of other industry planning initiatives, as well as the developmental prerogatives of the South African Government. Strategic delivery aims to meet the increasing demands of longer-term traffic growth and complexity. The strategy seeks to adopt increasingly flexible practices, more efficient operations and more cost-sensitive business processes to counter unpredictable events.

The ATNS strategic model demonstrates the Company's holistic approach to economic, social and environmental sustainability in that the three sustainability pillars serve as drivers of our strategic intent and operational momentum. The three strategic pillars, in turn, require that the Company ensures impeccable governance oversight, regulatory compliance, and alignment with the needs of our wider stakeholder communities.

The model shows the strategic inputs into the business, including (but not limited to) the ICAO performance-based ATM Operational Framework at a global level; the South African Government's national outcomes; the Department of Transport's departmental outcomes; and the ATNS performance-based Navigation Roadmap and Implementation Plan.

The Company's strategic objectives are further refined and directed into strategic imperatives, core programmes and key performance indicators (KPIs) to set specific performance targets and guide their practical achievement.

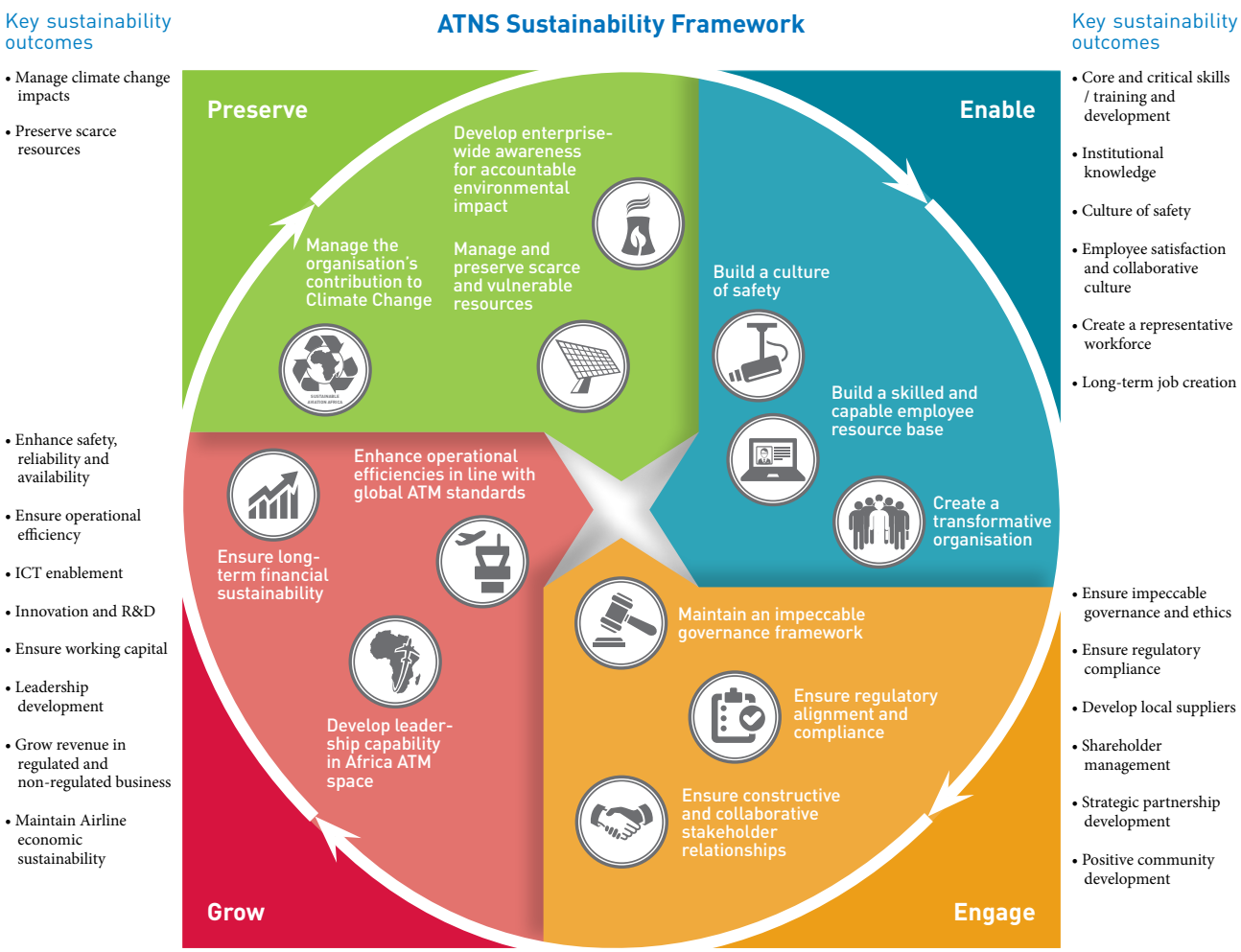
FIGURE 13: ATNS STRATEGIC MODEL



## Monitoring sustainability outcomes

ATNS's strategic economic, social and environmental performance outcomes are monitored through the Company's Sustainability Framework, which reflects the full spectrum of ATNS's key sustainability outcomes.

FIGURE 14: ATNS SUSTAINABILITY FRAMEWORK



## Linking material issues to strategy and material outcomes

Table 19 links the material issues addressed in this report to the Company's core strategic objectives and material outcomes according to the six capitals.

### TABLE 19: STRATEGIC IMPERATIVES LINKED TO MATERIAL ISSUES

| | Strategic objectives | Material issues | Material outcomes | |
|---|---|---|---|---|
| | Ensure long-term financial sustainability. | Financial stability. | • Maintaining long-term financial sustainability by optimising revenue in ATNS's regulated and non-regulated businesses.<br>• Protecting South Africa's economic interests and trade, whilst creating employment opportunities for South Africans.<br>• Creating economic value for the country. | |
| | | Permission planning in the regulated business. | | |
| | | Increasing revenue in the non-regulated business | | |
| | | Broad-Based Black Economic Empowerment | | |
| | Enhance operational efficiencies in line with global ATM standards. | Operational efficiencies, service reliability and network performance | • Enhancing operational efficiencies and service reliability.<br>• Deploying and using leading technologies.<br>• Enhancing operational safety performance.<br>• Exerting more influence and market confidence in our abilities.<br>• Improving air traffic safety in Africa.<br>• Enhancing sector competencies.<br>• Contributing to a pool of engineering skills.<br>• Ensuring safe skies. | |
| | | Infrastructure investment. | | |
| | Develop leadership capability in the Africa ATM space. | Safety service provision | | |
| | | Research and development. | | |
| | | Training and development in sector-specific skills | | |
| | Create a transformative organisation. | Employment equity | • Maintaining a representative workforce. | |
| | | | • Developing leadership capability and skills | |
| | Build a culture of safety. | Safety culture. | • Promoting an organisational culture that entrenches safety values. | |
| | | Staff wellness. | | |
| | Build a skilled and capable employee resource base. | Employee training and development. | • Enhancing skills and building competencies.<br>• Embedding a culture of sustainability. | |
| | Develop enterprise-wide awareness for environmental impacts. | | | |
| | Manage the organisation's contribution to Climate change. | Managing carbon emissions. | • Reducing CO2 emissions. | |
| | Manage and preserve scarce and vulnerable resources. | Managing natural resources:<br>• Electricity and fuel.<br>• Airspace quality.<br>• Biodiversity and protected habitats. | • Ensuring sound management of natural resources. | |
| **Strategic enablers** | | | | |
| | Ensure constructive and collaborative stakeholder relationships | Supply-chain practices | • Building positive stakeholder relationships to support. economic, social and environmental sustainability.<br>• Supporting economic growth through supplier development.<br>• Promoting socio-economic value: Community development. | |
| | | Skills development within communities where we operate | | |
| | | Quality community projects. | | |

# PERFORMANCE THROUGH THE CAPITALS

In this section, we report on our performance through the six capitals to demonstrate the Company's ability to create and preserve value for the business, its people, partners and customers; as well as for our Shareholder – as represented by the Minister of the Department of Transport – and for the country as a whole. Accordingly, we report on ATNS's 2015/16 performance in terms of its ability to create sustained economic, infrastructural, intellectual, social and natural value through the following capitals:


Financial capital


Manufactured capital


Intellectual capital


Human capital


Social and relationship capital


Natural capital

# Financial capital

## Creating financial and economic value

ATNS's fiscal accomplishment is indicative of the Company's economic sustainability. However, the Company aims to create broader financial and economic value to influence the wider South African economy. Our Shareholder mandate requires ATNS to act as a primary catalyst for economic growth and job creation in South Africa. In addition, the organisation has to deliver considerable economic outcomes to society.

ATNS has significant potential for encouraging economic growth for South Africa. In 2010 there were 66 routes per week connecting major airports in South Africa to urban agglomerations around the world. A total of 12 of these routes were connecting South Africa to cities of more than 10 million inhabitants, with an average of 1,5 outbound flights per day available to passengers. It is estimated that a 10% improvement in air connectivity relative to GDP would see a R1,5 billion per annum increase in long-run GDP for South Africa's economy. South Africa's integration into the global air transport network therefore is important for the continued growth of the country's economy.

Further, the aviation industry has a significant economic impact across some of the major African markets. In South Africa, the aviation industry supports 2,1% of South African GDP and 227,000 jobs or 1,7% of the South African workforce. If the sector's contribution to the tourism industry is included, these figures go up to 3,1% of South African GDP, creating 343,000 jobs, or 2,6% of the workforce. ATNS is one of the vehicles that the Department of Transport uses to fulfil its responsibility to create employment for the youth and for previously disadvantaged communities. However, jobs can only be created in a growing market and the best way for ATNS to be exposed to this growth is to expand into the AFI region.

### Material financial and economic outcomes

- Maintaining long-term financial sustainability by optimising revenue in ATNS's regulated and non-regulated businesses;
- Protecting South Africa's economic interests and trade, whilst creating employment opportunities for South Africans.
- Creating economic value for the country.

### Material issues

Our 2016 performance reporting prioritises the following material issues:

- Financial stability
- Permission planning in the regulated business
- Increasing revenue in the non-regulated business
- Increasing economic value through Broad-Based Black Economic Empowerment

### Approach to creating financial and economic value

ATNS's material aspects are addressed through the integration of several key enablers of economic sustainability, including:

- ATNS's 10-Year Business Plan and accompanying Financial Model.
- The ATNS International Programme to expand cross-border revenue through the non-regulated business.
- Alignment of tariffing and service standards in the regulated business.
- ATNS's B-BBEE strategy.
- Sound financial management.

## ATNS's Ten-Year Business Plan and Financial Model

The air traffic management industry in South Africa is strongly linked to growth in air traffic movements and overall economic growth. The Company projects its revenue based on the expected air traffic movement growth. The air traffic movement has a high correlation to Gross Domestic Product (GDP) at approximately 80%. There is a time lag between a change on GDP and the impact on air traffic movements of between 12 and 18 months.

Due to limited growth opportunities in South Africa and potential opportunities identified in the Africa Indian Ocean (AFI) Region, ATNS is implementing a focused African expansion strategy, enabled by a 10-year 'bankable plan'.

The key objective is to develop a plan that would support the vision of a burgeoning air traffic management market on the African continent, and ATNS's ability to expand its existing commercial business to build a commercially-viable international platform.

ATNS's 10-year plan addresses key strategic and stakeholder concerns, and advocates that in the short to medium term, resources and non-regulated business costs and revenues should be ring-fenced from the current regulated business to provide a clearer view of viability; and to identify the potential risks and opportunities in this area.

ATNS's ring-fenced African business aims to roll out its most agile and profitable product and service offerings first – including billing and collection, as well as training and technical services – before making capital-intensive investments. Further, ATNS will bundle its products and services to target, where possible, some countries more so than others based on past relationships and strategic opportunities, thereby improving operating efficiencies, and generating more repeat business through longer-term service contracts and proactive sales to grow its non-regulatory business.

## Expanding revenue from ATNS's non-regulated business through the International Programme

The ATNS International Programme is a long-term strategy to continue the expansion into the region through a subsidiary vehicle of ATNS known as "ATNS International". ATNS International will enable ATNS to take a more aggressive and agile stance in the non-regulated business market without posing undue risks to its regulated market and shareholder. It will also enable ATNS to enter into joint ventures and partnerships with external suppliers so that the company can take advantage of more valuable market opportunities and extend its influence and reach.

## Permission process – regulating service standards

Economic regulation and the regulation of service standards are two sides of the same coin and impact each other. There is strong correlation between the information presented in the service standards reporting and the actual Permission application. The service standards reporting has to balance quantitative and qualitative results.

The Regulating Committee (RC) – sanctioned by the ATNS Act No.45 of 1993 – prescribes service standards in accordance with internationally accepted and recommended practices. This process of monitoring service standards is a necessary counterbalance to economic regulation.

Through the monitoring of service standards, the RC determines whether ATNS's assets are either sufficient, excessive or insufficient; whether they manage existing infrastructure effectively; and whether the users have a positive service experience.

Through Consumer Price Index (CPI) – X price-cap regulation, the RC deters Companies from implementing excessive charge increases. Service standards are monitored to ensure that this price cap translates into increased efficiency, and not a deterioration of service levels. At the end of a

Permission process (or sooner in exceptional circumstances) the RC takes a view on the realised and desired standards, and reflects this in future values of the "X" Factor. In doing so, it creates a continuous interaction between economic regulation and service standard regulation.

## B-BBEE Strategy

ATNS acknowledges that radical economic transformation is crucial if South Africa is to have a meaningful impact in the global arena while promoting socio-economic equity. ATNS's B-BBEE strategy is an important driver in achieving the Company's goals towards economic and social sustainability. Certain initiatives have been identified to improve ATNS's B-BBEE contribution level, including the development of a B-BBEE Strategy in accordance with the B-BBEE Codes of Good Practice that will guide the organisation towards an improved rating. The Codes of Good Practice were implemented during the 2014/15 financial year with the intention of achieving a Level 3 rating by 2015/16. The Company has achieved and exceeded this goal by achieving a Level 2 rating .

The ATNS B-BBEE Strategy aligns with the South African Governments' transformation initiatives of job creation, poverty alleviation and skills development. The associated B-BBEE action plan highlights the need to:

- Enhance employment equity at senior management levels;
- Increase the number of black learnerships for people living with disabilities;
- Promote the use of B-BBEE-empowered suppliers to achieve the 70% compliance target;
- Develop and implement a comprehensive enterprise development (ED) programme focusing on the training of current Exempted Micro Enterprises (EMEs) and Qualifying Small Enterprises (QSEs), providing goods and services across the ATNS value chain; and
- Develop socio-economic development (SED) programmes and partnering frameworks.

The strategy addresses all six elements of the generic B-BBEE scorecard, namely: management control, employment equity, skills development, preferential procurement, enterprise development and socio-economic development.

### Local supplier development

ATNS's Enterprise and Supplier Development strategy supports and develops emerging black-owned suppliers in the aviation industry. Due to the small number of black-owned suppliers in this sector, ATNS aims to identify engineering suppliers to participate more meaningfully in the aviation industry going forward. Accordingly, ATNS has designed an Incubation Programme to identify sector gaps where suppliers' services and skills could be deployed; and to develop the requisite interventions to fill these gaps by equipping identified suppliers with the relevant skills to compete or partner with multinationals in the aviation space. In this way, local black suppliers can gain experience during the rollout of the project to support both the installation and longer-term maintenance of infrastructure equipment over the project lifecycle.

By leveraging procurement expenditure, we aim to increase locally-developed content by supporting and developing local suppliers. In doing so, the Company complies with the Department of Trade and Industry's (DTI's) Codes of Good Practice and benefits by:

- Increasing its security of service supply.
- Reducing the costs of goods and services through increased supplier competitiveness and/or reduced logistics costs.
- Benefiting from local supply rather than imports through:
  - Reduced exposure to foreign currency volatility;
  - Lower stock level requirements;
  - Improved responsiveness;
  - Simplified communication; and
  - Reduced delivery times.

## Financial management

### Sources of funding

ATNS raises funds from the market in order to finance its capital expenditure programme. The Company's borrowing plan is driven by its planned capital expenditure cash flow, gearing and current ratio. Maximum gearing limits have been evaluated in terms of the following:

- The Company's asset base;
- Sustainability of the Company's profitability;
- Industry norm; and
- The need for spare borrowing capacity to take advantage of potential new business opportunities which will increase the Company's non-regulated revenue.

In this regard, ATNS has concluded that the gearing levels (expressed as the percentage of debt capital) of 60% is acceptable without placing undue risk to the Company.

In terms of Section 5(3) of the ATNS Act and Section 66 of the PFMA, the Company has to obtain approval from both the Minister of Transport and the Minister of Finance to borrow funds.

### Profit management

In terms of the current economic regulations under which ATNS operates, there is always a risk of profits generated by the company being clawed back by the Regulator. The claw back is applied retrospectively making it risky to distribute profits generated for both current and past financial periods. It is on that basis that the Company opts to retain distributable profits for re-investment and to maintain its financial sustainability for a foreseeable period.

### Investment and liquidity requirements

The major share of ATNS's revenue is in the form of monthly billings for air traffic control services rendered. The remaining 'other revenue' takes the form of less periodic income. Expenditures are mostly monthly, except for CAPEX of which the cash outflow depends on the requirements of specific projects. ATNS aims to maintain a minimum cash balance of two months' operating expenditure plus capital loan payables.

### Asset and liquidity management

ATNS has a 20-year capital expenditure plan, which takes consideration of legislation, capacity requirements, efficiency, technological changes and end-of-life replacements of infrastructure. The Permission application includes a detailed capital expenditure plan, which is discussed with users. The Board approves the Permission application.

The capital expenditure plan is reviewed annually and approved by the Board. Capital expenditure within delegated limits is presented to the Procurement Executive Committee (PEC) for approval, or the committee recommends for approval from the Board Procurement Committee via the Executive Committee in terms of the Company's mandate matrix.

All fixed assets are capitalised and included in the fixed assets register once the asset is ready for use. All fixed asset disposals are also presented to the PEC for approval or recommendation for approval with the Board Procurement Committee via the Executive Committee in terms of the Company's mandate matrix.

In terms of Section 9 of the ATNS Act, any land expropriated by the State and transferred to the Company cannot be sold without the consent of the Minister of Transport as Shareholder.

### Billing process

ATNS has implemented a system, along with the requisite policies and procedures, to ensure effective and timely billing of all revenues due to ATNS. The Company issues pro-forma invoices to its major clients prior to issuing the final account for the month to minimise queries which may result in late payments. ATNS's major clients have to provide guarantees or deposits equivalent to their average two months' billing to reduce the Company's risk in the event the debtor ceases operations.

Most VSAT and NAFISAT user clients are members of IATA and pay for the services rendered via the IATA clearing house. Approximately 60% of VSAT and NAFISAT revenue is generated by IATA members.

This reduces the risk of recovering outstanding income.

## Cash management

The Company's cash flow is monitored on a daily basis to ensure that it has or will have sufficient funds to cover its operational expenses and loan obligations. Bank reconciliations are performed, reviewed and approved monthly.

## Liability management

**Trade and Other Trade Payables**

Purchases are approved in accordance with the ATNS mandate matrix. Before any payment is made to the supplier, reconciliation is done between the supplier's statement and the ATNS records. Creditor reconciliation is approved by the Company's accountants. All products and services received by ATNS are receipted on the financial system, but invoice(s) that have not been received by the Creditors department are followed up monthly.

**Interest-bearing Loans and Borrowings**

Interest-bearing loans and borrowings are reconciled on a monthly basis to the relevant bank instalment sale agreements.

**Hedging policy**

The Company will, where necessary, hedge against foreign currency fluctuation by taking forward cover for the following:

- Capital expenditure.
- Electronic maintenance support contracts.
- Computer software licenses.

## Economic value generated during 2015/16

Tables 20 and 21 provide a consolidated view of the Company's financial performance in the context of ATNS's broader economic sustainability from the perspective of economic value generated and distributed during the year.

### TABLE 20: ECONOMIC VALUE GENERATED DURING 2015/16

| Economic value generated | 2015/16 R | 2014/15 R | 2013/14 R | Progress |
|---|---|---|---|---|
| Total revenue | 1 563 269 971 | 1 459 580 665 | 1 326 396 910 | ↑ |
| Tariff revenue | 1 342 130 952 | 1 267 728 253 | 1 159 326 506 | ↑ |
| Other revenue | 166 500 387 | 191 852 412 | 133 386 419 | ↑ |
| Total assets | 2 436 671 926 | 2 186 418 050 | 1 863 431 085 | ↑ |
| Total equity | 2 152 961 487 | 1 909 819 480 | 1 626 356 259 | ↑ |
| Cash generated from operations | 444 768 568 | 426 593 291 | 389 018 246 | ↑ |
| **Total borrowings as at 31 March 2016** | **0** | **0** | **0** | – |

### TABLE 21: ECONOMIC VALUE DISTRIBUTED DURING 2015/16

| Economic value generated | 2015/16 R | 2014/15 R | 2013/14 R | Progress |
|---|---|---|---|---|
| **Value added** | | | | |
| Total operating cost | 1 254 751 411 | 1 077 806 351 | 981 008 522 | ↑ |
| **Distribution of wealth** | | | | |
| Employee wages and benefits | 754 329 323 | 686 122 385 | 627 412 116 | ↑ |
| Payments to providers of capital | 0 | 0 | 0 | – |
| Payments to the Shareholder | 0 | 0 | 0 | – |
| Payments to Government as income tax (including deferred tax) | 105 441 229 | 101 161 769 | 94 606 801 | ↑ |

## Performance against targets

| Material issue: Financial stability | |
|---|---|
| **Why it matters** | **Key aspects of our management approach** |
| ATNS's revenue growth and financial sustainability relies on new product/ market development. This includes the successful implementation of the Company's African expansion strategy. Economic regulation by the South African Regulating Committee restricts monopoly abuse within the South African market by strictly applying tariff adjustments. Further, the maturity of ATNS's national or domestic operations will create challenges for the business to generate new customers in South Africa. It is therefore imperative for ATNS to secure future growth and revenue by broadening its service offerings to other markets, including the wider Africa market. | • The ATNS 10-Year Business Plan.<br>• Africa expansion strategy, including the ATNS International programme and Ring-Fencing Project.<br>• The ATNS ATM Roadmap.<br>• The Africa Indian Ocean (AFI) Strategy Project.<br>• Capital Investment Strategy.<br>• Sound financial management. |

| Targets for 2015/16 | What we achieved in 2016 | Our focus for 2017 |
|---|---|---|
| D/E[1] = 10-45%.<br>C/A[2] = 2.5:1.<br>ROCE[3] = 12.6%. | D/E = 0%.<br>C/A: 6.3:1.<br>ROCE: 24,1%. | D/E = 10-45%.<br>C/A = 2.5:1.<br>ROCE = 12.6%. |

[1] Debt to equity ratio [2] Cash to asset ratio [3] Return on capital employed

**Highlights**

- Revenue from operations: R1,5 billion against a budget of R1,3 billion.
- Year-to-date expenditure: R1,208 billion against a budget of R1,85 billion.

| Material issue: Permission planning in the regulated business | |
|---|---|
| **Why it matters** | **Key aspects of our management approach:** |
| The permission cycle informs the company's specified tariffs as well as service standard requirements for the regulated business. ATNS actively collaborates with the regulating committee (RC) to ensure favourable and sustainable outcomes for the industry. The RC is required to balance the interests of the company with the interests of its clients, which includes promoting the safe, efficient, economic and profitable operation of the company. This encourages timely investment and ensures that ATNS is able to finance its obligations and has a reasonable prospect of earning a commercial return. | • Permission planning and application process.<br>• Active engagement with the regulating committee.<br>• Sound financial management.<br>• Alignment of tariffing and service standards in the regulated business. |

**Highlights**

- Regulating Committee issued a zero percent tariff increase for the period 01 April 2015 to 31 March 2016.
- Tariff revenue was R1,3 billion (11,1%) above budget.
- The ACSA and ATNS's Permission application is under review.

| Material issue: Increasing revenue in the non-regulated business | |
|---|---|
| **Why it matters** | **Key aspects of our management approach:** |
| The largest anticipated contributor to the growth in aircraft movements between 2015 and 2024 will be within the Africa-Europe trade region, followed by Intra-Africa. From 2015 to 2024 the average annual compound aircraft movement growth in Africa-Europe and Intra-Africa will be 4,5% and 7,5% respectively. This growth is primarily due to anticipated increases in trade in Africa. As a fully commercialised entity operating in the African market, ATNS could also be a beneficiary of the increase in trade flows between BRICS nations and the rest of the African continent. | • Permission planning and application process.<br>• Active engagement with the regulating committee.<br>• Sound financial management. |
| **Highlights** | |
| • Non-regulated revenue exceeded budget by R12,7 million (17,2%). | |

| Material issue: Increase economic value through Broad-Based Black Economic Empowerment | | |
|---|---|---|
| **Why it matters** | | **Key aspects of our management approach:** |
| As a State-Owned Company, ATNS has a key responsibility as a national agent of commerce to strengthen the economic position of South Africa. Through our B-BBEE practices, we have the opportunity to shape the future of the South African air traffic management sector. Further, local supplier development is a national imperative and an important enabler of economic sustainability. ATNS intends to address the historic imbalances that previously excluded large sections of the population from meaningful participation in the economy.<br><br>See additional performance information relating to ATNS's supplier relations and supply-chain management in the section on Social and Relationship Capital on page 125. | | • Implement enterprise and Supplier Development programmes and appoint a resource to manage the programme. |
| **Target 2015/16** | **What we achieved in 2016** | **Our focus for 2017** |
| B-BBEE Rating: Level 3. | B-BBEE Rating: Level 2. | B-BBEE level: 2. |
| **Highlights** | | |
| B-BBEE Preferential Procurement point score: 30/30.<br>B-BBEE Enterprise and Supplier Development point score: 12.11/15.<br>B-BBEE Socioeconomic Development point score: 2.81/5. | | |

## Performance commentary

### Air traffic movements

Air traffic movements for the 2015/16 year increased by 2% from 314,236 in the prior year to 324,445.

