















THE SA ALUMINIUM INDUSTRY

The South African aluminium industry is one of the industrial pillars of the South African economy, generating significant foreign exchange revenue and providing over 15 000 employees with jobs. Aluminium also has great potential in the automotive industry as manufacturers make more and more use of aluminium to reduce weight. One example being the C-Class Mercedes Benz which now consists of 45% aluminium against 9% for the previous model.

With Richards Bay being home to the South32 Hillside Smelter, the largest aluminium smelter in the Southern Hemisphere, downstream aluminium opportunities in the area are abundant.

For this reason, the Downstream Centre of Aluminium Technology (DACT) was established to assist entrepreneurs to succeed in the industry with the help of funding from SEDA and South32.

Some of the challenges faced by entrepreneurs are:

- Difficulty in obtaining funding
- Difficulty in expanding and transforming their businesses
- Insufficient marketing abilities

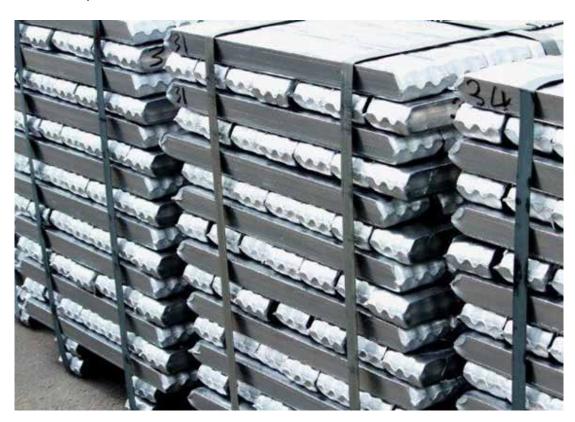
These challenges are handled at the centre and DACT ensures sustainability of businesses in the aluminium industry through an incubation programme which provides support in terms of compliance, infrastructure, technology support, business administration and skills development.

DEFINITION OF UPSTREAM

The upstream stage of the production process involves searching for and extracting raw materials but does not do anything with the material itself, such as