TABLE 22: ALL AIR TRAFFIC MOVEMENTS INCLUDING ARRIVAL, DEPARTURES AND TRAINING

| | April 2015 | May 2015 | June 2015 | July 2015 | August 2015 | September 2015 |
|---|---|---|---|---|---|---|
| Movements 2015 | 91424 | 103256 | 95296 | 93808 | 95903 | 88951 |
| Cumulative movements | 358 663 | 461 919 | 557 215 | 651 023 | 746 926 | 835 877 |
| | | | | | | |
| | **October 2015** | **November 2015** | **December 2015** | **January 2016** | **February 2016** | **March 2016** |
| Movements 2015/16 | 97707 | 90519 | 79554 | 82177 | 87557 | 91985 |
| Cumulative movements | 933 584 | 1 024 103 | 1 103 657 | 1 185 834 | 1 273 391 | 1 365 376 |

### Permission planning

The 2015/16 – 2019/20 Permission is yet to be issued. ATNS continues to operate on the zero tariff permission that was promulgated in 1st April 2015. All the 5 (five) years of zero tariff increase will be amended and gazetted when the new Permission application process has been concluded. The gazetted tariff will be implemented pro-rata taking into account the delays as a result of the postponement.

### Broad-Based Black Economic Empowerment

ATNS achieved a B-BBEE qualification score of 87.51, equating to a Level 2 B-BBEE rating.

TABLE 23: ATNS B-BBEE CONTRIBUTION FOR THE 2015/16 FINANCIAL YEAR (ECONOMIC DEVELOPMENT)

| B-BBEE element | Target 2015/16 | Actual 2015/16 |
|---|---|---|
| Management control | 10 | 7.50 |
| Employment equity | 15 | 13.09 |
| Skills Development | 25 | 22.00 |
| Enterprise Development and Supplier Development | 15 | 12.11 |
| Preferential procurement | 30 | 30.00 |
| Socio-Economic Development | 5,00 | 2.81 |
| **Total points** | 100 | 87.51 |
| **Overall** | **100** | **87.51** |

### Local supplier development

During the year, ATNS's procurement practices were verified against the old B-BBEE Codes and scored 12.11 against a weighting of 15.00 on Enterprise Development. The Company obtained a Level 2 B-BBEE Contributor status against and internal target of Level 3.

ATNS has already aligned its internal B-BBEE assessment with the New B-BBEE Codes as it will be verified against the new code at the end of the next financial year.

TABLE 24: COMPARATIVE HISTORICAL VIEW OF B-BBEE PROCUREMENT SPEND

| Supplier category | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|
| Total B-BBEE spend of total measurable procurement spend | R256,110,494 | R367,014,361 | R441,724,346.19 |
| % B-BBEE spend of total measurable procurement spend | 86% | 79% | 124,85% |
| % Spend: Black-owned enterprises | 0,19% | 21% | 54,84% |
| % Spend: Black women-owned enterprises | 0,02% | 5% | 33,21% |
| % Spend: Exempted micro-enterprises | 6,50% | 4,32% | 18,69% |
| % Spend: Qualifying small enterprises | Not captured | Not captured | 27,65% |

## Abridged Financial Statements

The local airline industry was impacted by pervasive economic challenges, characterised by a weakening Rand and inflationary pressure. In addition, the South African Reserve Bank raised interest rates during the year, negatively impacting consumer spending due to reduced disposable income. The tough market conditions resulted in some airlines discontinuing operations.

Added to these conditions, the Company did not increase tariffs (zero percent increase). However, a 2% increase in air traffic movements helped to mitigate the negative impact of the zero tariff increase.

ATNS achieved revenue of R1,5 billion for the year, exceeding budget by 12,0%.

### Turnover

Due to the 2% increase in air traffic movement – and a positive beneficial change in aircraft weight mix – turnover increased by 6,9% to R1,509 billion (2015: R1,412 billion). Further, the weakening Rand contributed positively to turnover received from our VSAT networks, for which services are charged in US dollars.

### Operating costs

Operating costs increased by 16,3% to R1,254 billion (2015: R1,078 billion) mainly due to an increase in staff costs, as well as provision for bad debts. In addition, the impact of fluctuating foreign exchange rates on our administration and contract maintenance costs further contributed to operating cost increases.

This resulted in operating profit margin decreasing by 20% (2015: 24%), as well as the Return on Assets (ROA) reducing by3% to 10% (2015: 13%). Despite the decrease in operating profits, our cash flow margins remained constant at 30% (2015: 30%).

The Company's statements of abridged profit and loss, and financial position at the reporting period are represented below:

## ABRIDGED STATEMENT OF PROFIT AND LOSS AND OTHER COMPREHENSIVE INCOME AS AT 31 MARCH 2016

| | 2016 | 2015 |
|---|---|---|
| Turnover | 1,508,631,339 | 1,411,979,786 |
| Operating profit | 294,656,148 | 337,921,663 |
| Profit before tax | 348,583,236 | 384,624,990 |
| Income tax expense | (105,441,229) | (101,161,769) |
| **Profit for the year** | **243,142,007** | **283,463,221** |

## ABRIDGED STATEMENT OF FINANCIAL POSITION AS AT 31 MARCH 2016

| | 2016 | 2015 |
|---|---|---|
| **Assets** | | |
| Non-current assets | 972,490,771 | 856,437,006 |
| Current assets | 1,464,181,155 | 1,329,981,044 |
| Total assets | 2,436,671,926 | 2,186,418,050 |
| **Equity and liabilities** | | |
| Total equity | 2,152,961,487 | 1,909,819,480 |
| Non-current liabilities | 52,510,815 | 72,954,475 |
| Current liabilities | 231,199,624 | 203,644,095 |
| **Total equity and liabilities** | **2,436,671,926** | **2,186,418,050** |

### Cash flow

The Company committed R491 million, including projects from prior years.

The Company has the capacity to fund its capital expenditure through cash generated from operations and a borrowing facility of R650 million.

Net movement on cash and cash equivalents are depicted below:

## ABRIDGED STATEMENT OF CASH FLOW AS AT 31 MARCH 2016

| | 2016 | 2015 |
|---|---|---|
| Net cash flow from operating activities | 358,049,377 | 380,720,161 |
| Net cash flow from investing activities | (229,734,836) | (137,145,857) |
| Net cash flow from financing activities | – | – |
| **Net increase in cash and cash equivalents** | **128,314,541** | **243,574,304** |

# Manufactured capital

## Creating infrastructural value

ATNS is responsible for providing and maintaining reliable airspace infrastructure in South Africa, further enabling the delivery of air traffic services in a safe and efficient manner.

In line with ATNS' Shareholder Mandate to deliver safe skies and customer-centric services, leading-edge technology is a central service enabler to create advanced infrastructural value for the Company and the country's air traffic navigation sector. To this end, ATNS invests in the acquisition of new and pioneering air traffic management technology to manage and control the national airspace system.

ATNS's advanced Technology Investment Initiative is one of the largest single CAPEX investments that the Company has embarked upon in the last decade and is steered under the programme 'Collaborative ATNS Air Traffic System' (CAATS). Through this programme, ATNS will enter a new era of operational technology advancement for the benefit of the ATM community.

South Africa's aviation infrastructure is considered to be one of the best in the world, contributing to the country's aviation safety record.

As the air traffic management and safety industry becomes more consolidated, ATNS needs to increase its market share in Africa so as to remain one of the ten global ANSPs that IATA envisions will constitute the global air traffic safety market in 2050. ATNS has positioned itself well towards becoming one of these 10 ANSPs by taking a more proactive approach to providing products and services to more countries and partnering with global suppliers. ATNS is playing a leading role on the continent by hosting the Civil Air Navigation Organization (CANSO) regional office and collaborating with other entities regionally and globally in its visibly active involvement in ICAO, IATA, and other industry networks and associations.

Through its manufactured capital and infrastructural value creation ATNS supports the National Developmental Plan (NDP) by facilitating the achievement the following DoT outcomes:

- A transport sector that is safe.
- An increased contribution to job creation.
- An efficient and integrated transport infrastructure network for social and economic development.
- An increased contribution of transport to environmental sustainability.

### Material infrastructural outcomes

- Enhancing operational efficiencies and service reliability.
- Deploying and use of leading-edge technologies.
- Enhancing operational safety performance.

### Material issues

Our 2016 performance reporting prioritises the following material issues:

- Operational efficiencies, service reliability and network performance.
- Infrastructure investment.

## Approach to creating infrastructural value

ATNS's material aspects are addressed through the integration of several key enablers of infrastructural value, including:

- The Company's Capital Investment Strategy.
- Integrated planning through the ATNS ATM Roadmap.
- ATNS information technology strategy.
- Remote service provision.
- Communication, navigation and surveillance infrastructure provision and maintenance.

### ATNS's Capital Investment Strategy

ATNS's Infrastructure Investment Strategy and Capital Expenditure Plans are key enablers for creating infrastructural value for the Company and the country; and specifically, to continually enhance operational efficiencies and service reliability. ATNS's infrastructure development is informed by regulatory requirements at a global level, new enabling technologies and the need to address the specific requirements of the air traffic management (ATM) community.

With current economic challenges – and airlines facing even greater pressures on financial performance – ATNS has adopted the approach of developing business cases for Capital Expenditure projects. The business case approach has been a useful tool to prioritise projects in line with industry requirements.

### The ATNS ATM Roadmap – ASBU

Continued traffic growth, together with the drive for efficiency improvements and the availability of new technology, is driving change in the operating environment. To keep pace with these developments, change is needed in the governance and institutional framework for air navigation service provision. Accordingly, ATNS has developed the ATM Roadmap to support the Company's strategic plan for implementing the air traffic management/ communication, navigation and surveillance (ATM/ CNS) systems required to meet future user expectations. The roadmap provides more detailed guidance for the content of implementation plans, and consequently, provides motivation for permission requests and a foundation for budgets. The ATM Roadmap also serves as input into the ATNS Integrated Technology Plan.

### IT strategy implementation

A critical component of ATNS's infrastructural value creation aspirations is the organisations IT strategy. There have been many successes in the advancement of IT at ATNS from 2011 to date – based on the 2010 IT Strategy. Notable achievements to-date are as follows:

- Establishment of the Business Process Centre of Excellence;
- Mapping of the AS-IS Business Processes at ATNS;
- Establishment of formal knowledge management initiatives at ATNS;

ATNS has implemented a plan to manage end-to-end internal and external client experiences in order to ensure that catalogued IT services are provided as expected by clients and that these services are being used optimally.

The IT strategy is spearheaded by fast maturing business process management and knowledge management as well as online presence management and mobile applications. The Company aims to continually improve governance support and address some inherent weaknesses that have been identified in the department.

IT is intended to enable business by:

- Providing information to business leaders for decision-making;
- Ensuring that the consumption of IT is simplified for business;
- Providing platforms for business to operate in a more dynamic and agile manner;
- Ensuring that IT assesses and takes advantage of advances in technology that will benefit the business;
- Utilising IT skills, systems and business information to develop and enhance ATNS's product offerings; and
- Ensuring that IT systems are secure so as to protect the integrity of the data in the organisation.

The Organization recognizes the importance of ensuring adequate support is provided from various units within the organisation, especially with respect to highly-skilled resources and change management initiatives.

### Remote service provision

The concept of consolidating approach control services for various airports terminal areas – achieved through remote service provision where practical, safe and cost effective - supports the ongoing need for cost reduction and control (especially reduction in human resource requirements); which is vital for supporting our growth objectives as well as the industry at large, particularly in light of the trying economic climate.

ATS requirements in certain airports may be required even though traffic volumes are low and insufficient to generate revenue to support airport operations. In recognition of such challenges ATNS has embarked on the selected use of remote aerodrome control services using the latest technology. The remote tower technology enables aerodrome control services to be provided without being stationed at an airport. Remote tower services have the following benefits:

- Improved levels of air traffic service at a lower cost;
- Improved situational awareness in low-visibility conditions;
- A centralised, more streamlined service for multiple remote airfields;
- Alternatives to new construction due to line-of-sight limitations;
- Reduced capital expenditure requirements on new towers; and
- Greater staffing flexibility.

ATNS is responsible for the provision of Air Traffic Services (ATS) in South Africa as promulgated by the ATNS Act. The primary objective in the provision of ATS is to ensure safety and efficiency of flights and continuous improvement thereof. This objective forms part of our strategic imperatives related to satisfying the reasonable expectations of the aviation community.

A quality air transport sector contributes positively to the economic prosperity of nations. By facilitating tourism and trade, air transport contributes to job creation, improving living standards and alleviating poverty.

### Managing Communication, Navigation and Surveillance (CNS) infrastructure

ATNS provides ATS at the nine statutory ACSA airports as well as contractual air traffic control services at 12 regional airports. ATS sectors are currently configured as follows:

- Nine ACC sectors with an additional one planned over the next five years depending on traffic growth. The remoting and consolidation of en-route control services enable a reduction in the number of en-route control sectors and the related resources requirement;
- Ten approach radar sectors with one additional sector planned over the next two years as well as four approach procedural sectors. The remoting and clustering of approach radar control services will enable reduction in the number of approach control sectors and related resource requirement, given available technology support; and
- Thirty aerodrome control sectors – the remoting of identified aerodrome control services through remote tower technology will enable reduction in the number of aerodrome control sectors and related resources requirement.

States that are members of ICAO have endorsed the ICAO Global Air Traffic Management Operational Concept, which defines the seamless global aviation system concept. This concept is, in turn, translated into the Global Air Navigation Plan (GANP), supported by the Global Aviation Safety Plan (GASP) and underpinned by the ICAO Standards and Recommended Practices (SARPs).

The GANP is translated into a Regional Air Navigation Plan (RANP), which takes account of the regional differences in the demand placed on the air navigation system, as well as the level of development in the region. The RANP is underpinned by regional plans for ATM/CNS.

The Africa Indian Ocean (AFI) Regional Plan is encapsulated in the ICAO document 7030/4. This forms the basis of the South African National

Airspace Master Plan (NAMP), which is approved by all the aviation stakeholders in South Africa. The NAMP gives rise to the ATNS Air Traffic management (ATM) and Enabling Technologies Roadmaps, which meet the requirements of the ICAO SARPs and South African Civil Aviation Regulations and Technical Standards.

The ATM and Enabling Technologies Roadmaps represent ATNS's ATM service delivery plans, supported by the necessary communications, navigation and surveillance infrastructure.

### Communications infrastructure

ATNS operates an extensive VHF radio network to enable communications between air traffic control and pilots over the South African land mass. An HF Radio system is used as a means of communication for the Oceanic region.

VHF communication systems will remain the primary tool for air traffic control communication for the foreseeable future. The requirement for instantaneous contact between controller and pilot, and the fact that safety may be jeopardized without it, means that VHF voice communication will remain the backbone of controller/pilot communications for some time. Over the coming years, the existing VHF communication network will be replaced and/or upgraded depending on requirements and business cases.

The voice communication and control system (VCCS) is used to relay communications between air traffic controllers, pilots and other air traffic service units. The VCCS serves as a communication switch. All major airport switches are being replaced or upgraded based on cost benefit analysis – on a case-by-case basis.

The VCCS, which is the backbone of information communications technology within ATNS, is hosted on the ATNS wide area network. A high level of security is required on the network to ensure that network integrity is maintained. Due to the complex nature of the network, monitoring tools are being implemented to ensure that network usage and availability is maintained within pre-determined parameters.

At present, Communications infrastructure includes:

- 22 Local VHF Sites;
- 42 Remote VHF sites; and
- 2 HF Sites.

### Navigation infrastructure

ATNS equips pilots with the ability to accurately determine their position over the ground by providing a network of navigation aids such as VHF Omni Directional Radio Range (VOR) and distance measuring equipment (DME) throughout South Africa.

It remains a requirement for South Africa to provide a ground based (terrestrial) navigation system, either as a redundancy for, or an alternate to newer (satellite) navigation systems trends such as GPS. Currently, ATNS maintains the present VOR/DVOR/DME navigation infrastructure pending cost benefit analysis at economic end-off life to determine replacement requirements. In terms of the ICAO ASBUs, this approach supports the roadmap for Block 0 into Block 3.

Additionally, ATNS recognises the need to systematically install a 'distance measuring equipment' (DME) network as a backup network for the global navigation satellite system (GNSS). During the current planning period, a DME-DME network will be extended within certain airspace volumes to support PBN operations and provide a backup to GNSS.

ATNS continuously evaluates the feasibility of navigation technologies for solutions that are appropriate and can yield efficiencies for users. To this end, ATNS is in the process of evaluating the technical implications of the implementation of Global

Navigation Satellite System (GNSS) and associated initiatives in terms of Aircraft Based Augmentation System (ABAS), Satellite Based Augmentation System(SBAS) and Ground Based Augmentation System (GBAS).

The following represents the current navigation infrastructure:

- 36 VOR sites
- 10VDF sites
- 20 DME sites
- 12 NDB sites

### Surveillance infrastructure

ATNS provides primary radar coverage for the terminal areas at most of the major airports; and for en-route coverage, a network 'Monopulse Secondary Radar System' is utilised. At OR Tambo International Airport (ORTIA) and Cape Town International Airport (CTIA), 'Advanced Surface Movement Guidance and Control Systems' are used to provide a means of controlling the movement of aircraft and vehicles on the airfield.

Primary and Secondary surveillance radars (PSRs and SSRs) are currently the main surveillance systems used by ATNS apart from contract automatic dependent surveillance (ADS-C) in the Oceanic areas. To this end, all approach radars for OR Tambo, Cape Town and King Shaka international airports will be replaced in the near term together with en-route secondary radars located in Blesberg. Radar internation and Cape Town Secondary Surveillance radars that will also be replaced.

Multilateration satellite surveillance systems are ideally suited for supplementing areas of poor coverage where SSRs are constrained by the environment and as a back-up system for SSRS. Multilateration systems are normally broadcast automatic dependent surveillance (ADS-B) compatible. Installing multilateration systems therefore prepares one for the future use of broadcast automatic dependent surveillance. New wide area multilateration (WAM) networks will be deployed in the Lowveld as well as in the Johannesburg area west sector; and North West part of the country by the end of the 2017/18 financial year.

Currently surveillance infrastructure includes:

- 2 Surface Movement Radar Systems;
- 8 Primary Radar Systems; and
- 17 Secondary Radar Systems (9 stand-alone).

### Air traffic management system infrastructure

Safety is a major concern in the aviation industry; as such, Air Traffic Controllers' situational awareness should be fostered through continuously updated data. Furthermore, Air Traffic Controllers should be unburdened from enduring noncritical activities by automating repetitive tasks. Electronic Flight Strip Systems (EFS) have the potential to seamlessly coordinate flights between controllers, in the same room, in the same air traffic service unit ATSU, and different ATSUs; resulting in the reduction of errors experienced during coordination (read-back or hear-back). implementation of the electronic flight strips at the regional airports is planned to begin during the current investment period.

The largest planned CAPEX investment, in the coming financial year will be on a replacement programme for the Display System used by Air Traffic Controllers for situational awareness. The current system, known as Eurocat-X, is obsolete and reached the end of its extended support period in the last quarter of 2016. The Collaborative ATNS Air Traffic Systems Programme (CAATS) will replace the existing legacy ATNS national ATM system, with a modern Air Traffic Management system. This new and advanced ATM technology deployed as part of the CAATS Programme will enable ATNS, to meet the demands of high level airspace management, operational efficiency as well as future capacity and scalability requirements.

## SADC VSAT and NAFISAT-network management and future networks

The Southern African Development Community (SADC) Very Small Aperture Terminal (VSAT) II and North East African Communication Networks (NAFISATs) are the sole Aeronautical Fixed Service (AFS) communications network providing Air Traffic Services/Direct Speech (ATS/DS) and Aeronautical Fixed Telecommunication Network (AFTN) services between 13 Air Traffic Control Centres (ATCC) in North East Africa including Saudi Arabia and Yemen and 16 in Southern Africa and the Indian Ocean Islands (SADC) Centres. Both networks also interconnect with the neighbouring Agency for Arial Navigation Safety in Africa and Madagascar (ASECNA) VSAT networks in the North West African Region.

The NAFISAT network annually carries an average of 281 450 ATS/DS calls and 156 000 AFTN messages between the 13 ATCC s forming part of the network with a system availability in excess of 99,9%. The SADC network annually carries some 438 020 ATS/DS calls and 180 000 AFTN messages between the 16 ATCCs forming part of the network with a system availability in excess of 99,8%.

The SADC VSAT II and NAFISAT have been operational from November 2006 and April 2007 respectively. Agreements governing the networks have been extended to November 2022.

At the meetings of the SADC VSAT Supervisory Board and the NAFISAT Supervisory Committee held in March and April 2015 ATS, IATA and their Boards signed the necessary documents allowing ATNS and IATA to continue to be the Network Service Provider until 2022. ATNS and IATA as the joint Network Service Providers presented the updated proposals to the NAFISAT and SADC VSATII Supervisory Committee/ Board at the respective meetings early in 2015. The proposals included the capital cost and upgrade of both networks – which have been a work in progress since the 2015/16 financial year. In terms of current planning, the upgraded networks should go live in early to mid-September 2016.

For a graphic representation of ATNS's extended services on the African continent and beyond, please see figure 4: ATNS's extended services on the African continent and beyond in the Organisational Profile section of this report.

## Performance-based navigation implementation

Performance-Based Navigation (PBN) defines performance requirements for aircraft navigating on an ATS route, in a terminal procedure or within a designated airspace. PBN supports an increase in ATM system capacity and efficiency, as well as bringing about environmental and safety benefits.

At the 36th ICAO General Assembly, States agreed to Resolution A36-23, which urges all states to implement routes and airport procedures in accordance with the ICAO PBN criteria. In support of the resolution, the ICAO Regional PBN Implementation Task Forces were established to coordinate regional implementation programmes. In South Africa, the National PBN Roadmap has been written to be in line with the Global and AFI Region PBN Roadmap.

PBN is helping the global aviation community to reduce aviation congestion, conserve fuel, protect the environment by reducing emissions, reduce the impact of aircraft noise and maintain reliable, all-weather operations, even at the most challenging airports. It provides operators with greater flexibility and better operating returns while increasing the safety of regional and national airspace systems.

ATNS developed the National PBN Roadmap and the National PBN Implementation Plan in cooperation with the ATM Community. The PBN Roadmap and the Implementation Plan have ensured that South Africa has both achieved ICAOs short-term PBN objectives and is on track to meeting medium- and long-term objectives.

Under the leadership of ATNS, a National PBN Steering Committee has been established, as well as a South African PBN Implementation Task Team, with clearly defined roles and responsibilities. The South African PBN Implementation Task Team will ensure PBN implementation in accordance with the South African PBN Roadmap and Implementation Plan. The efforts of ATNS during the 2015/16 financial year have been aimed at achieving the targets stipulated in the National PBN Implementation Plan in terms of adding new RNP approaches and RNAV1/2 Standard Instrument Departures (SID) and Standard Terminal Arrival Routes (STAR). At the same time ATNS will also be involved in the evolution and maintenance of flight procedures at airports where these procedures already exist. ATNS has also introduced PBN training courses at the ATNS Training Academy that could benefit those states that plan to implement PBN.

## Ensuring operational efficiency

South Africa's aviation infrastructure is considered to be one of the best in the world, contributing to the country's aviation safety record. Operational efficiencies play a major role in ensuring air traffic safety. ATNS has two operational efficiency objectives that measure the capability of the organisation's service delivery to the ATM community:

1. Measuring overall traffic delays; and
2. Measuring the system availability of our technologies.

### Measuring traffic delays

ATNS measures operational efficiency by measuring the overall traffic delays at airports and airspace. Delays are typically expressed as 'average delay per delayed (ADD) flight'. ADD is a metric that measures the severity of delays attributable to ATNS in the event that flights are delayed. The Company has set an ADD flight target of 120 seconds to assess and measure the effectiveness of mitigations and operational improvements.

### Measuring system availability

The CNS Service Level Agreement (SLA) describes ATNS's commitments in terms of uptime and connectivity of its technologies, which comprises Communication, Navigation and Surveillance (CNS). The SLA is based on 'system availability' of the system(s) used to support the services provided.

## Performance against targets

| Material issue: Operational efficiencies, service reliability and network performance | |
|---|---|
| **Why it matters** | **Key aspects of our management approach:** |
| ATNS's own economic sustainability is directly dependent on the demand for air travel. Ensuring operational efficiency and reliability for its customers would not only maintain and improve safety standards but will also keep operating costs down, which in turn would ensure that air transport stays affordable and that the number of flights increases. Alongside the AFI expansion strategy, ATNS's focus remains firmly on the regulated business in creating the necessary efficiencies that will translate to value-add for the client base (users).<br><br>ATNS's backbone of all information communications technology is hosted on the ATNS wide area network. Critical consideration is given to the equipment that is used to establish and maintain the network infrastructure. There is also a requirement to implement the highest level of security on the network to ensure that network integrity is maintained. Due to the complex nature of the network, network usage and availability is consistently monitored and maintained within pre-determined parameters. | • ATNS infrastructure development and CAPEX investment plan.<br>• Execution of ATNS ATM/CNS road map<br>• Air Traffic Management System infrastructure - CAATS programme<br>• Investment in Communication, Navigation and Surveillance infrastructure<br>• Monitor infrastructure performance through service level agreement targets. |

| Target for 2015/16 | What we achieved in 2016 | Our focus for 2017 |
|---|---|---|
| • Average delay per delayed flight: 120 seconds. | • Average delay per delayed flight: 13 seconds. | • Average delay per delayed flight: 120 seconds. |
| • Average CNS Systems Availability:<br>– C: 99,67%.<br>– N: 98,65%.<br>– S: 99,77%. | • Average CNS Systems Availability:<br>– C: 99,61%.<br>– N: 96,15%.<br>– S: 100%. | • Average CNS Systems Availability:<br>– C: 99,67%.<br>– N: 98,65%.<br>– S: 99,77%. |
| • Performance-based navigation (PBN):<br>– 4 Design Reports for submission to SACAA (RNP APCH).<br>– 10 Design Reports for submission to SACAA (RNAV 1 SID/STAR).<br>– 8 Design Reports for submission to SACAA (RNAV 1SID/STAR). | • Performance-based navigation (PBN):<br>– 4 Design Reports for submission to SACAA (RNP APCH).<br>– 10 Design Reports for submission to SACAA (RNAV 1 SID/STAR.<br>– 8 Design Reports for submission to SACAA (RNAV 1SID/STAR). | • Performance-based navigation (PBN):<br>– RNP APCH in 100% of instrument runways located at ACSA airports by 31 March.<br>– RNAV 1SID/STAR for 5 (or 80%) international airports (ACSA-owned) by 31 March 2017.<br>– RNAV 1SID/STAR for 1 ACSA Domestic airport where there are operational benefits by 31 March 2017. |
| • Achievement of the revenue and network availability as per SLA Target - SADC VSAT 2:<br>– SLA – 98,5%.<br>– Revenue: R26,8 million. | • SLA – 99,97%.<br>• Revenue: R47,5 million. | • SLA – 98,5%.<br>• Revenue: R42,2 million. |
| • Achievement of the revenue and network availability as per SLA Target – NAFISAT:<br>– SLA: 98,5%.<br>– Revenue: R26,4 million. | • SLA – 99,93%.<br>• Revenue R39,01 million. | • SLA: 98,5%.<br>• Revenue: R32,7 million. |

| Material issue: Infrastructure investment | |
|---|---|
| **Why it matters** | **Key aspects of our management approach:** |
| ATNS recognises the critical role of leading edge technology in ensuring operational efficiencies – in terms of safe operations, environmental impacts, empowered employees, and optimal infrastructure investment. | • ATNS infrastructure development and CAPEX investment plan.<br>• Air Traffic Management System infrastructure - CAATS programme<br>• Investment in communication, navigation and surveillance infrastructure<br>• Monitoring infrastructure performance through service level agreement (SLA) targets.<br>• Execution of ATNS ATM/CNS road map<br>• Implementation of ATM/CNS systems to deliver on stakeholder expectations.<br>• Monitoring industry trends. |

| Target for 2015/16 | What we achieved in 2016 | Our focus for 2017 |
|---|---|---|
| • Compliance with the acquisition and implementation of milestones of the CAPEX plan: R242 million. | • Actual of R230 million, with an additional commitment of R491 million. | • R115 million. |

**Highlights**

- Communications: R113,376,794
- Navigation: R13,372,558
- Surveillance: R21,228,055
- Display Systems: R27,105,892
- Simulator Systems: R2,492,209
- Software: R25,960,905
- General: R26,248,842

## Performance commentary

### Measuring traffic delays

During the year, ATNS registered an ADD flight of 13 seconds against a set target of 120 seconds. This demonstrates the commitment of ATNS staff to the highest standards of air traffic control.

### Measuring system availability

The table below provides a quarterly view of the CNS system availability achieved during year.

TABLE 25: QUARTERLY VIEW OF CNS SYSTEM AVAILABILITY FOR 2015/16

| Business objective | Objective measure | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | 2015/16 Actuals | 2015/16 Target |
|---|---|---|---|---|---|---|---|
| Operational efficiency. | Achievement of CNS Systems Availability. | C: 99.69%.<br>N: 94.77%.<br>S: 100.00%. | C: 99.93%.<br>N: 95.80%.<br>S: 100.00%. | C: 99.58%.<br>N: 97.18%.<br>S: 100.00%. | C: 99.22%.<br>N: 96.83%.<br>S: 100.00%. | C: 99.61%.<br>N: 96.15%.<br>S: 100.00%. | C: 99.67%.<br>N: 98.65%.<br>S: 99.77%. |

The primary reason for non-achievement of Communication and Navigation targets relates to third party interventions (electrical or tele-communication failures). There were also some incidents of theft and vandalism. However, due to redundancy systems in place, service to stakeholders was not adversely impacted.

ATNS continues to pursue ways to improve SLAs with third parties, such as country-wide security assessments on ATNS sites, and working in conjunction with other stakeholders to address security issues at all sites.

### Operation of satellite Communication Networks – SADC VSATII and NAFISAT

The SADC II and NAFISAT Very Small Aperture Terminal (VSAT) networks fulfil the region's communication requirements in terms of the ICAO Africa Indian Ocean (AFI) plan. The networks have succeeded in integrating a regional communications network, contributing to increased communication, thereby allowing for greater safety on air traffic movements, and are financially sustainable. The SLA performances for both Satellite Communication Systems remain above the target level.

The year-to-date satellite communication networks revenue is R47,5 million and R36,1 million for SADC VSATII and NAFISAT respectively. This is attributable to an increase in Flight Information Region (FIR) crossing movements and the fluctuating foreign exchange rates. The SADC VSATII and NAFISAT are being billed in a foreign currency: US Dollar (US$).

TABLE 26: SLA PERFORMANCES FOR VSATII AND NAFISAT

| System | Objective measures | 2015/16 Target | 2015/16 Actual |
|---|---|---|---|
| SADC VSAT II – Operation of the satellite communication networks | Ensure network availability | 98,5%<br>Revenue: 26,8 million | SLA: 99,93%<br>Revenue: 47,5 million |
| NAFISAT – Operation of the satellite communication networks | Ensure network availability | 98,5%<br>Revenue: 26,4 million | SLA: 98,5%<br>Revenue: 36,1 million |

## Performance-based Navigation

The South Africa PBN Roadmap details the framework within which the ICAO PBN concept will be implemented in South Africa for the foreseeable future. The South Africa PBN Roadmap is guided by ICAO Doc. 9613 and relevant SARPS. The South Africa PBN Roadmap also supports national and international interoperability and global harmonization. This Roadmap provides a high-level strategy for the evolution of navigation capabilities to be implemented in three timeframes:

- Near term (2008-2012).
- Mid-term (2013-2016).
- Long term (2017 and Beyond).

The strategy rests upon two key navigation concepts; RNAV and RNP. It also encompasses instrument approaches, Standard Instrument Departure (SID) and Standard Terminal Arrival (STAR) operations, as well as en-route continental, oceanic and remote operations.

The targets set for the mid-term implementation are:

- RNP APCH (APV Baro-VNAV or Augmented GNSS) in 100% of instrument runways where practical, by 2016.
- RNAV 1 or RNP 1 SID/STAR for 100% of international airports by 2016.
- RNAV 1 or RNP 1 SID/STAR for 70% of busy domestic airports where there are operational benefits.
- Implementation of additional RNAV/RNP Routes as required.

In accordance with the above-mentioned implementation targets, ATNS met its associated targets for the year as follows:

- 4 Design Reports for submission to SACAA (RNP APCH).
- 10 Design Reports for submission to SACAA (RNAV 1 SID/STAR).
- 8 Design Reports for submission to SACAA (RNP APCH).

## Infrastructure investment

The 2015/16 financial year marks the start of a new Permission cycle. A total of R242 million was budgeted for new projects during the year. Year-to-date capital expenditure commitment for the year is R491 million.

The table below reflects historical capital expenditure commitments and includes backlog projects of R365,2 million.

TABLE 27: HISTORICAL CAPITAL EXPENDITURE – 2015/16 COMPARATIVE VIEW

| Description | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|
| Communications | 90, 640,176 | 8,741,118 | 113,376,794 |
| Navigation | 63,586,928 | 7,557,932 | 13,372,558 |
| Surveillance | 32,621,344 | 1,412,766 | 21,228,055 |
| Display Systems | 14,163, 712 | 83,158,762 | 27,105,892 |
| Simulator Systems | – | 343,769 | 2,492,209 |
| Software | 49,661,975 | 25,388,053 | 25,960,905 |
| General | 11,877,164 | 10,543,457 | 26,248,842 |
| **Total** | **262,551,298** | **137,145,857** | **229,785,254** |

# Intellectual capital

## Creating intellectual capital value

ATNS's intellectual capital is a key element in the Company's future earning potential and encompasses a range of 'intangibles' that interrelate with the other capitals to create sustained value for the business and its stakeholders. Accordingly, the Company considers three main categories of intellectual capital:

1. Intellectual property relating to the Company's research and development (including service and product development) as well as ATM training knowledge and capability.
2. Organisational capital, relating to the Company's business concept, operational model and strategy; core programmes to respond to industry dynamics; and business and governance processes, policies and procedures.
3. Implicit and embedded knowledge such as Market and sector knowledge, areas of excellence (including critical sector skills and capabilities).

This section specifically addresses ATNS's capability as a leading, sector-specific training institution, and hence the value of the Company's intellectual capital (as expressed through qualified trainers and training programmes) to provide training services as part of its product/service offering to external parties. ATNS's training capacity and expertise are key enablers of industry leadership, innovation and the Company's future earning potential.

Organisational training for ATNS staff relating to skills enhancement, leadership training and the development of competencies in various functional areas is covered in the Human Capital section that follows.

### Material intellectual capital outcomes

- Exerting more influence and market confidence in our abilities.
- Improving air traffic safety in Africa.
- Enhancing sector competencies.
- Contributing to a pool of engineering skills.

### Material issues

- Research and development.
- Training and development in sector-specific skills.

### Approach to creating intellectual capital value

ATNS's material aspects are addressed through the integration of several key enablers of intellectual capital value, including:

- Innovation and applied research.
- ATNS's Aviation Training Academy.

#### Innovation and applied research

##### Innovation around operational concepts and safety performance

Research and innovation around operational concepts and safety performance is vital for the improvement of safety within ATNS's operational environment. Performance-Based Navigation (PBN) is increasingly seen as the most practical solution for regulating the expanding domain of navigation systems. The implementation of PBN in South Africa requires a radical realignment of the way that navigation systems are perceived. This impacts on the way that certification, regulation, oversight and operation of navigation systems are performed. Going forward, stakeholder support will be of critical importance for the implementation of PBN at national level.

Further research projects anticipated in the short and medium term include:

- Evaluating time-based final approach and landing spacing tools and related air traffic management techniques (used by NATS) for application in busy terminal areas. It is anticipated that this project if successfully implemented, will yield the following benefits:
  - Optimum spacing on final approach and landing.
  - Consistency in delivering adequate runway throughput.
  - Reduced complexity of sequencing and related controller mental workload, with associated safety benefits.
- Conducting a study to evaluate error probability rates in performing selected APP/ACC radar functions. The results of this study will guide interventions to manage human performance errors in the area and approach pools.
- Conducting a study to evaluate error probability rates for performing selected ADC functions. The results of this study will guide interventions to manage human performance errors in the aerodrome environment.

### The AVI AFRIQUE Aviation Innovation Summit

To ensure leadership in the areas of ATM innovation, ATNS founded the AVI AFRIQUE Aviation Innovation Summit, which was first inaugurated in November 2012. The forum aims to integrate research and innovation that will ensure that solutions on the continent are relevant to the African market and address the needs that may not necessarily be met by research programmes in the USA and Europe.

The establishment of AVI AFRIQUE is widely supported and represents key decision-makers and stakeholders from the Technology Innovation Agency, the Department of Science and Technology, the Department of Transport, the CSIR and aviation organisations such as IATA, Board of Airline Representatives of South Africa (BARSA), Boeing and Airlines Association of Southern Africa (AASA), among others. The AVI AFRIQUE Aviation Innovation forum is now an annual event with tangible innovation objectives as well as a strategic roadmap. The innovation forum has been extended to include African counterparts, in order to ensure that there is an integrated applied research (AR) and innovation framework for the aviation community in the continent at large.

### Applied research unit within ATNS

Further, in line with the vision of the South African government, to move the country towards a knowledge-based economy, ATNS is shifting from being merely a user of the acquired technologies to contributing to the value chain of technology innovation and the development of technologies utilised locally. The ATNS Operations Technology Department has established and published an Applied Research (AR) strategy and plan, which is in the process of being implemented. The ATNS AR unit has made significant strides since its establishment in 2011, and the main focus has been on capacitating the unit with appropriate human capital, in parallel to some of the initiatives enlisted.

### Aviation Innovation Laboratory

ATNS exhibits greater possibilities of innovation as a result of the adoption of an applied research method. This means that research activities are undertaken with the purpose to innovate, develop, enhance and/or validate technology solutions that have the potential to be commercialised or operationalised for primary use in the ATM operational environment. The outcomes of the applied research emphasis may lead to product development, process development and or improvement. This has also inspired the Company to establish the Aviation Innovation Laboratory where future technological ideas and solutions based on emerging aviation technologies can be ideated, visualised, simulated, tested and validated. This is to ensure that ATNS becomes an African leader in the 21st-century innovation economy.

## Aviation Training Academy (ATA)

ATNS's Aviation Training Academy provides a full range of air traffic services training, technical support and related training. The ATA is also an ISO 9001:2008 accredited institution and has international cooperation agreements with partners such as the Embry Riddle

Aeronautical University, ENAC and WITS, enabling the ATNS ATA to maintain mutually beneficial partnerships in the presentation and accreditation of various projects, including ATS international courses. During the 2015/16 reporting period, the Company reviewed the ATA's current training model with a view to further optimise its service offerings, which will positively impact the entire training value chain. It will also help to transition the ATA from a 'cost centric' model to a fully accredited Academic Institution.

## Performance against targets

| Material issue: Research and development | |
|---|---|
| **Why it matters** | **Key aspects of our management approach** |
| In line with the vision of the South African Government to move the country towards a knowledge-based economy, ATNS is shifting from merely being a user of the acquired technologies to contributing to the value chain of technology innovation and the development of locally-consumed technologies. In this way, ATNS is positioning the Company as a leader in ATM technology innovation on the African continent. | • Innovation around operational concepts and safety performance.<br>• The AVI AFRIQUE Aviation Innovation Summit.<br>• Applied research unit within ATNS.<br>• Aviation Innovation Laboratory. |
| **Highlights** | |
| • A data services agreement signed between ATNS and Aireon LLC on 7 December 2015 – enabling 100% air traffic surveillance of the Johannesburg Flight Information Region (FIR) and the Cape Town FIR. | |

| Material issue: Training and development in sector-specific skills | | |
|---|---|---|
| **Why it matters** | | **Key aspects of our management approach** |
| Globally regarded as a beacon of safety in airspace navigation, ATNS is regarded as a centre of excellence and an institute of reference. This standing can only be maintained if ATNS continues to attract, retain and develop competent people who are aligned with the Company's desired culture of safety, professional excellence and sustainability awareness. The sector-specific skills training provided by the ATA strengthens the Company's unique ATM intellectual capital and enhances its leadership capability in the ATM space on the African continent. | | • ATNS's Aviation Training Academy.<br>• Management training to enhance employee engagement and motivation.<br>• Continuation training to maintain the skills of air traffic controllers.<br>• Enhanced supervision of service delivery. |
| **Target for 2015/16** | **What we achieved in 2016** | **Our focus for 2017** |
| • Manage the training pipeline for ATS and technical staff:<br>– ATCO 3: 226.<br>– ATCO 2: 37.<br>– ATCO 1: 119. | • ATCO 3: 211.<br>• ATCO 2: 29.<br>• ATCO 1: 115. | • ATCO 3: 226.<br>• ATCO 2: 37.<br>• ATCO 1: 119. |
| • Training of Engineering Technicians: 74. | • Engineering Technicians: 74. | • Engineering Technicians: 78. |
| • Training of Engineering Satellite Technicians: 5 | • Engineering Satellite Technicians: 5. | • Engineering Satellite Technicians: 5 |

## Performance commentary

### Innovation and applied research

A data services agreement was signed between ATNS and Aireon LLC, developer of the world's first space-based global air traffic surveillance system on 7 December 2015. Through the agreement, ATNS will have 100% air traffic surveillance of the Johannesburg Flight Information Region (FIR) and the Cape Town FIR, which cover approximately 10% of the world's airspace. This will be done through Aireon's satellite-based Automatic Dependent Surveillance-Broadcast (ADS-B) service, scheduled to be operational in 2018. ADS-B is a surveillance technology in which an aircraft determines its position via satellite navigation and periodically broadcasts it, enabling it to be tracked. The information can be received by air traffic control ground stations as a replacement for secondary radar.

### Aviation Training Academy (ATA)

The Aviation Training Academy (ATA) was awarded the rare status of a Regional Training Centre of Excellence (RTCE) by the International Civil Aviation Organisation (ICAO) in New Delhi, India in November 2015. To qualify as an RTCE, ATNS was selected based on its successful demonstration of compliance by satisfying standard ICAO requirements for a clean, well-maintained, state-of-the-art facilities, including sufficient well-equipped classrooms.

### Managing a pipeline of ATS and technical staff

ATNS manages the training pipeline for ATS and technical staff at its Aviation Training Academy. The table below reflects the number of ATS and Technical staff who received training and development.

TABLE 28: ATS AND TECHNICAL STAFF ON TRAINING AND DEVELOPMENT PROGRAMMES DURING 2015/16

| Technical staff on training | 2015/16 Actual | 2015/16 Target | Variance |
|---|---|---|---|
| ATCO1 | 115 | 119 | (4) |
| ATCO2 (Senior ATCs) | 29 | 37 | (8) |
| ATCO3 (Principal ATCs) | 211 | 226 | (15) |
| Engineering Technicians (including satellite technicians). | 83 | 79 | 4 |

The main reason for the negative variance in the ATCO3 stream is due to staff attritions resulting from individuals being enticed to work abroad given the global shortages within this stream. The ATCO2 stream has declined slightly due to successful validation of staff into ATCO3 stream. The ATCO1 shortage is due to some employees successfully validating into ATCO3 streams as well leaving due to inter-departmental moves.

# Human capital

## Creating human capital value

ATNS builds and preserves human capital value through the individual capabilities, knowledge, skills and experience of the Company's employees and managers. Leadership and employee motivation are two key drivers and influencers of organisational effectiveness. It is, therefore, important to create an environment in which employees are motivated, committed and share the collective goals of the organisation.

Safety is a primary driver in ATNS's efforts to provide efficient air traffic service to our customers and the broader industry. We strive to foster a culture of safety amongst our employees, as well as external stakeholders and the broader ATM community. There is, therefore, an obvious need to build a proactive safety culture within ATNS, especially within its operations, where controllers are directly involved in the separation of aircraft.

ATNS also recognises that a company-wide commitment to sustainable business practices finds expression through the individual and collective behaviours and actions of our employees. The Company, therefore, endeavours to embed a culture of sustainability through training and awareness campaigns related to environmentally sound business practices and the preservation of natural resources throughout ATNS's operations.

ATNS further considers the strategic importance of building a skilled and capable workforce, and acknowledges that the Company's continued success relies on its ability to attract, recruit develop and retain diverse, qualified and skilled professionals. Additionally, ATNS's long-term human capital value creation lies in being committed to the transformation of our society and our organisation through sound employment equity practices. We seek to create an organisation that reflects the diversity of our society and that maximises the potential of our employees.

### Material human capital value outcomes

- Maintaining a representative workforce.
- Embedding a culture of sustainability.
- Promoting an organisational culture that entrenches safety values.
- Enhancing skills and building competencies.

### Material issues

- Employment equity
- Safety culture
- Staff wellness
- Employee training and development

### Approach to creating human capital value

ATNS's material aspects are addressed through the integration of several key enablers of human capital value, including:

- Leadership Competency Model.
- Continuation training to maintain the skills of air traffic controllers.
- Enhanced supervision of service delivery.
- ATNS' Safety Culture Maturity Model.
- Safety management practices.
- ATNS Employment Equity Plan.
- Performance and reward.
- Management practices.
- Managing employee wellness

#### Leadership Competency Model

ATNS has developed a Leadership Competency Model as a platform to improve leadership skills and to

capacitate management to lead highly technical teams. The entire ATS management team is expected to undergo 'ship training' as an aid to building relationships with employees, as well as to improve performance and safety management.

### Continuation Training for air traffic controllers

Continuation training spans various training programmes to maintain the skills of air traffic controllers, and to provide refresher courses and emergency training. Continuation training further consists of theoretical and practical courses, together with simulation training where appropriate. Continuation training aims to provide all ATS personnel with the necessary knowledge and understanding to retain the current levels of competence required by ATNS. It is intended that recurrent training will reinforce and confirm past knowledge gained and ensure that current competency levels are maintained. In addition to simulator training, the Company continues to cross-train selected controllers from quieter stations to gain experience in busier stations in order to improve skills and performance.

### Enhanced supervision of service delivery

Supervision of service delivery is critical for delivering a safe service. Pool Managers and Officers in Charge (OiCs) are responsible for planning and directing air traffic service delivery for their various areas of responsibility. They are further responsible for attending to the following:

- Providing first-line supervision to a team of air traffic controllers by offering specific ATS services under their own responsibility.
- Evaluating the flow of traffic in and out of sectors.
- Implementing restrictive actions as may be required to ensure acceptable levels of traffic.
- Mitigating delays.
- Engaging various customers in 'real time' and attending to their ATM needs as required.
- Providing leadership and direction while employing collaborative decision-making to develop the strategic and tactical operational plan.

Given that Pool Managers and OiCs may not be at the unit in a full-time capacity (i.e. 24/7), senior members from the Air Traffic Control Officer (ATCO) pools are appointed on a shift-by-shift basis to fulfil supervisory functions as indicated above. During the year, ATNS continued to implement the Visible Safety Campaign which promotes a significant increase in visible oversight of operations at all the air traffic service units. The campaign further encourages an increase in work hours to enhance peer supervision where staffing permits. The campaign is premised on the provision of real-time support functions, including management, to achieve sustainable and improved operational safety performance.

### Safety Culture Maturity Model

ATNS considers the need for having 'informed', 'just', 'flexible' and 'learning' cultures in an operational centre to be self-evident; however, this need is not always obvious to those who are not at the operational 'sharp end', such as the developers of new technologies, systems and procedures. The Safety Culture Maturity Model contains five iterative stages of maturity, against which organisations can benchmark and progress sequentially by building on their safety culture strengths and minimising weaknesses. ATNS performs a Safety Culture Maturity Survey every three years. The outcomes of this survey results in action plans for each Department within ATNS and also informs staff training on sustainability issues.

### Safety management practices

At a global level, civil aviation is planned to be seamlessly integrated across national boundaries, with common service standards and quality, irrespective of who provides the Air Navigation Service; be it a State, a group of States or delegated service providers. ATNS routinely measures and reports on the safety performance of the organisation with the objective of achieving continuous improvement in safe service delivery.

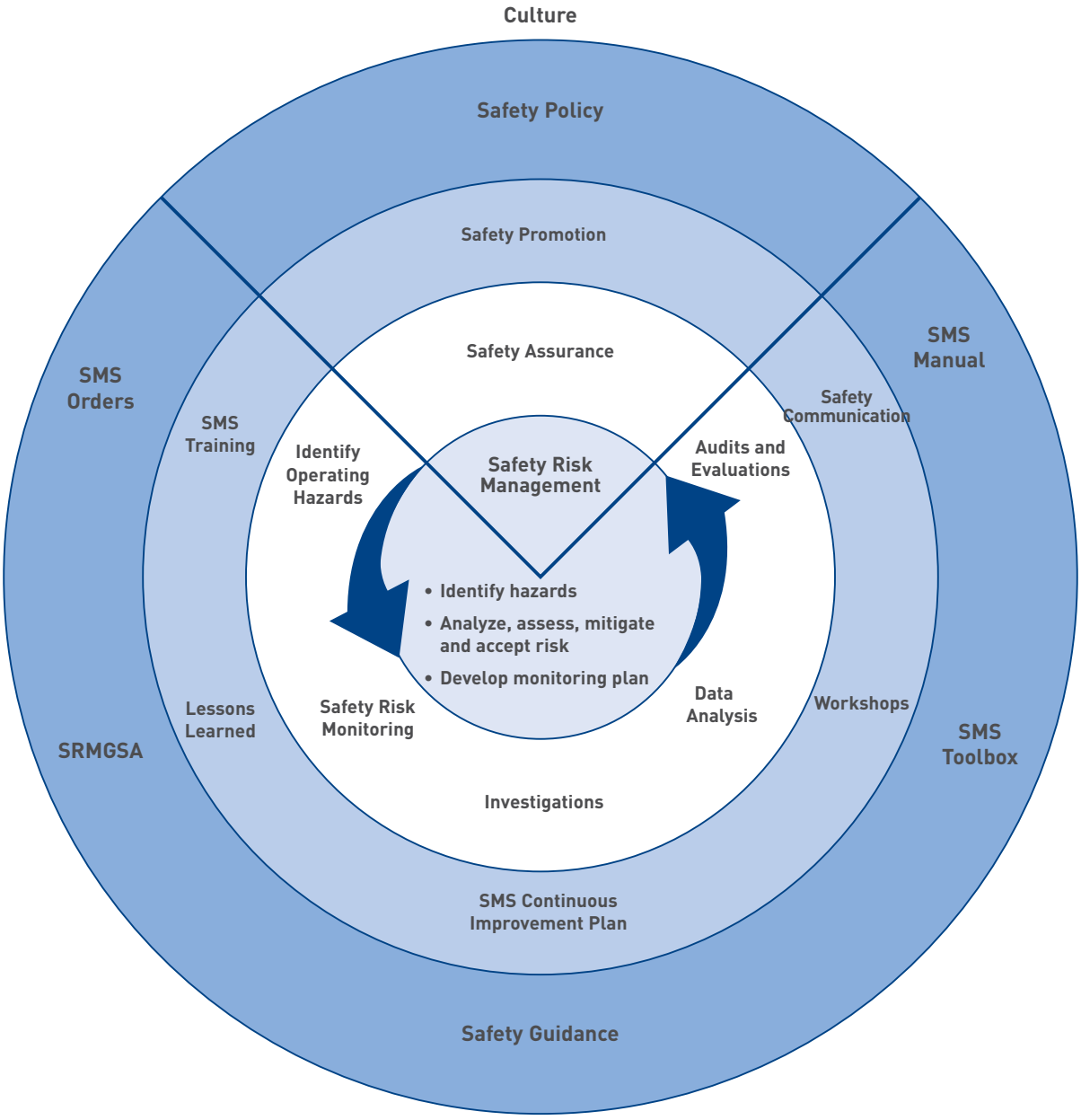
During the 2013/14 financial year ATNS developed additional safety performance indicators. These indicators report on the successful service delivery of ATNS, measured against the number of Instrument Flight Rule (IFR) flight hours. The overarching value is represented by the number of 'losses of separation' related to aircraft being provided with a service. This

measure can be compared to the same metric obtained from the Civil Air Navigation Services Organization (CANSO) and serves to support the benchmarking of safety performance. ATNS introduced this safety measurement and associated KPI's for the first time during the 2015/16 financial year.

Safety Management System (SMS) Policy and ATNS' Safety Management System (SMS) and together with the Safety Management Plan form part of the Company's risk management and compliance assurance initiatives. ATNS officially implemented the ATNS SMS during September 2006 to comply with the ICAO Annex 19 requirement for States to implement ATS safety management programmes. ATNS complies with South African Civil Aviation Regulations (CAR) Part 140, supporting Annex 19 requirements.

The SMS policy is available online at http://www.atns.co.za/annual-reports

FIGURE 15: ATNS' SAFETY MANAGEMENT SYSTEM



## Embedding a safety culture

Excellence in safety, as a guiding principle, remains non-negotiable across our ATM system activities. We are committed to implementing, developing and improving appropriate strategies, management systems, processes and procedures to ensure that all our ATM Service Delivery (ATMSD) activities uphold the highest levels of safety performance and meet national and international standards and expectations. Accordingly, we remain steadfast in delivering the following safety imperatives:

- Developing and embedding a safety culture across all our ATM system activities that recognises the importance and value of effective aviation safety management and acknowledges, at all times, that safety is paramount.
- Clearly defining for all personnel their accountabilities and responsibilities for development and performance, which include safety imperatives.
- Minimising the risk associated with an aircraft incident or accident to a point that is "as low as reasonably/practicably achievable".
- Ensuring externally supplied systems and services that impact upon the safety of our ATM service delivery (ATMSD) operations meet appropriate safety standards.
- Actively developing and improving our safety processes and procedures to meet the safety standards and, whenever possible, exceeding ICAO standards and recommended practices (SARPs).
- Ensuring that all personnel are provided with adequate and appropriate safety information and training; are competent in safety matters; and are only allocated tasks commensurate with their skills.
- Ensuring sufficiently skilled and trained resources are available to develop safety strategy and implement policy.
- Establishing and measuring our ATM system safety performance against objectives and targets.
- Achieving the highest levels of safety standards and performance in all our ATM activities.
- Continually improving on our safety performance.
- Conducting safety and management reviews and ensuring that relevant action is taken where required.

## Scope of the Safety Management System (SMS)

The Safety Management System encompasses all ATNS's ATMSD activities, including that of the Aviation Training Academy (ATA). Its scope extends to all levels of management, instructors involved in training ATMSD staff, operational air traffic controllers, air traffic service assistants, aeronautical information management personnel and technical support.

Project execution, as well as the acquisition and commissioning of equipment and systems are performed in conjunction with appropriate safety assessments and the identification and mitigation of associated risks, including security implications related to ATNS' staff, installations and facilities. SMS benchmarking is conducted against CANSO and EUROCONTROL Standards of Excellence.

Comprehensive safety audits are conducted to include air traffic services, technical services and criteria relating to human factors. Figure 15 represents the core components of ATNS' Safety Management System and demonstrates the Company's integrated approach to safety management, with a view to embedding a culture of safety in the organisation.

### ATNS Employment Equity Plan

Representation in the workforce is guided by ATNS's internal Employment Equity (EE) Plan which is aligned to the Employment Equity Act, 1998 (Act No. 55 of 1998). ATNS' strategic objectives and prevailing organisational culture support on-going equal opportunity initiatives, with specific emphasis on designated groups. The previous five-year ATNS Board-approved Employment Equity Plan terminated on 31 March 2015. A new five-year Employment Equity Plan was approved and took effect 1 April 2015 to 31 March 2020.

Implementation through the various line departments is championed by the CEO and executive management, and cascades to the middle, lower and operational levels in the Company. The five-year EE Plan is intended to transform the ATNS employee profile to reflect national demographics and is reviewed annually to adjust targets as and when required.

In line with the Employment Equity Act, the ATNS five-year EE Plan encompasses the following objectives:

- To create a balanced profile of employees within the Company through all occupational categories and levels.
- To eliminate any discriminatory practices in terms of race, gender or disability.
- To provide for the Company's present and future requirements in terms of skilled staff, in line with the business plan.
- To implement, monitor and evaluate appropriate measures aimed at redressing the effects of past imbalances created by discriminatory employment policies and practices.

The EE Plan is reviewed on an annual basis and progress is monitored and reported on a monthly basis to the Executive Management Committee, as well as reported quarterly to the Human Resource and Social and Ethics Committees.

### Performance management and reward

ATNS recognises the critical links between effort and performance, and between performance and reward. The Company's key performance areas (KPAs) and associated targets – as mandated by the Shareholder Compact – direct our collective efforts and deliverables. In turn, our recognition and reward system aims to cultivate a culture of trust, confidence, shared innovation and performance leadership within the Aviation sector. This is particularly relevant in terms of the vital contributions ATNS employees make to safety management in the normal course of ATM operations.

ATNS and the recognised trade union, Solidarity, have entered into a four-year substantive salary agreement that commenced on 1 April 2015. Contained in this agreement is a newly developed performance management system, which applies to all employees within the administrative bargaining unit. This scheme will, furthermore, be applicable to all administrative employees outside the bargaining unit in administration as well as selected Technical Bargaining unit positions. The focus of this scheme is to align performance to strategic objectives, professional competencies and industry expectations. ATNS's reward and remuneration practices are aligned to selected international and appropriate local markets and comply with all relevant laws and regulations. This was affirmed during the year when ATNS received an Award for the 'Best Achiever' at the South African Board of People Practices (SABPP) on the following:

- Reward and Recognition
- Organisational Development
- HR Service Delivery

In addition, ATNS received the award as the 2nd Best Achiever in the overall Score of the Audit for 2015/16.

### Skills development (SD)

ATNS provides learning programmes for all employees in line with organisational needs. Further, the Company regularly reviews the Skills Development Strategy that forms part of the ATNS Talent Management Initiative. The Learning Management System maintains records of training interventions implemented for all employees.

### Employee wellness

Employee wellness forms an integral part of ATNS's overall Human Capital Strategy to ensure that employees are engaged and productive in their jobs and are present at work. For ATNS, an operational environment that is anything less than performance-oriented could impact the Company's overall efficiency and performance, incur costs as a result of absenteeism and pose a safety risk.

## Performance against targets

| Material issue: Safety culture | |
|---|---|
| **Why it matters** | **Key aspects of our management approach** |
| Safety is the primary driver for ATNS's collective efforts. The Company strives to build a shared culture of safety among its employees as well as its external stakeholders from the wider ATM community. | • Continuation training to maintain the skills of air traffic controllers.<br>• Enhanced supervision of service delivery.<br>• ATNS' Safety Culture Maturity Model.<br>• Safety management practices.<br>• Performance and reward.<br>• Managing employee wellness. |
| **Highlights** | |
| • All operational staff members received continuation training.<br>• Overall, 535 employees received sustainability-related training.<br>• Inherent safety risks tracked at unit level against the unit risk register. | |

| Material issue: Employee development and wellness | | |
|---|---|---|
| **Why it matters** | **Key aspects of our management approach** | |
| A skilled, representative and motivated workforce contributes not only to ATNS's strategic and operational objectives, but also adds to the countries competitiveness and stability.<br><br>Employee wellness forms an integral part of ATNS' staff development focus and overall Human Capital Strategy. For ATNS, an operational environment that is anything less than performance-oriented could impact the Company's overall efficiency and performance, lead to incurred costs as a result of absenteeism and pose a safety risk. | • A Leadership Competency Model.<br>• Continuation training to maintain the skills of air traffic controllers.<br>• Enhanced supervision of service delivery.<br>• ATNS' Safety Culture Maturity Model.<br>• Safety management practices.<br>• Performance and reward.<br>• Managing employee wellness. | |
| **Target for 2015/16** | **What we achieved in 2016** | **Our focus for 2017** |
| • B-BBEE Skills Development point score: 25,00. | • B-BBEE Skills Development point score: 22.00. | • B-BBEE Skills Development point score: 25. |
| • Deliver environmental awareness training to 50% of ATNS employees. | • Deliver Environmental awareness training to 50% of ATNS employees. | • Deliver Environmental awareness training to 50% of ATNS employees. |
| • Development programmes for all employees, with emphasis on AIC and women: 3% Rand value of Cost to Company. | • 7,57% Rand value of Cost to Company.<br>• R135,320.63 spent on environmental training for employees during the year. | • 3% Rand value of Cost to Company. |

| Material issue: Employment equity – ATS and ATNS Company-wide | |
|---|---|
| **Why it matters** | **Key aspects of our management approach:** |
| ATNS aims to create a balanced profile of employees within the Company through all occupational categories and levels and to<br><br>eliminate any discriminatory practices in terms of race, gender or disability. It is critical for the Company to provide for the present and future requirements of the organisation in terms of skilled staff, in line with the business plan and to implement, monitor and evaluate appropriate measures to redress the effects of past imbalances created by discriminatory employment policies and practices. | • Ensuring employment equity.<br>• Performance and reward.<br>• A leadership blueprint. |

| Target for 2015/16 | What we achieved in 2016 | Our focus for 2017 |
|---|---|---|
| • B-BBEE Employment Equity point score: 15. | • B-BBEE Employment Equity point score: 113.09. | • B-BBEE Employment Equity point score: 15. |
| • B-BBEE Management Control point score: 10. | • B-BBEE Management Control point score: 27.50. | • B-BBEE Management Control point score: 10. |
| • Achieve a target of 58% ATS AIC. | • 66.67% ATS AIC | • Achieve a target of 65% ATS AIC. |
| • Achieve a female target of 40% ATS. | • ATS female representation: 41.38% | • Achieve a female target of 42% ATS |
| • Achieve a ATNS AIC target 72% AIC | • 73,15% AIC. | • Achieve a target 74% AIC. |
| • Achieve ATNS company target of 46% female representation. | • 45,55% female representation. | • Achieve a company target of 47% female. |
| • Achieve a company target of 3,5% for people with disabilities. | • 2,79% people with disabilities. | • Achieve a company target of 3% for people with disabilities. |

## Performance commentary

### Embedding a safety culture

ATNS facilitated an internal sustainability and environmental awareness training programme for more than 50% of its employees. Overall, 535 employees received sustainability-related training. Training on 'sustainable climate change awareness' is ongoing within the organisation.

All operational staff members received continuation training during the year. The continuation training is based on unit-specific and national lessons learned in terms of inherent risks. Inherent safety-related risks were measured and tracked at unit level against the unit risk register.

ATS embarked on the development of a structured tertiary developmental programme to support managerial and leadership skills and competencies of the entire ATS management team.

### Skills development

During the year, ATNS spent R322,524 on 22 AIC learning and development opportunities for staff with disabilities, of which 17 were female. Further, ATNS is in the process of partnering with iLearn to create intern opportunities for disabled AIC staff. ATNS achieved a point score of 22 points in terms of the Skills Development element of the B-BBEE scoring system.

Overall, R135,320.63 was spent on environmental training during the year.

### Employment equity targets

#### ATS employment equity targets

During the year, ATNS continued to pursue a workplace profile that aligns to the national demographics and the integrated transport sector's B-BBEE charter.

The table below reflects the ATS employment equity profile as at March 2016.

TABLE 29: ATS EMPLOYMENT EQUITY PROFILE FOR 2015/16

| ATNS EE targets | 2015/16 Actual | 2015/16 Target |
|---|---|---|
| ATS AIC | 66,67% | 58% |
| ATS Female | 41,38% | 40% |
| Management control | 29,00 | 35,00 |

A more detailed breakdown of the ATS AIC profile is depicted below:

TABLE 30: DETAILED BREAKDOWN OF ATS AIC PROFILE FOR 2015/16

| | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| ATS | African | Indian | Coloured | White | African | Indian | Coloured | White |
| Sub-total | 151 | 34 | 33 | 139 | 151 | 17 | 20 | 64 |
| % | 24,79 | 5,58 | 5,42 | 22,82 | 24,79 | 2,79 | 3,28 | 10,51 |

## ATNS employment equity targets

TABLE 31: ATNS EMPLOYMENT EQUITY PROFILE FOR 2015/16

| ATNS EE targets | 2015/16 Actual | 2015/16 Target |
|---|---|---|
| ATNS AIC | 73,15% | 72% |
| ATNS Female | 44,55% | 46% |
| PWD | 2,79% | 3,5% |

A more detailed breakdown of the ATNS AIC profile is depicted below:

TABLE 32: DETAILED BREAKDOWN OF ATNS AIC PROFILE FOR 2015/16

| | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| ATS | African | Indian | Coloured | White | African | Indian | Coloured | White |
| Sub-total | 304 | 47 | 45 | 225 | 308 | 34 | 35 | 95 |
| % | 27,81 | 4,30 | 4,12 | 20,59 | 28,18 | 3,11 | 2,20 | 8,69 |

TABLE 33: ATNS EXPANDED EMPLOYMENT EQUITY PROFILE FOR EACH OCCUPATIONAL LEVEL – 2015/16

| | African | | Indian | | Coloured | | White | |
|---|---|---|---|---|---|---|---|---|
| Occupational Level | Male | Female | Male | Female | Male | Female | Male | Female |
| Top Management | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Senior Management | 5 | 3 | 1 | 0 | 0 | 0 | 2 | 0 |
| Professional | 14 | 11 | 2 | 1 | 1 | 1 | 7 | 2 |
| Skilled | 258 | 270 | 44 | 33 | 39 | 34 | 214 | 93 |
| Semi-Skilled | 19 | 3 | 0 | 0 | 5 | 0 | 2 | 0 |
| Unskilled | 6 | 21 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **304** | **308** | **47** | **34** | **45** | **35** | **225** | **95** |

## Employee wellness

### TABLE 34: OVERVIEW OF ANNUAL ABSENTEEISM WITHIN ATNS

| Gender | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|
| Male | 4,140 | 2,538 | 5,017 | 6,112 | 3694 |
| Female | 5,659 | 2,522 | 4,710 | 4,802 | 3148 |
| **Total** | **9,799** | **5,060** | **9,727** | **10,915** | **6843** |

### TABLE 35: LEAVE TYPE CALCULATED QUARTERLY FOR 2015/16

| Leave Types | Q1 | Q2 | Q3 | Q4 | Grand Total |
|---|---|---|---|---|---|
| Annual Leave | 6,596 | 4,904 | 9,196 | 5,365 | **26,061** |
| Family Responsibility Leave | 203 | 222 | 207 | 171 | **803** |
| Maternity Leave | 77 | 943 | 336 | 682 | **2,038** |
| Relocation Leave | – | – | – | 113 | **113** |
| Sick Leave | 1,762 | 1,849 | 1,577 | 1,655 | **6,843** |
| Special Leave | 66 | 50 | 54 | 65 | **235** |
| Study Leave | 346 | 73 | 358 | 78 | **855** |
| Unpaid Leave | 61 | 83 | 35 | 78 | **257** |
| Unpaid Maternity Leave | – | 118 | 109 | 128 | **355** |
| | **9,111** | **8,242** | **11,872** | **8,335** | **37,560** |

### TABLE 36: TOTAL TURNOVER OF ATNS EMPLOYEES FOR 2015/16

| Occupational Level | African | | Coloured | | Indian | | White | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | Female | Male | Female | Male | Female | Male | Female | Male | |
| Professionally Qualified | 3 | 3 | | | | | | | 6 |
| Semi-Skilled and Discretionary | 6 | 9 | | | | 1 | | | 16 |
| Skilled Technical Workers | 21 | 22 | 5 | 1 | | 1 | 6 | 27 | 83 |
| Unskilled and Defined Decision | | 1 | | | | | | | 1 |
| **Grand total** | **30** | **35** | **5** | **1** | **0** | **2** | **6** | **27** | **106** |

### TABLE 37: TOTAL NEW ATNS EMPLOYEES HIRED DURING 2015/16

| Occupational Level | Female | | | | Female | Male | | | Male | Grand |
|---|---|---|---|---|---|---|---|---|---|---|
| | African | Coloured | Indian | White | total | African | Indian | White | total | total |
| Professionally Qualified | 4 | 0 | 1 | 0 | 5 | 4 | 1 | 0 | 5 | 10 |
| Semi-Skilled and Discretionary | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 |
| Senior Management | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 |
| Skilled Technical Workers Junior | 52 | 7 | 1 | 2 | 62 | 36 | 0 | 8 | 44 | 106 |
| Unskilled and Defined Decision | 1 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 4 | 5 |
| **Grand total** | **57** | **7** | **2** | **2** | **68** | **48** | **1** | **8** | **57** | **125** |

# Social and Relationship capital

## Creating social and relationship capital value

ATNS considers the value represented by and through our stakeholder relationships as critical to the long-term economic and social sustainability of the business. These relationships are exemplified by the strength of our supply chain relationships, community partnerships, government and regulatory relations and our relationships with our customers and sector partners.

### Material social and relationship capital value outcomes

- Building positive stakeholder relationships to support economic, social and environmental sustainability.
- Promoting socio-economic value: Community development.

### Material issues

- Safety service provision.
- Supply-chain practices.
- Skills development within communities where we operate.
- Quality community projects.

### Approach to creating social and relationship value

ATNS's material aspects are addressed through the integration of several key enablers of social and relationship value, including:

- Proactive stakeholder management.
- Continuous safety improvement and implementation of ATNS' Safety Management Plan
- Sound supply-chain practices.
- ATNS Corporate Social Investment (CSI) Strategy.
- Learnership programmes

#### Proactive stakeholder management

ATNS' Stakeholder Dialogue processes keep the business focused on the relevant means to provide the greatest benefit to our stakeholders and our Company. The Company actively initiates dialogue with various key stakeholder groups harnessing a wide range of channels as a way to promote participative and integrated decision-making.

Stakeholder engagement vehicles include quarterly EXCO to EXCO meetings, road-shows, industry safety workshops, and 'Thought Leadership' programmes, such as the annual ATNS Avi Afrique Innovation Summit. We share plans, collaborations and information on material issues of safety, training and Air Traffic Management (ATM); as well as Engineering and Technical Services (ETS).

Table 38 outlines ATNS's approach to stakeholder engagement according to the following criteria:

- Stakeholder group.
- Engagement approach / vehicle.
- Frequency of engagement.
- Main areas of stakeholder interest/concerns.
- ATNS's response to stakeholder concerns.
- Responsiveness measurement.

## TABLE 38: STAKEHOLDER ENGAGEMENT APPROACH AND MEASUREMENT

| Stakeholder Group | Engagement approach | Frequency of engagement | Main areas of interest/concern |
|---|---|---|---|
| South African Air Force (SAAF) | EXCO meetings: ATNS Bruma and SAAF HQ | Quarterly | • Flexible use of airspace.<br>• UACC.<br>• Training<br>• Engineering and technical services.<br>• Joint Flight Procedure Development Plan (JFPDP).<br>• Presidential protection units (VVIP units). |
| South African Civil Aviation Authority (SACAA) | EXCO meetings: ATNS Bruma and SACAA Campus | Quarterly | • Regulatory compliance and enabling regulations |
| International Air Transport Association (IATA) | EXCO meetings: ATNS Bruma and IATA offices Sandton | Quarterly | • Entrenching valuable partnerships<br>• Endorsement as regional training<br>• VSAT network management<br>• ATM<br>• Implementation |
| Airlines Association of South Africa (AASA) | Business meetings: AASA | Quarterly | • Meeting industry needs |
| National Department of Transport (DoT) | EXCO / Shareholder meetings | Quarterly | • ATNS is an efficient and professional managed entity |
| Economic Regulator | Meetings | Bi-Annual | • Tariff management and service standards reporting |
| ATNS staff | Direct staff engagement | Monthly | • Individual employee concerns within the work environment |
| Continental ANSPs | Call schedules and market visits | Quarterly | • ATNS products and services |
| Media | PR and sound media management | Continuous | • ATNS is credible, open and accessible |
| CANSO | Conference attendance | Regularly | • Improved global ATM |
| Students | Social media and road-shows | Continuous | • The sky is not the limit – it is where it all begins! |
| Job seekers | PR / Media | Continuous | • ATNS is an employer of choice |
| Regional aerodrome owners | Scheduled meetings | Quarterly | • ATNS is a partner in safety and growth |
| CAASA | Scheduled meetings | Bi-Annually | ATNS is a partner in safety and growth |
| Strategic partnerships with ANSPs outside the continent | Scheduled meetings | Continuous | Improved relations lead to better collaborations in ATM |

| | ATNS' Stakeholder response | Responsiveness measurement |
|---|---|---|
| | • Enabling partnerships through continual lobbying | • Deliverables as per agreements and MOUs |
| | • Information sharing and collaborations on safety training and ATM.<br>• Critical stakeholder workshops | • Improved working relationships and synergy |
| | • Collaborations on training<br>• Partnerships on VSAT<br>• Demonstration of value to IATA members<br>• Sponsorship of IATA Safety Conferences | • Increase in IATA trainees and proof of endorsement in the region as regional trainer<br>• Retention of VSAT networks<br>• Cooperation in ATM initiatives |
| | • Use forum as source of customer feedback – e.g., OPSCOM forum to bring together key stakeholders and users that ATM serves. | • Alignment of our services with user expectations |
| | • Share plans and align strategies to national strategies<br>• Keep Shareholder informed of plans and actions | • Open channels of communication<br>• Support for changes that improve ATM services |
| | • Lobbying and reporting | • Maintaining open lines of communication leading to sustainable relationships |
| | • Talent sourcing, reward and development | • Employee satisfaction and skills retention |
| | • Procure ATNS services and products | • Contract signing |
| | • Share product and service information through sound media relations | • Improved media relations |
| | • Share plans and information on ATNS's future growth and service offerings | • Improved global working relations |
| | • Brochures to schools and activation through social media<br>• Bursary and learnership scheme | • Improved learner registration at the ATA and subsequent recruitment into the ATNS workforce |
| | • Advertising through website | • Trained individuals accessing the job market |
| | • Share plans and information on ATNS's future growth and service offerings | • Improved business and working relations |
| | Share plans and information on ATNS's future growth and service offerings | No audit findings related to aviation safety |
| | ATNS signing MOU | Improved working relations |

### Continuous safety improvement and implementation of ATNS' Safety Management Plan

Safety is the first and overriding priority in air traffic management to ensure safety service provision to our customers and safe operations for our employees, partners, suppliers and the ATM community. As such, ensuring safety in our operations remains paramount and is not negotiable. ATNS is committed to continuous improvement of its safety performance through the provision of resources, leadership and management to enable the achievement of safety objectives. We acknowledge the fact that safety performance is dependent upon human and organisational performance factors, and to this end our safety action plans are being implemented and continually improved to respond to real-time demands of the operational environment.

Organisational performance factors are being addressed through our continuous improvements in management, procedures, processes and systems, while human performance factors are addressed through efforts aimed at addressing human error and improving staff morale and motivation.

There were 30 safety event attributable to air traffic service as at 31 March 2016. This has resulted in a safety event ratio of 2,73 safety events per 100,000 movements. Although the safety event ratio is above the Board target, we are confident that the current and planned safety interventions will return this ratio to within acceptable levels.

Safety action plans are created annually and consider the findings of operational analyses. The latter includes the identification of hazards and gaps, as well as factors contributing to previous safety events and new applicable operational safety concepts. In addition to the annual safety action plan, which we formally develop in terms of our safety management system, there are continuous adjustments and additions to the plan in response to periodic operational demands. ATNS continues to improve the process of safety investigation and related data analysis to ensure that remedial action plans flowing from this process are effective in reducing the recurrence of these events. In addition to the national safety actions, each unit has its own local safety-related actions to manage and improve safety.

While there are dedicated and focused actions to address human performance failures and organisational factors, it is important to note that factors contributing to safety events cannot be entirely eliminated. The Company is committed to proactively and continuously managing the safety drivers in a systematic way.

### Regional Airport Safety Programme

Differences exist in the realms of resource allocation and support between the Regulated Airport Service Providers, and those of the Non-regulated Contract Parties and outsourced Airport Management Service Providers. This introduces various organisational risks. In some cases, lack of or inadequate service provision contracts hamper the liaison and partnerships required to drive safety programmes. A Regional Airport Safety Programme will assist in streamlining contractual terms and coordinating resource allocation and service provision between the various service providers.

### Safety metrics

ATNS has introduced strategic safety objectives which are measurable and linked to the major components of the ATNS SMS. The strategic safety objectives provide practical expression to the Company's safety management expectations. They provide the benchmark reference against which the Regulator, the aviation industry and the public can determine the safety performance of the organisation. Safety performance assurance provides the means by which ATNS can verify that it is meeting its safety performance targets. To do this, data must be collected and analysed to enable the achieved level of safety performance to be assessed. In addition, an effective monitoring programme increases the probability of detecting any weaknesses in the system's defences before an active failure leads to a serious safety occurrence or accident.

Identifying weaknesses in the system's defences requires more than the collection of data and the production of summary statistics. The underlying causes of reported occurrences are not necessarily immediately apparent. Hence, an investigation of occurrence reports – and any other information concerning possible hazards – should go hand-in-hand with safety performance assurance. Safety

performance assurance and investigation activities play both a reactive and a proactive role in the safety management system.

The following safety metrics are currently being utilised within ATNS to help identify the required safety performance indicators and targets:

- Safety Ratio;
- Separation standards based on IFR hours; and
- Risk Safety Index (RSI).

### Safety Ratio

The safety ratio relates to the number of safety events attributed to ATNS per 100,000 movements, based on total tower movements i.e. arrival, departure, training and over-flight statistics.

### Separation standards based on IFR hours

ATNS aims to provide safe operation and application of separation standards based on Instrument Flight Rule (IFR) flight hours. In air traffic control, separation refers to the concept of keeping aircraft outside a minimum distance from each other to reduce the risk of collision and to prevent accidents. The overarching value is represented by the number of 'losses of separation' related to aircraft being provided with a service. This measure can be compared to the same metric obtained from the Civil Air Navigation Services Organization (CANSO) and serves to support the benchmarking of safety performance.

## Supply-chain practices

ATNS' service to its customers is dependent on the quality of services and products it receives from its suppliers. Our choice of products and services in turn impact on the environment in which we operate.

ATNS continues to refine its procurement systems by focusing on holistic and integrated Supply Chain Management (SCM). Accordingly, we aim to further promote Enterprise Development (ED) through the up-stream supply chain, thereby stimulating growth for small, medium and micro enterprises (SMMEs). Our equipment requirements and, hence, our infrastructure development, is informed by regulatory requirements at a global level, as well as enabling new technologies and the need to address the specific requirements of the air traffic management (ATM) community. In this context, our approach to technology sourcing is to engage the expertise of both local and global suppliers. Our procurement policies are, however, geared towards localisation and we have specific targets to transform the provision of aviation-related services.

The Procurement Committee oversees the ATNS capital expenditure and ensures that ATNS's procurement and provisioning systems are fair, equitable, transparent, competitive and cost-effective.

## Learnership programmes

ATNS aims to implement interventions to address key societal challenges, thereby building a meaningful legacy for the Company within the communities where it operates. In this context, ATNS runs the ATS Bursars Engineering Learnership programmes at its Aviation Training Academy. Successful students from the learnership pipeline usually feed into the pool of qualified engineering technicians and junior systems engineers.

## ATNS Corporate Social Investment (CSI) Strategy

ATNS's commitment to expanded social transformation is expressed in its community development programmes. ATNS's Corporate Social Investment (CSI) aims to empower and uplift those most vulnerable in society. The focal point of these initiatives is to ensure long-term social sustainability amongst communities identified and assisted by ATNS.

ATNS's Corporate Social Investment Strategy is further driven by the Company's requirement to align its strategy to national socio-economic developmental imperatives; as well as national Government outcomes and the DoT's departmental outcomes.

ATNS has adopted the promotion of mathematics and physical science to drive its flagship projects, thereby attempting to increase the pool of maths and science learners that ATNS can attract and train as Air Traffic Controllers. The beneficiary target is from Grade 10-12.

As a technology-driven organisation, ATNS envisages that its CSI strategy, once embedded, will be directed to prioritise CSI initiatives which encourage research and technology development. The organisation's future CSI focus on technology will be driven through the R&D forum developed in 2012 known as Avi Afrique and will continue to explore new initiatives aligned with the Company's strategy.

## Performance against targets

| **Material issue: Safety service provision** | |
|---|---|
| **Why it matters** | **Key aspects of our management approach** |
| ATNS's business is firmly anchored in aviation safety, and specifically safe, secure and cost-effective air transport. This prioritisation of safety has extended ATNS' sphere of influence across South Africa's borders in Africa. A key principle for the Africa expansion strategy is to promote enhanced traffic safety on the continent. Traditionally Africa's air traffic safety records have been below acceptable international standards due to poor infrastructure and skills limitations. With the steady increase in air traffic due to trade and passenger movements in and between the African states, safety will remain a critical objective for all ANSPs and one which ATNS is obliged to address. | • Continuous safety improvement and implementation of ATNS' Safety Management Plan.<br>• Proactive stakeholder management. |

| Target for 2015/16 | What we achieved in 2016 | Our focus for 2017 |
|---|---|---|
| • Risk associated with safety events at a level of 40 or higher in accordance with the Risk Assessment Tool: 2,0 safety events per 100 000 air traffic movements. | • 2,73 safety events per 100 000 air traffic movements. | • Risk Safety Index (RSI) equal to or greater than 48. |
| • operation and application of separation standards based on IFR flight hours to equate to 99,995% and an error margin of 0,005%: 99,995% successful safe operation and an error margin of 0,005%. | • 99,993% successful safe operation and an error margin of 0.007%. | • 99,995% successful safe operation and an error margin of 0,005%. |

| Material issue: Supply chain practices | |
|---|---|
| **Why it matters** | **Key aspects of our management approach** |
| ATNS' service to its customers is dependent on the quality of services and products it receives from its suppliers. Our choice of products and services in turn impact on the environment in which we operate. ATNS continues to refine its procurement systems by focusing on holistic and integrated Supply Chain Management (SCM) to ensure our relationships with suppliers are mutually beneficial, ethical and fair.<br><br>See additional performance information on how ATNS aims to create broader economic value through its supplier development practices in the section on Financial Capital on page 93. | • ATNS procurement practices.<br>• Proactive stakeholder management.<br>• Sound procurement practices.<br>• ATNS Corporate Social Investment (CSI). |
| **Highlights** | |
| • Supplier roadshows held in Cape Town, Durban and Johannesburg.<br>• Overall 20 Engineering Service Providers identified through set criteria to participate in a pilot incubation programme. | |

| Material issue: Skills development within communities where we operate | | |
|---|---|---|
| **Why it matters** | **Key aspects of our management approach** | |
| Enhancing skills – particularly maths, science and engineering competencies – within the communities where we operate is a key performance area (KPA) for ATNS' Shareholder, the Department of Transport. This material issue is encompassed under the KPA banner of addressing societal challenges, thereby building a meaningful legacy for ATNS and the communities in which we operate. | • Proactive stakeholder management.<br>• ATNS Corporate Social Investment (CSI) Strategy.<br>• Learnership programmes. | |
| **Target for 2015/16** | **What we achieved in 2016** | **Our focus for 2017** |
| • Trained ATS and engineering learnerships: ATS: 60. | • ATS: 74. | • ATS: 80 |
| • Engineering Learnerships: 6. | • Engineering Learnerships: 6. | • Engineering Learnerships: 6. |
| • ETS - GEDP 10. | • ETS - GEDP: 10. | • ETS – GEDP 10. |
| • Unemployed graduates trained: 5. | • Unemployed Graduates trained: 8. | • Unemployed Graduates trained: 8. |

| Material issue: Quality community projects | |
|---|---|
| **Why it matters** | **Key aspects of our management approach** |
| ATNS's commitment to expanded social transformation is expressed in its community development programmes. ATNS's Corporate Social Investment (CSI) aims to empower and uplift those most vulnerable in society. The focal point of these initiatives is to ensure long-term social sustainability amongst communities identified and assisted by ATNS. | • Proactive stakeholder management.<br>• ATNS Corporate Social Investment (CSI) Strategy<br>• Learnership programmes. |
| **Highlights** | |
| • Total CSI expenditure: R1,426, 576 is above the 1% of Net Profit After Tax target. | |

## Performance commentary

### ATNS Safety ratio

A total of 30 safety events recorded for the year against total movements of 1,098,137 for the year.

Root causes for the majority of events related to human factors such as workload, situation awareness, information processing and decision-making errors. External factors such as weather phenomena, recreational flights in the airspace, airspace design, complex traffic scenarios also contributed. Further contributing factors included visual monitoring failures and the misjudgement of aircraft radar information.

In the fourth quarter, the safety ratio had decreased from 2,90 safety events per 100 000 in the third quarter to 2,73 per 100 000 (March 2016).

The table below provides a detailed view of safety incidents against air traffic movements.

TABLE 39: SAFETY INCIDENTS RELATIVE TO AIR TRAFFIC MOVEMENTS

| April 2015 to September 2015 | April 2015 | May 2015 | June 2015 | July 2015 | August 2015 | September 2015 |
|---|---|---|---|---|---|---|
| ATS related safety events | 4 | 3 | 3 | 4 | 1 | 0 |
| Total movements | 91,424 | 103,256 | 95,296 | 93,808 | 95,903 | 88,951 |
| Total TFC change month-to-month (+/-) | (6,39%) | 12,94% | (7,71%) | (1,56%) | 2,23% | (7,25%) |
| ATC SE per 100,000 movements | 3,21 | 3,19 | 3,28 | 3,21 | 3,21 | 3,13 |

| October 2015 to March 2016 | October 2015 | November 2015 | December 2015 | January 2016 | February 2016 | March 2016 | Total |
|---|---|---|---|---|---|---|---|
| ATS related safety events | 3 | 4 | 0 | 4 | 3 | 1 | 30 |
| Total movements | 97,707 | 90,519 | 79,554 | 82,177 | 87,557 | 91,985 | 1,098,137 |
| Total TFC change month-to-month (+/-) | 9,84% | (7,36%) | (12,11%) | 3,30% | 6,55% | 5,06% | – |
| ATC SE per 100,000 movements | 3,29 | 3,00 | 2,90 | 3,00 | 2,72 | 2,73 | – |

## Separation standards based on IFR hours

During the 4th quarter of the year, ATNS experienced 6 IFR/IFR losses of separation. These separations related to aircraft that were airborne and on IFR flight plans. This equated to a successful safe operation and application of separation standards of 99,993% and an error margin of 0,007% based on 277,275 IFR flight hours.

## Risk safety matrix

ATNS ended the financial year by maintaining a risk safety index for the year below the Company's target of 48. The RSI performance achieved for both Quarter 3 was 45 and Quarter 4 was 43.

## Learnership programmes

ATNS runs programmes for ATS Bursars and Engineering learnerships at its Aviation Training Academy. Overall, 74 bursars were trained during the year against a target of 60 for the year.

The Company further facilitated the development of engineering talent by offering experiential learning opportunities in the form of learnerships and graduate development programmes. As at 31 March 2016, six Engineering Learners and 10 Engineering Graduates participated in learnership programmes. ATNS also enrolled eight unemployed graduates in a development programme in different disciplines across the business.

TABLE 40: ATS BURSARS PER PROVINCE FOR 2015/16

| Province | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| | African | Coloured | White | Indian | African | Coloured | White | Indian |
| Eastern Cape | 4 | 1 | 0 | 0 | 6 | 1 | 0 | 0 |
| Free State | 2 | 0 | 0 | 0 | 7 | 0 | 0 | 0 |
| Gauteng | 18 | 1 | 0 | 1 | 14 | 0 | 0 | 1 |
| Limpopo | 5 | 0 | 0 | 0 | 10 | 0 | 0 | 0 |
| Mpumalanga | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| **Total** | **30** | **2** | **0** | **1** | **39** | **1** | **0** | **1** |

## Supply-chain practices

ATNS facilitated national roadshows to source service providers that meet the Company's Preferential Procurement requirements (50% black owned and or 30% black female owned). There was an overwhelming response from service providers, with workshops conducted in Cape Town, Durban and Johannesburg. ATNS's Operations Technology department made a detailed presentation to highlight services that ATNS most requires and the legislation governing the Aviation space. The Enterprise and Supplier Development domain also outlined the B-BBEE requirements that ATNS Exco and Board set.

Following the workshops, ATNS selected 20 Engineering Service Providers - using set criteria - to participate in a pilot Incubation programme that is intended to prepare these suppliers to participate in the Aviation sector and to compete meaningfully with multinationals that are already operating in this space.

## Community projects

ATNS continued to create and sustain long-term social value through its CSI initiatives by committing to the positive transformation of our society. As part of our social transformation strategy, education is seen as a fundamental tool which plays a critical role in addressing socio-economic challenges within communities. In particular, ATNS has adopted the promotion of mathematics and physical science as its flagship project.

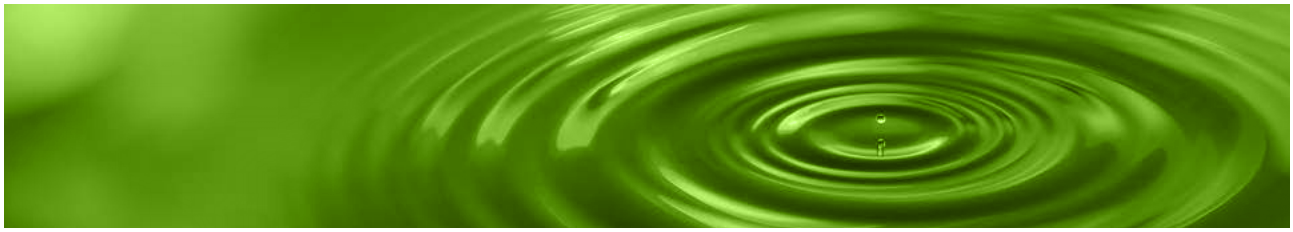
In support of Government's socio-economic development objectives, ATNS's total spend on Corporate Social Investment (CSI) for 2015/16 was R2,122,705.61, which contributed to the Company's achievement of a Level 5 B-BBEE rating.

The following CSI beneficiaries were identified for 2015/16 financial year:

- Colesberg Combined School in Colesberg, Northern Cape Province.
- Selowe Primary School in Silvermine, Limpopo Province.
- Ramohlakana Secondary School in Driekopies, Limpopo Province.
- Mgezeni Technical School in Empageni, KwaZulu Natal Province.

TABLE 41

| Project name | Project scope | Supplier | BEE point score | Budget spent (R) |
|---|---|---|---|---|
| Colesberg Combined school | ICT infrastructure | Mabocor Facilities and Meso Systems | 100% | 313,560.61 |
| Selowe Primary | ICT infrastructure | Molokwana Trading and Meso Systems | 100% | 157,423.46 |
| Ramatlhakana | Renovations | | 100% | 82,150.00 |
| | | | | 107,700.00 |
| | Science Lab | Meso Systems | | 349,101.22 |
| | ICT infrastructure | Meso Systems | | 157,423.46 |
| | Variation Order | Molokwana Trading | 100% | 59,223.00 |
| Mgezeni ICT | ACSA joint project | ACSA | | 200 000 |
| | | | **Total** | **1 426, 576.74** |



# Natural capital

## Managing natural capital value

ATNS operates within a global regulatory environment established through the International Civil Aviation Organization (ICAO) – which sets operational and environmental Standards and Recommended Practices (SARPS) for participating states. South Africa is a signatory to the Chicago Convention, which established ICAO as a specialised agency of the United Nations. According to ICAO, air traffic growth expands two-fold every 15 years; insufficiently supported by optimal regulatory and infrastructure frameworks, this growth can lead to an increase in both safety risks and negative environmental impacts. As air traffic movements are expected to increase, flexible optimisation of the airspace is required to ensure that safety and an operationally efficient environment are achieved. The aviation industry's impacts on the environment are evident globally and appropriate legislative frameworks are being adopted by the ATM sector world-wide.

ATNS supports the activities of ICAO's technical Committee on Aviation Environmental Protection (CAEP) in establishing global standards and recommendations for minimising the impact of aviation on the environment, and specifically the reduction of airspace noise and improvement of airspace air quality. A reduction of aviation $CO_2$ emissions can contribute towards keeping global mean surface temperatures below a 2-degree increase.

ATNS recognises that as an ANSP, it has an influence on carbon emissions from aircraft, mainly relating to the efficiency of the ATM network. ATNS further recognises the need to address GHG emissions from aviation activities, and that this requires the active engagement and cooperation of the Company and its various stakeholders.

ATNS aims to promote environmental sustainability through continuously improving air traffic management practices. In aligning with the ASBU concept, ATNS is able to promote various operational efficiencies, including fuel efficient routing, optimal traffic flow management, Performance-Based Navigation (PBN) and attention to fuel optimal speed control. By continuously improving these processes, ATNS has an opportunity to provide added value to airspace users through a decrease in fuel usage, a reduction in fuel costs, and reduced CO2 emissions.

### Material natural capital value outcomes

- Reducing $CO_2$ emissions.
- Promoting sound management of natural resources

### Material issues

- Managing carbon emissions.
- Managing natural and non-renewable resources:
  - Electricity and fuel.
  - Airspace quality.
  - Biodiversity and protected habitats.

### Approach to managing and preserving natural value

- Managing ATNS's ecological footprint.
- Implementation of Aviation System Block Upgrades (ASBU).
- Implementation of Performance-Based Navigation (PBN.

### Implementation of Aviation System Block Upgrades (ASBU)

ATNS manages carbon dioxide emissions from aircraft through efficient air traffic management and operational efficiency. Operational efficiency is enhanced through the implementation of the ASBU concept that furthers its aims through:

- Maintaining and enhancing aviation safety.
- Harmonising air traffic management improvement programmes.
- Removing barriers to future aviation efficiency and environmental gains at reasonable cost.
- Improving airspace efficiencies.
- Procedure design.
- Oceanic random routing areas.
- Reduced vertical separation minima (RVSM).
- Air Traffic Flow Management (ATFM) tool: balancing demand and capacity.
- Collaborative decision-making (CDM).
- The INSPIRE initiative.
- Sustainable energy management.
- Sustainability and Climate Change Strategic Plan.

### Implementation of Performance-Based Navigation (PBN)

Performance-based, fuel-efficient flying navigation utilizes the improved navigation capability of aircraft to enable more accurate operations in the departure, en-route and arrival phases of flight. The enhanced navigation capability allows for reduced separation between aircraft and facilitates optimum trajectories, resulting in reduced fuel burn and less CO2 and noise emissions.

PBN is helping the global aviation community to reduce aviation congestion, conserve fuel, protect the environment by reducing emissions, reduce the impact of aircraft noise and maintain reliable, all-weather operations, even at the most challenging airports. It provides operators with greater flexibility and better operating returns while increasing the safety of regional and national airspace systems.

ATNS developed a National PBN Roadmap and National PBN Implementation Plan in cooperation with the ATM Community.

ATNS currently has PBN procedures at most of the international airports it services. The full implementation of PBN will be realized by 2025, where all the international airports and most domestic airports (where operationally practical) will have procedures that will assist airlines to reduce operational costs and CO2 emissions.

### Improve airspace efficiencies

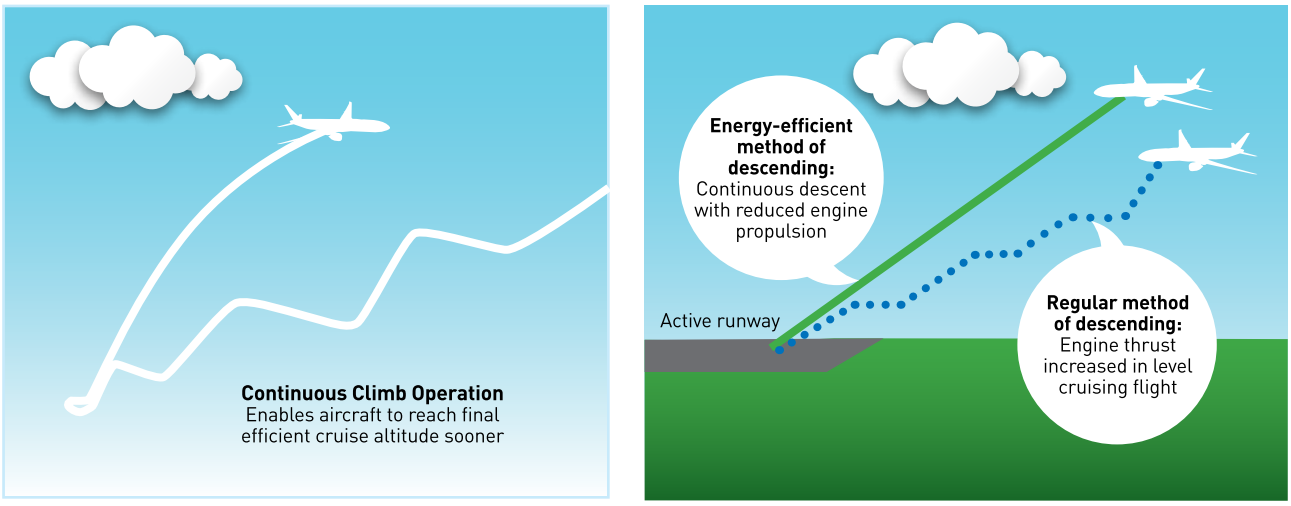
ATNS reviews the design and operational efficiencies of airspace in order to improve efficiencies relating to optimum trajectories and, therefore to reduce emissions.

### Procedure design

ATNS applies a design philosophy of 'clean speed arrivals and departures' and shortened routings, whenever flight procedures are being developed. The term 'clean speed' indicates that the aircraft flies at a speed and power setting that does not require the use of additional control surface (i.e., flaps, slats, and so forth). The ASBU initiatives of Continuous Climb Operations (CCO) and Continuous Descent Operations (CDO) are applied to all new designs as a matter of course.

The objective of CDO is to reduce aircraft noise and gaseous emissions at airports and to save fuel consumption without compromising on flight safety. Continuous Climb Operations (CCO) is an aircraft operating technique facilitated by the airspace and procedures design and assisted by appropriate ATC procedures. CCOs do not require specific air or ground technology. They are derived from aircraft operating techniques aided by the appropriate airspace and procedure design. Since a large proportion of fuel burn occurs during the climb phase, enabling an aircraft to reach and maintain its optimum flight level without interruption will optimise fuel efficiency and reduce emissions. CCO can also reduce noise, while increasing flight stability and the predictability of flight paths for both controllers and pilots. All flight procedure designs are subjected to the ICAO PBN process.

FIGURE 16: CONTINUOUS CLIMB OPERATIONS (CCO) AND CONTINUOUS DESCENT OPERATIONS (CDO)




### Oceanic random routing areas

ATNS has been instrumental in implementing random routing within the Atlantic and Indian Ocean areas. This initiative allows aircraft to make optimum use of upper winds in their route planning and execution, enabling higher efficiencies and reduced fuel burn, with less CO2 emissions. ATNS has implemented User Preferred Routes (UPR) in both the Indian and Atlantic Oceanic regions under its jurisdiction.

### Reduced vertical separation minima (RVSM)

The RVSM initiative allows for aircraft to operate at optimised cruising levels with reduced vertical separation standards, depending on the aircraft and flight crew certification. RVSM contributes significantly to reduced fuel burn and the reduction of emissions. ATNS continues to provide regional monitoring services and supports the RVSM project management team with post-implementation review and reporting services.

### Air Traffic Flow Management (ATFM) tool: balancing demand and capacity

The Central Airspace Management Unit (CAMU) utilises numerous techniques at the strategic and pre-tactical operational planning phase to balance demand and capacity so as to minimise potential delays in the national airspace system. These include the allocation of arrival and departure slots at slot-coordinated airports and, thereafter, dynamic allocation of calculated take-off and arrival times on the day of operations. These two techniques reduce delays resulting from operational and weather events; and as a consequence, reduce the need for aircraft to hold on the manoeuvring area with engines running, which in turn contributes to the reduction in GHG in the airport environment.

### Collaborative decision-making (CDM)

The organisation's use of collaborative decision-making (CDM), also known as A-CDM allows for the implementation of a collaborative set of applications that permit the sharing of surface operations data among different operators at airports. A-CDM aims to improve the management of surface traffic, leading to reduced delays on movement and manoeuvring areas. Apart from the enhanced safety, efficiency and situational awareness gained, A-CDM contributes to reduced taxi time, reduced fuel and carbon emissions, and reduced aircraft engine run time.

### The INSPIRE initiative

As part of its on-going commitment towards reducing GHG emissions, ATNS is one of the founding members of the Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE). The initiative is a partnership with airlines, ANSPs and airport partners to identify ways to reduce aviation's impact on the environment. The INSPIRE partnership is intended to be a collaborative network of partners and peer organisations, dedicated to improving the efficiency and sustainability of aviation.

INSPIRE aims to support operations in three distinct regions:

- Southern Africa – Australia/South East Asia
- Arabian Gulf – Australia
- South-West Indian Ocean – Arabian Gulf

The partners under INSPIRE are committed to working closely with airlines and other stakeholders in the region in order to:

- Accelerate the development and implementation of operational procedures to reduce the environmental footprint for all phases of flight on an operation by operation basis from gate to gate;
- Facilitate world-wide interoperability of environmentally friendly procedures and standards;
- Capitalise on existing technologies and best practices;
- Develop shared performance metrics to measure improvements in environmental performance of the air transport system;
- Provide a systematic approach to ensure appropriate mitigation actions with short, medium and long-term results; and
- Communicate and publicise INSPIRE environmental initiatives, goals, progress and performance to the global aviation community, the press and the general public.

ATNS continues to explore additional initiatives aimed at reducing emissions in the Atlantic and continental areas.

### Sustainable energy management

In an effort to reduce the Company's ecological footprint ATNS has committed to conserving natural resources through more sustainable use of energy and environmentally aware operations. For example, when designing procedures and selecting sites for ground-based equipment, ATNS takes the following into consideration as required by the National Environmental Management Act (NEMA) and Civil Aviation regulation:

- Required legal and other requirements (National, provincial, local, international agreements and laws);
- National, provincial and local protected areas which include: protected areas and sensitive biodiversity areas and heritage sites;
- Noise sensitive areas such as hospitals, schools and religious areas.

### Sustainability and Climate Change Strategic Plan

Our Sustainability and Climate Change Strategic Plan provides an overview of our approach to managing long-term environmental sustainability in the organisation. We will continue to use our best efforts to embed a culture of sustainability within the organisation by prioritising material environmental aspects, improving performance information, setting appropriate environmental KPIs, sharing information on environmental impacts and impeccable business practices with our employees and engaging internal and external stakeholders in our improvement initiatives.

ATNS envisions creating and protecting natural capital value through minimizing the environmental impact of civil aviation activities and enhancing environmental stewardship.

## Performance against targets

| Material issue: Reducing $CO_2$ emissions | |
|---|---|
| **Why it matters** | **Key aspects of our management approach** |
| Reducing $CO_2$ emissions positively addresses climate change. ATNS recognises that the risks posed by climate change can negatively affect the Company's goal of ensuring safe and efficient air transport. As an ANSP ATNS has an influence on carbon emissions from aircraft, mainly relating to the efficiency of the ATM network. As an ICAO member state ATNS supports and complies with standards and regulations set out to reduce the harmful impact the aviation sector has on the natural environment. Reducing $CO_2$ emissions is aligned to one of the four 'relevant national outcomes' identified by the DoT – "an increased contribution of transport to environmental sustainability". | • Implementation of Aviation System Block Upgrades (ASBU).<br>• Implementation of Performance-Based Navigation (PBN).<br>• Improve airspace efficiencies.<br>• Procedure design.<br>• Oceanic random routing areas.<br>• Reduced vertical separation minima (RVSM).<br>• ATFM tool: balancing demand and capacity.<br>• Collaborative decision-making (CDM).<br>• The INSPIRE initiative. |

| Target 2015/16 | What we achieved in 2016 | Our focus for 2017 |
|---|---|---|
| • Calculate ATNS Carbon Footprint Inventory for 2015/16 FY. | • Calculated and reported on ATNS Carbon Footprint 2015/16 with Q1 – Q4 data. | • Calculate and report on ATNS Carbon Footprint 2015/16 quarterly. |

**Highlights**

- Overall annual electricity usage: 20,154,721.16 kWh.
- ATNS's total carbon emissions from Scope 1 sources: 247.24 tonnes $CO_2e$
- ATNS's total carbon emissions from Scope 2 sources: 20,759.36 tonnes CO2e
- ATNS's total carbon emissions from Scope 3 sources (business travel): 3,205.2 tonnes $CO_2e$
- Total fuel usage: 95 965 litres

| Material issue: Managing natural resources | |
|---|---|
| • Electricity and fuel<br>• Airspace quality<br>• Biodiversity and protected habitats | |
| **Why it matters** | **Key aspects of our management approach:** |
| ATNS's approach to conserving natural resources is derived from the organisation's commitment to environmental stewardship. The preservation of natural resources aligns with the Company's commitment to providing safe, secure, efficient and environmentally friendly air traffic solutions, which considers the responsible management of natural resources. The use of energy is material to the organisation and enables ATNS to deliver its services. The Company requires energy and fuel to provide communication, navigation and surveillance services to airlines in order to facilitate the safe movement of aircrafts in the controlled airspace. The failure to manage electricity consumption within the Company's daily operations can lead to inefficient operations and operational cost-increases. | • Harmonise air traffic management improvement programmes.<br>• Remove barriers to future aviation efficiency and environmental gains at reasonable cost.<br>• Improve airspace efficiencies.<br>• Procedure design.<br>• Oceanic random routing areas.<br>• Reduced vertical separation minima (RVSM).<br>• Collaborative decision-making (CDM).<br>• The INSPIRE initiative.<br>• Sustainable energy management.<br>• Sustainability and Climate Change Strategic Plan. |

| Target for 2015/16 | What we achieved in 2016 | Our focus for 2017 |
|---|---|---|
| • Environmental Assessment. Report at year end. | • Environmental Assessment. report compiled. | • Environmental Assessment Report (1 Annual Report at year-end). |

**Highlights**

- Total carbon inventory for the 2015/16 financial year is 25,510.96 tonnes of $CO_2e$.

## Performance commentary

### Measuring ATNS carbon footprint

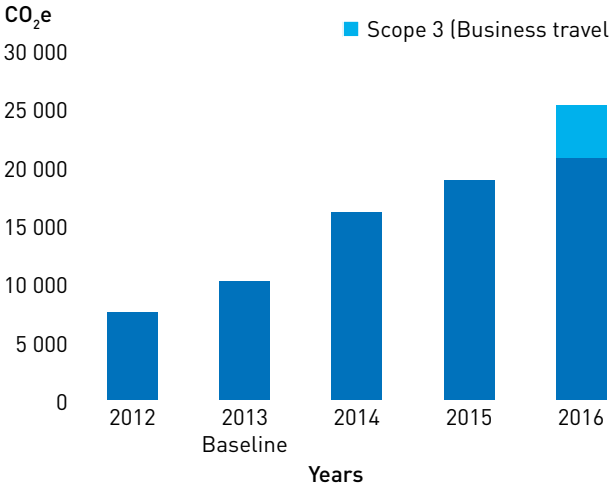
The following initiatives contributed to ATNS's environmental sustainability performance during the year:

- Calculated ATNS's carbon footprint inventory – which included the introduction of accounting for scope 3 emissions.
- Developed an EXCO-approved Environmental Management Policy and Integrated Waste Management Policy.
- Facilitated an internal sustainability and environmental awareness training programme for more than 50% of ATNS employees.
- Implemented a communication strategy around environmental days to increase awareness of environmental issues.
- Established an ATM Environmental Committee to insure optimal integration of air traffic management with environmental sustainability.
- Participated in the South African Civil Aviation Authority (SACAA) Aviation Environmental Protection (AEP) Forum and contributed to the overall State Environmental Protection Plan.

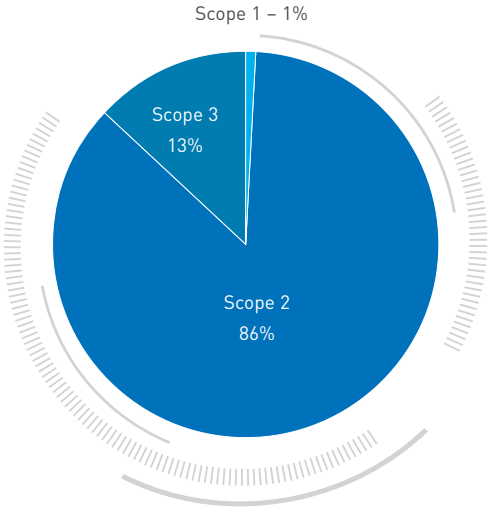
### ATNS overall carbon inventory for 2014/5

ATNS's total carbon inventory for the 2015/16 financial year is 25,510.96 tonnes of $CO_2e$. Approximately 82% of the organisation's carbon emissions relate to electricity consumption, while fuel-related activities account for 1% and business travel accounts for 17% of the emission inventory respectively. This represents an increase from the 2013 carbon inventory baseline of 10,469. The increase is mainly as a result of improved information consolidation from third parties and the inclusion of scope 3 emissions in the current 2015/16 reporting cycle.

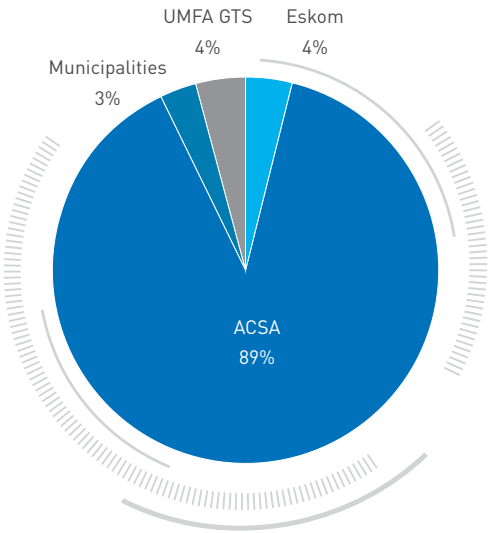
GRAPH 7: ATNS CARBON FOOTPRINT EMISSIONS PERFORMANCE IN RELATION TO 2015 BASELINE YEAR




GRAPH 8: ATNS 2015/16 FINANCIAL YEAR CARBON INVENTORY BY EMISSION SCOPE




GRAPH 9: SCOPE 2 EMISSIONS PER GROUPING 2015/16 FY



### Emission Intensity

'Emission intensity' is a metric to evaluate emissions performance over time and to benchmark performance externally against other similar companies or, internally, between different divisions. Emission intensities are calculated on the basis of total tonne $CO_2$-e per intensity metric produced.

The table below provides a quarterly break-down of ATNS's emission intensity performance for the year.

TABLE 42: QUARTERLY BREAKDOWN OF ATNS'S EMISSION INTENSITY PERFORMANCE FOR 2015/16

| Intensity metric | Q1 2015/16 | Q2 2015/16 | Q3 2015/16 | Q4 2015/16 | Total 2015/16 |
|---|---|---|---|---|---|
| Per employee | 1,180 | 1,203 | 1,220 | 1,221 | 1,221 |
| m² per site | 29,559.40 | 29,559.40 | 29,559.40 | 29,559.40 | 29,559.40 |
| R'b per site | 360.90 | 375.71 | 386.43 | 382.54 | 1,505.58 |
| **Intensity report** | | | | | |
| Employee | 4.06 | 4.50 | 4.37 | 4.47 | 17.20 |
| Area m² | 0.16 | 0.18 | 0.18 | 0.18 | 0.71 |
| Revenue (R billion) | 13.29 | 14.42 | 13.80 | 14.27 | 13.95 |

### Noise reduction

Initiatives introduced to reduce noise in the air traffic environment:

- Flight procedure designs support compliance with noise abatement requirements as per NEMPA
- Noise profiling and noise contours are being considered.
- Application of power setting and climb gradient restriction to support noise abatement.
- Compliance with specific noise abatement rules for individual airports.
- Design of 'clean speed' procedures.
- South African Air Force Baro-VNAV proposal to provide greater access to those Air Force Bases for diversionary purposes.

### Waste Management and Recycling

ATNS' generates waste materials in both the general and hazardous waste streams. In the 2015/2016 financial year, recycling was formally initiated as a Company practice and the initiative was piloted at the ATNS Head Office, OR Tambo Air Traffic Control Centre and the Aviation Training Academy in, with plans to expand onto all ATNS sites countrywide in the 2016/2017 Financial Year.

### Water Management

With the current water crisis in South Africa, ATNS is committed to ensuring that water efficiency is promoted as part of the Company's operational ethos. The ATNS Head Office has incorporated water efficiency measures, including flow-regulated taps and the installation of water tanks.

Similar initiatives have been incorporated in the ATA and OR Tambo Air Traffic Control Centre renovation and upgrade projects to implement water conservation means through flow-regulating taps and the harvesting of rain water.

# REVIEW OF PERFORMANCE AGAINST KEY PERFORMANCE INDICATORS

■ Fully achieved ■ Partially achieved ■ Not achieved

| | Business objectives | Objective measures | Annual performance indicators | Actual 2014/15 | Target 2015/16 | Actual 2015/16 | |
|---|---|---|---|---|---|---|---|
| 1. | TRANSPORT SAFETY AND SECURITY | | | | | | |
| 1.1 | Safety Service provision | Reduce the ATNS Safety ratio | Number of Safety events per 100 000 movements | 3,10 safety events per 100 000 air traffic movements. | 2,0 safety events per 100 000 air traffic movements. | 2,73 safety events per 100 000 air traffic movements. | |
| 1.2 | Safety service provision. | Increase the successful safe operation | Providing successful safe operation and application of separation standards based on IFR flight hours to equate to 99.995% and an error margin of 0.005%. | | 99,995% successful safe operation and an error margin of 0,005%. | 99,993% successful safe operation and an error margin of 0,007%. | |
| 1.3 | Operational Efficiency. | Reduce overall traffic delays. | Average delay per delayed flight. | 12 seconds. | 120 seconds. | 13 seconds. | |
| 1.4 | Operational Efficiency. | Achievement of CNS Systems Availability. | Average CNS Systems Availability. | N/A | C: 99,67%. | C: 99,61%. | |
| | | | | | N: 98,65%. | N: 96,15%. | |
| | | | | | S: 99,77%. | S: 100%. | |
| 1.5 | Ensure commercial sustainability | Ensure financial sustainability. | Meeting financial target as per Budget. | D/E: 0%. | D/E: 10-45%. | D/E: 0%. | |
| | | | | C/A: 6.7:1. | C/A: 2.5:1. | C/A: 6.3:1. | |
| | | | | ROCE: 24,6%. | ROCE: 12,6%. | ROCE: 24,1%. | |
| 1.6 | Performance-based navigation (PBN) ACSA Airports. | Implement ICAO PBN concept in South Africa. | 4 Design Reports for submission to SACAA (RNP APCH) | RNP APCH (Baro-VNAV where operational benefits can be gained) in 100% of instrument runways<br>• Achieved 100%<br>• 9 of the 9 ACSA airport have RNP APCH's | RNP APCH in 100% of instrument runways located at ACSA airports by 31 March 2016. | 4 Design Reports for submission to SACAA (RNP APCH). | |
| | | | Mid-term implementation Target in line with South African PBN Roadmap. | | | | |
| | | | 10 Design Reports for submission to SACAA (RNAV 1SID/STAR) | RNAV 1 SID/STAR for 80% of International airports.<br>• Achieved 80%<br>• 5 of the 6 International ACSA Airports are serviced with RNAV 1 SID/STAR | RNAV 1SID/STAR for 5 (or 80%) international airports (ACSA-owned) by 31 March 2017. | 10 Design Reports for submission to SACAA (RNAV 1SID/STAR. | |
| | | | 8 Design Reports for submission to SACAA (RNAV 1SID/STAR). | RNAV 1 SID/STAR for 70% of busy domestic airports where there are operational benefits | RNAV 1SID/STAR for 1 ACSA Domestic airport where there are operational benefits by 31 March 2017. | 8 Design Reports for submission to SACAA (RNAV 1SID/STAR) | |

■ Fully achieved ■ Partially achieved ■ Not achieved

| | Business objectives | Objective measures | Annual performance indicators | Actual 2014/15 | Target 2015/16 | Actual 2015/16 | |
|---|---|---|---|---|---|---|---|
| 2. | INFRASTRUCTURE DEVELOPMENT AND HIGH-LEVEL INVESTMENT PLAN FOR TRANSPORT | | | | | | |
| 2.1 | Development of optimized and efficient aviation infrastructure in a cost-effective manner. | Adoption and approval of CAPEX Implementation of CAPEX 2015/16 Strategic plan Roadmap Operational plan | Compliance with the acquisition and implementation of milestones of the CAPEX plan. | R60,11 million. | R242 million. | R230 million, with additional commitment of R491 million. | |
| 2.2 | Operation of the satellite communication networks SADC VSAT 2 | Optimize revenue and ensure network availability. | Achievement of the revenue and network availability as per SLA Target. | SLA – 99,93%. Revenue: R37,1 million. | SLA – 98,5%. Revenue: R26,8 million. | SLA – 99,97%. Revenue: R47,5 million. | |
| 2.3 | Operation of the satellite communication networks NAFISAT | Optimize revenue and ensure network availability. | Achievement of the revenue and network availability as per SLA Target. | SLA – 99,97%. | SLA: 98,5%. | SLA – 99,93%. | |
| | | | | Revenue: R33.2 million. | Revenue: R26,4 million. | Revenue: R39,01 million. | |
| 3. | THE FIGHT AGAINST FRAUD AND CORRUPTION | | | | | | |
| 3.1 | Comply with relevant legislation, regulation and standards. | 100% compliance | Reports with no material findings from auditors. | ATNS continues to comply with relevant legislation, regulations and standards. | Unqualified audit report. | Unqualified audit report to be achieved for 2015/16. | |
| | | | Sound internal control systems. | No material findings were reported for the period under review. | Zero material non-compliance findings. | Zero material non-compliance findings. | |
| 3.2 | Fraud and whistle-blowing policy | Fighting corruption and promoting good governance. | Matters investigated as per policy timelines. | 9 Whistle Blowing matters were reported. | Resolution of all matters raised within 90 days. | Seven whistle blowing matters were reported for the year. Four were finalised. Three were reported during the last quarter of the year and were under investigation at the end of the financial year. | |

■ Fully achieved ■ Partially achieved ■ Not achieved

| | Business objectives | Objective measures | Annual performance indicators | Actual 2014/15 | Target 2015/16 | Actual 2015/16 | |
|---|---|---|---|---|---|---|---|
| 4. | ENVIRONMENTAL PROTECTION | | | | | | |
| 4.1 | Implementation of environmental plan. | Measure ATNS Carbon footprint. | ATNS annual Carbon footprint inventory report. | ATNS 2014/15 Carbon footprint inventory report. | Calculate ATNS Carbon Footprint Inventory for 2015/16. | Calculated and reported on ATNS Carbon Footprint 2015/16 with Q1 – Q4 data. | |
| | | Human Resources/ training - trained ATNS employees on sustainability and climate change matters. | 311 employees trained, 65.3% achievement against the target. | 312 employees trained – 100% achievement of target. | Deliver environmental awareness training to 50% of ATNS employees. | Delivered Environmental awareness training to 50% of ATNS employees (535 employees trained). | |
| | | Performance assessment | Environmental performance assessments | Baseline environmental assessment/ performance assessment of en-route airspace compiled. | Environmental Assessment. Report at year end. | Environmental Assessment. report compiled. | |
| 5. | TRAINING TO CONTRIBUTE TO JOB CREATION | | | | | | |
| 5.1 | Address societal challenges, thereby building a meaningful legacy for ATNS and the communities in which we operate. | ATS bursaries and engineering learnerships. | Trained ATS and engineering learnerships. | ATS: 80. | ATS: 60. | ATS: 74. | |
| | | | | Engineering learnerships: 12. | Engineering Learnerships: 6. | Engineering Learnerships: 6. | |
| | | | | ETS - GEDP: 9. | ETS - GEDP 10. | ETS - GEDP: 10. | |
| | | | | Unemployed graduates: 5. | Unemployed Graduates: 5. | Unemployed Graduates: 8. | |
| 5.2 | Manage the training pipeline for ATS and technical staff. | Adoption and approval of HC plan as per budget. | Achievement of the numbers as per budget. | ATCO 3: 210. | ATCO 3: 226. | ATCO 3: 211. | |
| | | ATS and TS training plan. | Adoption and approval of training plan. | ATCO 2: 34. | ATCO 2: 37. | ATCO 2: 29. | |
| | | Operational or implementation plan. | Compliance with the milestones of the plans. | ATCO 1: 107. | ATCO 1: 119. | ATCO 1: 115. | |
| | | | | Engineering Technicians: 82. | Engineering Technicians: 74. | Engineering Technicians: 74. | |
| | | | | Engineering Satellite Technicians: 5. | Engineering Satellite Technicians: 5. | Engineering Satellite Technicians: 5. | |
| 5.3 | Review and implement the HR plan to recruit, develop, retain, and reward employees across all disciplines. | Development programmes for all employees, with emphasis on AIC and women. | Training investment as percentage of a Cost to Company. | 3.68% Rand value of salary bill. | 3% Rand value of Cost to Company. | 7.57% Rand value of Cost to Company. | |

Fully achieved Partially achieved Not achieved

| | Business objectives | Objective measures | Annual performance indicators | Actual 2014/15 | Target 2015/16 | Actual 2015/16 | |
|---|---|---|---|---|---|---|---|
| 6. | BROAD-BASED BLACK ECONOMIC EMPOWERMENT | | | | | | |
| 6.1 | Achieve B-BBEE Target. Achieve preferential procurement Target as set by the Transport Charter. | Percentage of discretionary spend on B-BBEE. Total discretionary OPEX budgeted. Total CAPEX budgeted. | Achievement of B-BBEE Target as per the Transport Charter. | Level 2 B-BBEE Status. | B-BBEE level: 3. | B-BBEE level: 2. | |
| | | | | Management Control: 16.00/15.00. | 10 | Management Control: 7.50/10. | |
| | | | | Employment Equity: 3.52/15.00. | 15 | Employment Equity: 13.09/15. | |
| | | | | Skills Development: 16.00/20.00. | 25 | Skills Development: 22/25. | |
| | | | | Preferential Procurement: 17.92/20.00. | 30 | Preferential Procurement: 30/30. | |
| | | | | Enterprise Dev. 15.00/15.00. | 15 | Enterprise and Supplier Development: 12.11/15. | |
| | | | | Socioeconomic Development: 15.00/15.00. | 5 | Socioeconomic Development: 2.81/5. | |
| | | | | Total: 93.44/100.00 | | Total: 87.51/100 | |
| 7. | EMPLOYMENT EQUITY | | | | | | |
| 7.1 | ATS EE Target (AIMO, ATSO, ATCO 1-3). | Achieve representation towards alignment of company staff profile with the demographics of the country. | 7% increase: 2015/2016 | 62,29% ATS AIC | Achieve a target of 58% ATS AIC. | 66,67% ATS AIC | |
| | | | AIC Target | 41,75% ATS female | Achieve a female target of 40% ATS. | ATS female representation: 41,38% | |
| | | | 2% increase: 2015/16 ATS female target | | | | |
| 7.2 | ATNS EE Target. | Increase representation of black (AIC) racial grouping with a particular focus on African and female representation towards creating alignment with the demographics of the country. | 2% increase: 2015/16 AIC. | ATNS AIC: 69,56%. | Achieve a target 72% AIC. | 73,15% AIC. | |
| | | | 1% increase: 2015/16 Female target. | ATNS Female: 44,05%. | Achieve a company target of 46% female representation. | 45,55% female representation. | |
| | | | Target = 1% higher than the National target of PwD. | ATNS PWD: 2,79%. | Achieve a company target of 3,5% for people with disabilities. | 2,79% people with disabilities. | |

# OUTLOOK

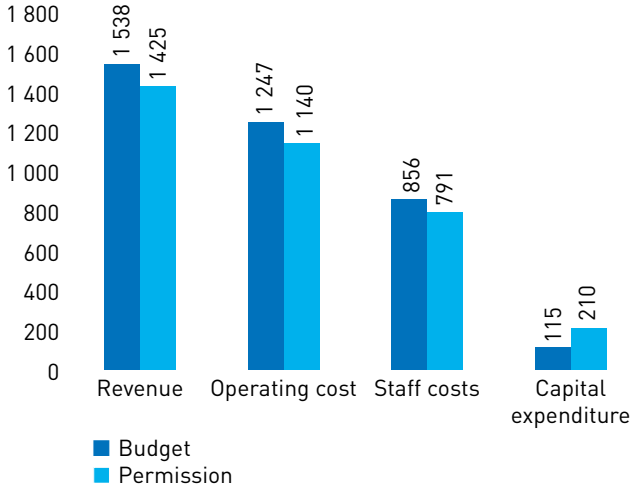
## Ensure long term financial stability

The Permission has a five-year life-cycle. It is issued in the third year of a current Permission, replacing the current Permission from the fourth year onwards. Permissions, therefore, overlap by two years to encourage predictable plans. However, the 2015/16 - 2019/20 Permission does not overlap and runs for a full five-year period. This is due to the delays in appointing the new Regulating Committee (RC). The RC monitors the Permission during its full life-cycle and oversees the application. If required, a correction factor is applied to amend any tariff changes that do not align with actual CPI. The Committee issues an Approach Document at the start of the development of an application for a new Permission, setting out the issues that need to be emphasised in the application.

The 2015/16 - 2019/20 Permission has not yet been issued. ATNS continues to use the zero tariff Permission that was promulgated on 1 April 2015. The full five years of zero tariff increases will be amended and gazetted when the new Permission application process is concluded. The gazette tariff will be implemented pro-rata, taking into account the delays resulting from the postponement.

### Projections for 2016/17

GRAPH 10: PROJECTIONS FOR 2016/17




The coming financial period ending 31 March 2017 is going to be crucial for the Company as it will be the period in which the Permission application for the period 2015 to 2020 will be finalised and issued by the Regulating Committee. The Permission is expected to have a potential claw-back emanating from significant underspending experienced in the previous Permission cycle.

For 2016/17, as shown in graph 10, it is projected that revenue will be 7% above the Permission at R1,5 billion. This is attributable to the anticipated increase in traffic movements and the aircraft service mix.

Operating costs are projected to be 9% above the Permission. This is due to an increase in foreign denominated currency costs as a result of the Rand being weaker than what was projected in the Permission.

Staff costs are projected to be 8% higher than the Permission due to increased numbers of personnel as the Company attempts to ensure a strong pipeline of Air Traffic Controllers. Further, ATNS continues to invest heavily in its employees by affording them study and training opportunities.

## Enhance operational efficiencies in line with global ATM Standards

- Performance-Based Navigation (PBN) is increasingly seen as the most practical solution for regulating the expanding domain of navigation systems. ATNS has been implementing PBN in South Africa over the last few years, achieving the ICAO near- and medium-term targets as articulated in the South African PBN Roadmap. The Company has placed a special emphasis on human factors, especially on training and procedures, as operations increased reliance on appropriate use of flight deck systems. ATNS will be reviewing the entire FAOR international instrument flight procedures and replacing them with PBN procedures. The project was resumed in the first quarter of 2016 and is expected to be completed in the last quarter of 2017.
- ATNS will be one of the key stakeholders in the FACT runway realignment project, which is planned to kick off in late 2016 or early 2017.
- ATNS will complete installation, commissioning and transition into operations of the new national air traffic management system, CAATS (Collaborative Advanced Air Traffic System) in both the Johannesburg and Cape Town Flight Information Regions. On completion the system will be deployed in the area control centres at O R Tambo and Cape Town International Airports as well as the Air Traffic Service Units (ATSU) at King Shaka, Bram Fischer, Lanseria, East London,

Port Elizabeth and George airports. Following operational transition to CAATS we will proceed with the deployment of Electronic Flight Strip (EFS) systems at all other ATSUs operated by ATNS. The EFS system will be integrated with the CAATS system to improve coordination between all ATSUs and automate a number of manual functions at the ATSUs. The automation of manual functions will allow improved utilisation of scarce human resources across our ATM operations.

- ATNS will continue to prioritise the continued delivery of its mandated air navigation infrastructure investments and air traffic management services. The infrastructure and services will continue to comply with South African Civil Aviation Legislation and Regulations as well as with ICAO Standards and Recommended Practices. ATNS will further pursue the implementation of the ICAO Aviation System Block Upgrades as required in our environment and in synchronism with the ICAO Global Air Navigation Plan to ensure that regional air navigation services improvement is coordinated and consistent in the Southern African region.
- In the year ahead, the systems to be deployed will renew and maintain existing services as well as extend and supplement current capabilities. In the context of renewal and maintenance of services the national VHF ground air radio system will be renewed; radar systems together with radomes will be replaced at O R Tambo, Cape Town, Durban and Blesberg; Digital ATIS systems will be replaced at OR Tambo, Cape Town and King Shaka airports; Fibre Optic cables and network systems will be replaced at various airports. In the context of extension and supplementing current capabilities a Wide Area Multilateration system will be deployed across large parts of the Northern and Eastern Border areas which will extend cooperative surveillance capabilities into areas that currently do not have surveillance coverage and DME/DME network systems will be deployed in the terminal areas of OR Tambo, Cape Town, King Shaka, East London, Port Elizabeth and Georg e airports to support continued provision of navigation signals that will support Performance Based Navigation procedures in the event of an outage of or interference with Global Navigation Satellite System signals.
- We will commence with the renovation and refurbishment of our Johannesburg Area Control Centre and Aviation Training Academy facilities to ensure that we continue to meet the expectations of employees and clients in respect of our working and training environments. We will also proceed with the initial development of office accommodation for our corporate office and ATA at our Spartan site with a view to this accommodation being ready for occupation in 2020.

## Develop leadership capability in the ATM space

- In the regional arena we will complete the renewal of the SADC and NAFISAT VSAT network infrastructure and transition from the current to the new VSAT technology platform during the 2016/17 and 2017/18 financial years. We are experiencing some challenges in accessing sites and deploying equipment - in particular in those regions where conflict is prevalent, such as Libya and Yemen; however, with the support of our partners and international organisations such as ICAO we are confident that we will find solutions to the challenges presented.
- ATNS values its leading position in the region and as such we continually seek to adopt innovative technologies to support our own and regional operations. In this context we have entered into a 12-year agreement with Aireon LLC for the deployment and provision of a space based ADS-B service that will supplement and extend our terrestrial surveillance services in continental South Africa and the oceanic airspace under our control. The first satellites in the surveillance constellation will be launched in 2016/17 with test data becoming available in early 2017.
- In terms of regional services ATNS will commence with ATS provision under the terms of a ten-year contract at the new airport on the island of Saint Helena in the Atlantic ocean. This includes the provision of air traffic controllers and an aerodrome simulator on site at the airport to provide ATS services. ATNS will maintain the proficiency of its controllers to deliver the services to the standards required by the United Kingdom Regulating Authority.

## Create a transformative organisation

ATNS recognises that radical economic transformation is crucial if South Africa is to have a meaningful impact in the global arena. Going forward, Broad-based Black Economic Empowerment (B-BBEE) will be further fast-tracked to increase our spending on enterprise and supplier development. Our procurement policies are geared towards localisation and we will continue

to implement specific targets to transform the provision of aviation-related services.

In line with the Employment Equity Act, the current ATNS five-year EE plan encompasses the following objectives:

- Working towards creating a balanced profile of employees within the Company through all occupational categories and levels in the workforce.
- Eliminating any discriminatory practices in terms of race, gender or disability.
- Providing for the company's present and future requirements for skilled staff, in line with its business plan.
- Implementing, monitoring and evaluating appropriate measures aimed at redressing the effects of the past imbalances created by discriminatory employment policies and practices.

Our employee equity targets for the year ahead are as follows:

| Employee category | 2016/17 targets |
|---|---|
| Air traffic service – AIC | 65 |
| Air traffic service – Female | 42 |
| Organisation-wide – AIC | 74 |
| Organisation-wide – Female | 47 |
| PWD | 3 |

## Build a culture of safety

CANSO recommends that safety culture surveys be conducted once every three years. The previous safety culture survey was conducted in August 2014, whereby the proposed CANSO protocol was applied for the ATS department. ATNS also set a new benchmark by developing and validating a short safety culture survey protocol for all support functions within the business. The next corporate survey is scheduled for August 2017.

## Build a skilled and capable employee resource base

- ATNS will target an employee-base of 1 148 employees for the 2016/17 financial year.
- The Company will target 652 ATCs and 295 engineers to be trained by ATA.
- Labour relations are expected to be harmonious, with relative stability given that we concluded a further four year salary agreement with the representative trade union for our air traffic services, technical services and administrative bargaining units. Included in the agreement - where appropriate - is a performance-based pay increase scheme that will serve to support a high performance culture within the Company.

## Manage the organisation's contribution to Climate Change

- ATNS continues to review airspace design and to implement Performance-Based Navigation procedures at various ACSA airports, including Port Elizabeth International Airport, George Airport and OR Tambo International Airport. This will include Radar Navigation (RNAV) 1, Standard Instrument Departures (SIDs) and Standard Terminal Arrival Route (STARs). Every effort will be made to ensure that we achieve full utilisation of Continuous Descent and Continuous Climb Operations.
- Energy efficiency initiatives will continue to be implemented in various CAPEX projects through detailed energy-efficiency specifications to reduce ATNS's carbon footprint resulting from Scope 2 emissions.

## Manage and preserve scarce and vulnerable resources

- ATNS will continue to ensure compliance with NEMA requirements in the business activities and continue to engage stakeholders around natural resources. This includes the continued "greening" of ATNS's offices. "Greening" programmes include responsible waste and energy management.
- The Company will review its Sustainability and Environment Strategy programmes to align with evolving staffing and technology requirements. All staff will be required to participate in the Company's sustainability training programmes.

## Develop enterprise-wide awareness for environmental impacts

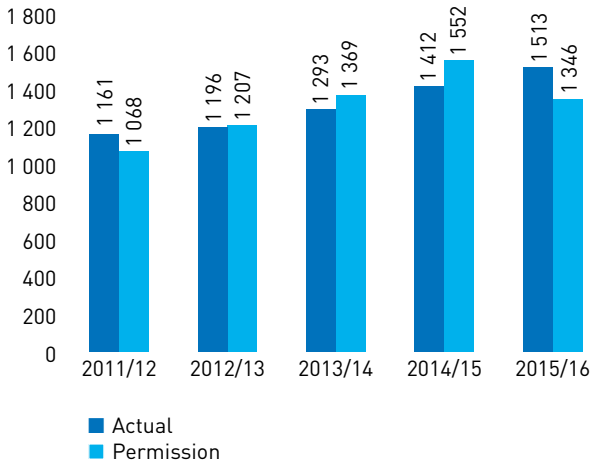
- The Company will target environmental awareness training on an e-learning platform for 25% of ATNS employees.
- The legal and regulatory register will be updated in terms of operational compliance to "green practices".

# CONSOLIDATED FIVE-YEAR REVIEW

## Permission against actual performance from 2011/12 to 2016/17

ATNS's operations are funded from revenue and debt from external markets. Revenue is used to fund operating costs, while debt funds capital expenditure. A debt/equity ratio of 45% is the maximum target to maintain a balance between external and internal funding. The year-on-year performance of revenue, operating costs, staff costs and capital expenditure compared to the Permission is outlined below:

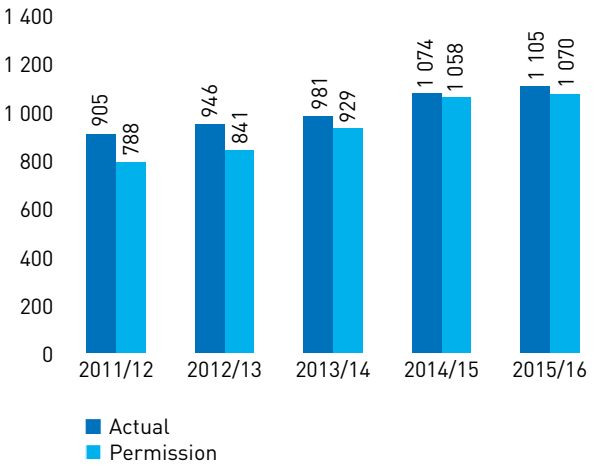
### GRAPH 11: REVENUE: HISTORICAL COMPARATIVE VIEW




A major input into revenue is air traffic movements. The Company projects its revenue based on the expected air traffic movement growth. The air traffic movement has a high correlation to Gross Domestic Product (GDP) at approximately 80%. There is a time lag between a change on GDP and the impact on air traffic movements of between 12 and 18 months. As illustrated in the graph above, revenue was expected to grow from R1,0 billion to R1,3 billion by 2015/16, giving a compound annual growth rate (CAGR) of 4,7%. However, the actual growth was R1,5 billion representing the CAGR of 5,4% (0,7% above Permission).

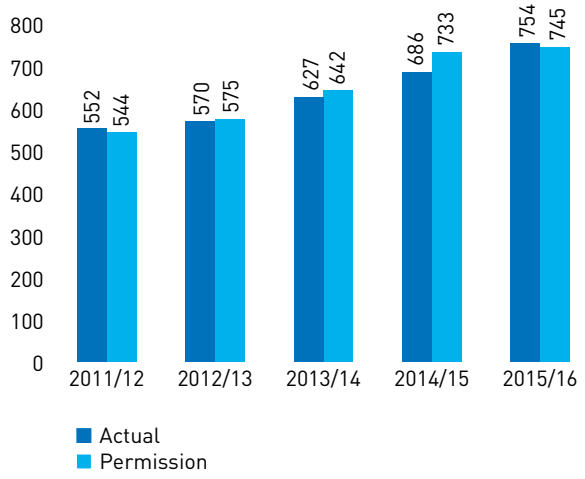
The increase in actual revenue to the Permission was due to higher traffic movements and the aircraft service mix. Most airlines are utilising larger aircrafts, resulting in increased revenue as margins are slightly higher on larger aircrafts. This trend is expected to continue at a moderate rate. The inherent risk of air traffic movements realising as projected will remain. This will compel ATNS to look for other revenue streams over and above the regulated revenue.

### GRAPH 12: OPERATING COSTS: HISTORICAL COMPARATIVE VIEW



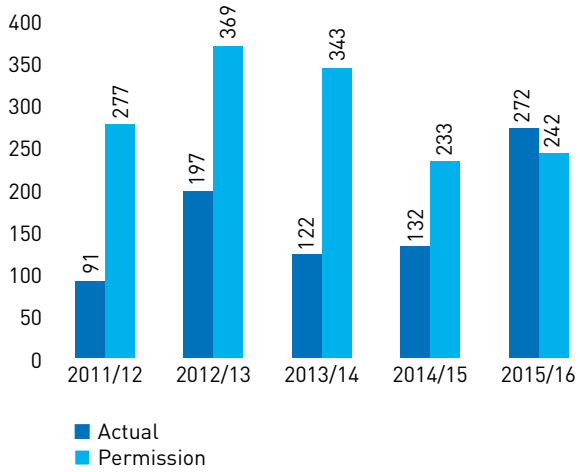

The actual CAGR on operating costs from 2011/12 to 2015/16 was 2% below the Permission at 4%. Operating costs remained high at around 76% of revenue, and this is expected to continue into the future. A significant portion of this relates to staff costs at around 49%, while approximately 10% of operating costs have a foreign currency component. The foreign currency component exposes the Company to foreign exchange fluctuations risk. Different options to counter this risk exposure have been considered, including obtaining foreign exchange contracts to cover material exposure.

### GRAPH 13: STAFF COSTS: HISTORICAL COMPARATIVE VIEW



Approximately 60% of staff costs relate to air traffic control services. ATNS competes with its international peers for air traffic controllers, resulting in high salaries offered to retain the air traffic controllers. The Company has considered other mitigating options, such as clearing the congestion in the training pipeline to have a sufficient pool of air traffic controllers. Staff costs will remain high for the foreseeable future, irrespective of the significant anticipated investment in technology.

## GRAPH 14: CAPITAL EXPENDITURE: HISTORICAL COMPARATIVE VIEW




The actual compound average growth rate on capital expenditure was a positive 24%, compared to the negative projection of 3% in the Permission. This is mainly due to projects that were deferred in the preceding years, which are now being carried out.

The deferring of projects resulted in fewer-than-projected loans raised with financiers, which in turn led to the actual interest paid being below projections. The expected 'catching up' will continue into the next Permission from 2015 to 2020. However; the project deferments did not negatively impact the safe provision of air traffic management services.

# ANNEXURE A: REMUNERATION REPORT

The remuneration context is designed to remunerate employees at market competitive levels, whilst taking into account the Company's financial ability, as well as the performance of the individual.

The Company's remuneration directive has a direct impact on operational expenditure and profitability, as well as company culture, employee behaviour and ultimately, with correct alignment, on the on-going sustainability of the organisation.

Remuneration plays a critical role in attracting and retaining high-performing employees. Remuneration also reinforces, encourages and promotes superior performance.

## ATNS Remuneration Philosophy

The Company is committed to a remuneration philosophy which will:

- align with the Company's strategy;
- support its business objectives based on a Total Reward philosophy and approach;
- attract, motivate and retain the right skills and talent for the Company to meet its desired business outcomes;
- deliver a reward proposition that will motivate superior performance;
- remunerate employees in a way that reflects the dynamics of the markets and the context in which it operates; and
- is fair and equitable.

## Integrated Remuneration Model

All the components of the Remuneration Directive - which includes guaranteed pay, short-term incentives, long-term incentives and non-financial rewards - is aligned to the strategic direction and business-specific value drivers and the values of the Company.

Remuneration is not to be regarded as a stand-alone process, but rather as one fully integrated with other management processes, such as performance management, learning and development and talent management.

## Benchmarking and position in the market

ATNS performs regular remuneration benchmark exercises in both the international and local market, to ensure that we remain market aligned, fair and competitive. In order to compete effectively for skills in a competitive labour market while controlling costs, the Company focuses on remuneration in the most efficient and effective manner. This requires differentiation in pay based on fair, equitable and defendable criteria.

The Company further realises the critical need for attracting and retaining critical skills, which demand a premium because of their scarcity in the market and their value to the business. Accordingly, the Company acknowledge that it may need to pay a premium for these skills.

Executive positions are benchmarked using a model to grade company size and competency requirements, applied in both the local and international markets.

## Components of remuneration

Total remuneration consists of guaranteed pay (inclusive of allowances), short-term incentives; as well as recognition and reward.

### Guaranteed pay

- Remunerate employees using the "Cost to Company" method of payment.
- Cost to Company is an approach to remuneration where the employee's package is managed as a single entity, rather than where each benefit is managed separately.
- The total value of the employee's remuneration is known upfront and managed accordingly.
- Ensuring that the remuneration package levels of employees commensurate with their worth to the business, i.e. pay a market rate for a job.
- The "Cost to Company" includes the Company's contribution towards pension fund and medical aid.

## Retirement Fund Benefit

- The retirement fund is a fixed component of the employee's cost to company.
- All permanent employees are members of the ATNS Retirement Fund.
- The Company offers employees a flexible pensionable/non-pensionable split, including:
  - 60% pensionable/40% non-pensionable
  - 70% pensionable/30 % non-pensionable
  - 80% pensionable/20 % non-pensionable
  - 85% pensionable/15% non-pensionable

## Healthcare

- Healthcare membership is a condition of service for all permanent employees.
- The healthcare benefit is a fixed component of the employee's cost to company.
- ATNS currently contracts with two healthcare service providers and enjoys favourable underwriting conditions for employees (Discovery Health and Bonitas)

## Variable pay

## Short-term incentive

Performance management is regarded as a strategically integrated organisation initiative and a key 'people process' in that it informs a number of other equally important processes, such as talent management, succession planning, coaching and mentoring, as well as the Company's disciplinary code and procedures.

It is also aligned with the remuneration directive, and provides information for the determination of salary increases and short-term incentives.

The Company is committed to the following principles, pertaining to performance management:

- Driving a high performance culture.
- Aligning an individual's business activities with the organisation's strategy and goals.
- Ensuring fairness, consistency and objectivity.
- Promoting dialogue/feedback between employees and managers regarding performance.
- Addressing poor performance through a fair but firm process.

The objectives of the performance incentive bonuses are as follow:

- Drive organisational, departmental, team and individual performance.
- Attract and retain the required talent and skills.
- Ensure that stakeholder key requirements are met.
- Encourage and reward participants for achieving and exceeding targeted performance.
- Ensure alignment of behaviour with the objectives of the organisation.
- Enhance communication and education of the organisation's unit measures.
- Support market competitive remuneration practices.

## Non-executive director's remuneration

Non-executive directors receive fees for their services on the Company's Board and Board Committees. Directors' fees are determined by the Department of Transport (DoT).

## Salaries and related costs

The increase in salaries and wages is due mainly to a 6,7% inflation-related increase to (TBC) (2014: 1,035). All remuneration policies and procedures are fully compliant with current legislation and where applicable, adhere to the collective substantive salary agreement entered into between ATNS and the recognised trade union.

Long-term Substantive Salary Agreements have been entered into with both the Administrative and Technical Bargaining Units. These agreements commence on 1 April 2015 to 31 March 2019. This will provide financial and operational stability for the Company and enable employees to plan their finances accordingly.

## Executive directors remuneration

| | 2015/16 Amount | 100% | 2014/15 Amount | 100% |
|---|---|---|---|---|
| Cash component | R5,175,185.74 | 87 | R4,401,158.43 | 86 |
| Other benefits and allowances (excl. incentive bonus) | R798,940.80 | 13 | R729,698.72 | 14 |
| **Total** | **R5,974,126.54** | **100** | **R5,130,857.15** | **100** |

## Salaries and related costs

The total cost of employment for the 2015/16 financial year compared to the 2014/15 financial year as depicted in the table below.

The salaries and wages increase was due mainly to a minimum of 6,10% inflation-related increase. All remuneration policies and procedures are fully compliant with current legislation and where applicable, adhere to the collective substantive salary agreement entered into between ATNS and the recognised trade union.

Long-term Substantive Salary Agreements have been entered into with both the Administrative and Technical Bargaining Units. These agreements commence on 1 April 2015 to 31 March 2019. This will provide financial and operational stability for the Company and enable employees to plan their finances accordingly.

| | 2015/16 | 2014/15 |
|---|---|---|
| **Total** | **R740, 837,660** | **R669,830,118** |

# ANNEXURE B: GLOBAL REPORTING INITIATIVE

| General Standard Disclosures | Reference 2015/16 Integrated Report | Page |
|---|---|---|
| **G4-1** | | |
| Provide a statement from the most senior decision-maker of the organisation about the relevance of sustainability to the organisation and the organisation's strategy for addressing sustainability. | Sustainability Statement | 3 |
| | Letter from the Chief Executive Officer | 28 |
| **G4-2** | | |
| Description of key impacts, risks and opportunities | Enterprise risk management (ERM) | 65-71 |
| | ATNS's Ten-Year Business Plan and Financial Model | 90 |
| **Organisational profile** | | |
| **G4-3** | | |
| Report the name of the organisation | Nature of business | 8 |
| **G4-4** | | |
| Report the primary brands, products, and services. | Current and new products and services | 9 |
| | ATNS Services | 11 |
| | ATNS service overview | 12 |
| **G4-5** | | |
| Report the location of the organisation's headquarters. | The Company has its head-office at Eastgate Office Park, Block C, South Boulevard Road, Bruma, (Postal code: 2198) in Gauteng. | 8 |
| **G4-6** | | |
| Report the number of countries where the organisation operates, and names of countries where either the organisation has significant operations or that are specifically relevant to the sustainability topics covered in the report. | ATNS's presence in South Africa | 14 |
| **G4-7** | | |
| Report the nature of ownership and legal form. | Nature of business | 8 |
| | Structure of ATNS's operations | 11 |
| **G4-8** | | |
| Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries). | Market segments and geographical markets | 9 |
| **G4-9** | | |
| Report the scale of organisation, including:<br>• Total number of employees<br>• Total number of operations<br>• Net revenues (for public sector organisations)<br>• Quantity of products or services provided. | Creating sustainable value: 1,076 permanent employees. | 78 |
| | Structure of ATNS's operations | 11 |
| | Creating sustainable value: Financial capital outputs | 82-83 |
| | Current and new products and services | 9 |
| **G4-10** | | |
| Workforce | Human capital section | 114-122 |
| **G4-11** | | |
| Percentage of employees covered by collective bargaining agreements | Not reported | |

| General Standard Disclosures | Reference 2015/16 Integrated Report | Page |
|---|---|---|
| **G4-12** | | |
| Supply chain | Local supplier development<br>Supply chain practices | 87<br>127 and 129 |
| **G4-13** | | |
| Report any significant changes during the reporting period regarding the organisation's size, structure, ownership or its supply chain. | None reported | |
| **G4-14** | | |
| Report whether and how the precautionary approach or principle is addressed by the organisation. | Statement of precautionary approach | 7 |
| **G4-15** | | |
| List externally developed economic, environmental and social charters, principles, or other initiatives to which the organisation subscribes or which it endorses. | Commitments to external initiatives | 23 |
| **G4-16** | | |
| List memberships of associations (such as industry associations) and national or international advocacy organisations in which the organisation:<br>• Holds a position on governance body<br>• Participates in projects or committees<br>• Provides substantive funding beyond routine membership dues<br>• Views memberships as strategic. | Commitments to external initiatives | 23 |
| **Identified material aspects and boundaries** | | |
| **G4-17** | | |
| (a) List all entities included in the organisation's consolidated financial statements or equivalent documents. | Scope and boundary of report | 3 |
| (b) Report whether any entity included in the organisation's consolidated financial statements or equivalent document is not covered by the report. | | |
| **G4-18** | | |
| (a) Explain the process for defining the report content and the aspect boundaries.<br>(b) Explain how the organisation has implemented the reporting principles for defining report content. | Scope and boundary of report<br>Material issues: criteria for determining materiality<br>Clustering and prioritising ATNS material issues | 3<br>77<br>79 |
| **G4-19** | | |
| List all the material aspects identified in the process for defining report content. | Clustering and prioritising ATNS material issues | 79 |
| **G4-20** | | |
| For each material aspect, report the boundary within the organisation as follows:<br>• Report whether the aspect is material within or externally to the organisation. | Not reported at this granular level – will report accordingly in 2016/17 | |

| General Standard Disclosures | Reference 2015/16 Integrated Report | Page |
|---|---|---|
| G4-21 | | |
| For each material aspect – boundary outside the organisation | Not reported at this granular level – will report accordingly in 2016/17 | |
| G4-22 | | |
| Report the effect of any restatements of information provided in the previous reports, and the reasons for such statements. | None reported | |
| G4-23 | | |
| Report significant changes from previous reporting periods in the scope and aspect boundaries. | None reported | |
| **Stakeholder engagement** | | |
| G4-24 | | |
| Provide a list of stakeholder groups engaged by the organisation. | Key stakeholders<br>Stakeholder engagement approach and measurement | 81<br>124-125 |
| G4-25 | | |
| Report the basis for identification and selection of stakeholders with whom to engage. | Stakeholder engagement approach and measurement: Main areas of interest/concern | 124-125 |
| G4-26 | | |
| Report the organisation's approach to stakeholder engagement including frequency of engagement by type and by stakeholder group, and indication of whether any of the engagement was undertaken specifically as part of the report preparation process. | Stakeholder engagement approach and measurement | 124-125 |
| G4-27 | | |
| Report key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns. | Stakeholder engagement approach and measurement: Main areas of interest/concern | 124-125 |
| **Report profile** | | |
| G4-28 | | |
| Reporting period (such as fiscal or calendar year) of information provided. | Scope and boundary of report: This is our fourth consecutive Integrated Report and covers the financial reporting period from 1 April 2015 to 31 March 2016. | 3 |
| G4-29 | | |
| Date of most recent, previous report. | Scope and boundary of report: The previous Integrated Report was approved by the ATNS Board on 16 August 2015 and published for the period 1 April 2014 to 31 March 2015. | 3 |
| G4-30 | | |
| Reporting cycle (such as annual, biannual). | Integrated reporting and disclosure: ATNS's Integrated Report is published annually and presents an overview of the Company's activities, practices and financial performance for the year | 42 |

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|---|---|---|
| G4-31 | | |
| Provide the contact point for questions regarding the report or its contents. | Feedback: Ms Thandi Mosupye at marketing@atns.co.za. | 4 |
| G4-32 | | |
| (a) Report the 'in accordance' option the organisation has chosen.<br>(b) Report the GRI Content Index for the chosen option.<br>(c) Report the reference to the External Assurance Report. | Overview of assurance content, providers, frameworks and outcomes<br>Board Approval Statement: The Integrated Report contains Standard Disclosures from the GRI Sustainability Reporting Guidelines. | 5<br>7 |
| G4-33 | | |
| (a) Report the organisation's policy and current practice with regard to seeking external assurance for the report.<br>(b) If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided.<br>(c) Report the relationship between the organisation and assurance.<br>(d) Report whether the highest governance body or senior executives are involved in seeking assurance for the organisation's sustainability report. | The Company does not as yet seek external assurance for the Integrated Report; however certain aspects of the report have been assured by external assurance providers, as referenced in the "Overview of assurance content, providers, frameworks and outcomes". | 5 and 6 |
| Governance | | |
| G4-34 | | |
| Report the governance structure of the organisation, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts. | ATNS board committee structure | 47 |
| G4-35 | | |
| Process for delegating authority for sustainability topics | Board committee responsibilities with regard to integrated reporting elements | 52-53 |
| G4-36 | | |
| Executive level position for sustainability topics | Board committee responsibilities with regard to integrated reporting elements | 52-53 |
| G4-37 | | |
| Process for consultation between stakeholder and Board on sustainability topics | ATNS Control framework | 64-71 |
| G4-38 | | |
| Composition of highest governance body (Board) and committees | ATNS board committee structure | 47 |
| | Board committee responsibilities with regard to integrated reporting elements | 52-53 |
| G4-39 | | |
| Is the Chair also the CEO? | No | |

| General Standard Disclosures | Reference 2015/16 Integrated Report | Page |
|---|---|---|
| G4-40 | | |
| Nominations and selection process for Board and its committees | Board of Directors | 34-35 |
| G4-41 | | |
| Process to avoid and manage conflict of interest | Conflict of interest | 37 |
| G4-42 | | |
| Board's role in development, approval and updating of the organisation's purpose, value or mission statement, strategies, policies and goals related to sustainability impacts | Ethical leadership and corporate citizenship | 34 |
| | Board of Directors: Roles and responsibilities | 35 |
| G4-43 | | |
| Measures to develop and enhance the Board's knowledge on sustainability topics | Board of Directors: Induction and training | 36 |
| G4-44 | | |
| Process for evaluation of Board's performance with regard to governance of sustainability topics, and actions taken | Board and committee evaluations | 34 |
| G4-45 | | |
| Board's role in identification and management of sustainability impacts, risks and opportunities, and stakeholder consultation in the process | Governing stakeholder relationships | 42 |
| | Enterprise risk management (ERM) | 65-71 |
| G4-46 | | |
| Board's role in reviewing effectiveness of risk management processes for sustainability topics | Enterprise risk management (ERM) | 65-71 |
| G4-47 | | |
| Frequency of Board's review of sustainability impacts, risks and opportunities | Enterprise risk management (ERM) – ATNS's annual ERM process | 65-71 |
| G4-48 | | |
| Highest committee or position that formally approves the sustainability report | The Integrated Report integrates sustainability disclosures under the six capitals. The Board approves and signs off on the Integrated Report. | |
| | Board Approval Statement | 7 |
| G4-49 | | |
| Process for communicating critical concerns to the Board | The Board undertakes to use its best efforts to balance the diverse interests of ATNS' stakeholders and to engage stakeholder groups on material issues that may impact the Company's long-term economic, social and environmental sustainability. | 42 |
| | Communication of critical issues is facilitated through the Company's five Board Committees | 47 |
| G4-50 | | |
| Nature and number of critical concerns that were communicated to the Board and mechanisms used to address/resolve them | Not yet reported – will report accordingly in 2016/17 | |

| General Standard Disclosures | Reference 2015/16 Integrated Report | Page |
|---|---|---|
| G4-51 | | |
| Remuneration policies for Board and Senior Executives | Remuneration | 71 |
| | Consolidated executive remuneration 2015/16 compared to 2014/15 | 73 |
| | Consolidated non-executive Remuneration 2015/16 compared to 2014/15 | 73 |
| | Annexure A: ATNS Remuneration Report | |
| G4-52 | | |
| Process for determining remuneration | Remuneration philosophy | 72 |
| | Annexure A: ATNS Remuneration Report | |
| G4-53 | | |
| How are stakeholders' views sought and taken into account regarding remuneration | Not reported | |
| G4-54 | | |
| Ratio of annual total compensation for highest-paid individual to the median annual total compensation for all employees | Consolidated executive remuneration 2015/16 compared to 2014/15 | 73 |
| | Consolidated non-executive Remuneration 2015/16 compared to 2014/15 | 73 |
| | Total cost of employees | 75 |
| G4-55 | | |
| Ratio of percentage increase in annual total compensation for highest-paid individual to the median percentage increase for all employees | Consolidated executive remuneration 2015/16 compared to 2014/15 | 73 |
| | Consolidated non-executive Remuneration 2015/16 compared to 2014/15 | 73 |
| Ethics and integrity | | |
| G4-56 | | |
| Describe the organisation's values, principles, standards and norms of behaviour such as codes of conduct and codes of ethics. | Values | 8 |
| | Compliance with laws, codes, rules and standards | 40 |
| | Code of Ethics | 76 |
| G4-57 | | |
| Internal and external mechanisms for seeking advice on ethical and lawful behaviour | Independent advice | 37 |
| G4-58 | | |
| Internal and external mechanisms for reporting concerns about unethical or unlawful behaviour | Fraud prevention, detection and investigation | 64 |
| Disclosure on management approach | | |
| G4—DMA | | |
| For each identified material aspect: Why is it material and how is managed? | Each material issue is addressed under the appropriate capital. For each identified material issue the reasons for materiality are provided. The approach to managing each issue is also provided. | |

# ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| AASA | Airline Association of Southern Africa |
| AATO | African Association of Training Organisations |
| ACSA | Airports Company South Africa |
| ADS | Automatic Dependent Surveillance |
| ADS-B | Automatic Dependent Surveillance Broadcast |
| AEP | Aviation Environmental Protection |
| AFCAC | Africa Civil Aviation Committee |
| AFI | African Indian Ocean Region |
| AFS | Annual Financial Statements |
| AFTN | Aeronautical Fixed Telecommunications Network |
| AFIS | Aeronautical Flight Information Service |
| AFRAA | African Aviation Authority |
| AIM | Aeronautical Information Management |
| AIP | Aeronautical Information Publication |
| AIROPS | Airspace User Operations |
| ANSP | Air Navigation Service Provider |
| AORRA | Atlantic Ocean Random Routing Area |
| APIRG | AFI Planning and Implementation Regional Group |
| ATA | Aviation Training Academy |
| ATC | Air Traffic Controller |
| ATCO | Air Traffic Control Officer |
| ATFM | Air Traffic Flow Management |
| ATNS | Air Traffic and Navigation Services |
| ATM | Air Traffic Management |
| ATMRPP | Air Traffic Management Required Performance Panel |
| ATS | Air Traffic Services |
| ATS/DS | Air Traffic Service/Direct Speech |
| BARSA | Board of Airline Representatives of South Africa |
| B-BBEE | Broad-Based Black Economic Empowerment |
| BD | Business Development |
| BI | Business Intelligence |
| BSC | Business sustainability costs |
| C | Communication |
| CA | Current Assets |
| CAC | Civil Aviation Committee |
| CAD | Centralized Aeronautical Database |
| CAEP | Committee on Aviation Environmental Protection |
| CAGR | Compound annual growth rate |
| CAMU | Central Airspace Management Unit |
| CANSO | Civil Air Navigation Services Organization |

| | |
|---|---|
| CAPEX | Capital Expenditure |
| CAR | Civil Aviation Regulation |
| CATS | Civil Aviation Technical Standard |
| CCMA | Commission for Conciliation, Mediation and Arbitration |
| CDM | Collaborative decision-making |
| CDP | Carbon Disclosure Project |
| CDU | Curriculum Development Unit |
| CEO | Chief Executive Officer |
| CFO | Chief Financial Officer |
| CISM | Critical Incident Stress Management |
| CNS | Communication, Navigation and Surveillance |
| D/E | Debt/Equity Rating |
| DME | Distance Measuring Equipment |
| DoT | Department of Transport |
| DRC | Democratic Republic of the Congo |
| DSCR | Debt Service Coverage Ratio |
| EE | Employment Equity |
| EGNOS | European Geostationary Navigation Overlay System |
| EIA ROD | Environmental Impact Assessment Record of Decision |
| EME | Exempt Micro Enterprises |
| ENAC | Ecole Nationale de l'Aviation Civile |
| ERM | Enterprise Resource Management |
| ETS | Engineering and Technical Services |
| EUROCONTROL | European Organization for the Safety of Air Navigation |
| FABE | Bhisho Airport |
| FABL | Bloemfontein Airport |
| FACT | Cape Town International Airport |
| FAJS | OR Tambo International Airport |
| FALE | King Shaka International Airport |
| FAOR | OR Tambo International Airport |
| FC | Fixed costs |
| FEC | Foreign Exchange Contracts |
| FIR | Flight Information Region |
| FMCG | Fast Moving Consumer Goods |
| GA | General Aviation |
| GANP | Global Air Navigation Plan |
| GASP | Global Aviation Safety Plan |
| GDP | Gross Domestic Product |
| GHG | Greenhouse gas |
| GNSS | Global Navigational Satellite System |

| | |
|---|---|
| GPS | Global Positioning Systems |
| GRI | Global Reporting Initiative |
| HR | Human Resources |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organization |
| ICAS | Independent Counselling and Advisory Service |
| IFRS | International Financial Reporting Standards |
| IIRC | International Integrated Reporting Council |
| ILS | Instrument Landing Systems |
| IP | Internal Protocol |
| ISA | International Standards on Auditing |
| ISO | International Standards Organization |
| IT | Information Technology |
| IVSAT | Internal Very Small Aperture Terminal |
| KPI | Key Performance Indicator |
| MCM | Maximum Certificated Mass |
| MIDVSAT | Middle East Communication Network |
| MIS | Management Information System |
| MLAT | Multilateration |
| MSSR | Mono-pulse Secondary Surveillance Radar |
| N | Navigation |
| NAFISAT | North East African Communication Network |
| NAMP | National Airspace Master Plan |
| NASCOM | National Airspace Committee |
| NEXTGEN | Next Generation |
| OEM | Original Equipment Manufacturer |
| OPEX | Operational Expenses |
| OT | Operational Technology |
| PBN | Performance-based Navigation |
| PBU | Beneficial use |
| PFMA | Public Finance Management Act |
| PPC | Permission Planning Committee |
| QMS | Quality Management System |
| QSE | Qualifying Small Enterprises |
| RC | Regulating Committee |
| R&D | Research and Development |
| RNAV | Area Navigation |
| RNP ACPH | Required Navigational Performance Approach |
| ROA | Return on assets |
| ROCE | Return on Capital Employed |

| | |
|---|---|
| RWY | Runway |
| S | Surveillance |
| SAAF | South African Air Forece |
| SACAA | South African Civil Aviation Authority |
| SADC | Southern African Development Community |
| SAIEE | South African Institute of Electrical Engineers |
| SARPS | Standards and Recommended Practices |
| SARS | South African Revenue Services |
| SAWS | South African Weather Service |
| SCM | Supply Chain Management |
| SD | Supplier Development |
| SESAR | Single European Sky Air Traffic Management Research |
| SID | Standard Instrument Departure |
| SLA | Service Level Agreement |
| SMMEs | Small, Medium and Micro Enterprises |
| SMS | Safety Management System |
| SOC | State-owned company |
| STAR | Standard Terminal Arrival Routes |
| SWIM | System Wide Information Management |
| TS | Technical Services |
| TMAs | Terminal Manoeuvring Areas |
| UACC | Upper Airspace Control Centre |
| UN | United Nations |
| UNGC | United Nations Global Compact |
| USTDA | United States Trade and Development Agency |
| VC | Variable costs |
| VDF | VHF Directional Finder |
| VFR | Visual Flight Rules |
| VMC | Visual meteorological conditions |
| VSAT | Very Small Aperture Terminals |
| WAN | Wide Area Network |
| WITS | University of the Witwtersrand |
| WGS-84 | World Geodetic System – 1984 |

# COMPANY INFORMATION

## ATNS Head Office

### Postal address
Private bag X15
Kempton Park
1620

### Street address
Block C, Eastgate Office Park
South Boulevard Road
Bruma
2198
Gauteng
Republic of South Africa

### Contact details
Tel: +27 11 607 1000
Fax: +27 11 607 1570
Website: www.atns.com
Email: marketing@atns.co.za

## Southern Region

### Postal Address
Private bag X17
Cape Town International Airport
7525

### Air Traffic Management
Tel: +27 21 937 1122
Fax: +27 21 934 5530

### Technical services
Tel: +27 21 937 1153
Fax: +27 21 937 1181

## Northern Region

### Postal address
Johannesburg International Airport
Private bag X1
Bonaero Park
1622

### Air Traffic Management
Tel: +27 11 928 6439
Fax: +27 11 395 1045

### Technical services
Tel: +27 11 928 6469
Fax: +27 11 395 1049

## Aviation Training Academy

### Postal address
Private bag X1
Bonaero Park
1622

### Contact details
Tel: +27 11 570 0400
Fax: +27 11 395 3347

## Bankers

### Nedbank
Contact: Charles Barnes
Tel: +27 11 295 7486 (PA)

### Street address
135 Rivonia Road
Sandton
0128

## Auditors
Rakoma and Associates.
Bryanston Gate Office Park
Cnr Curzon Rd and Main Road
Bryanston, Johannesburg, 2194

PO Box 1117
Randpark Ridge
2156

Tel: +27 11 463 5781
Fax: +27 11 463 0186

e-mail address:info@rakoma.co.za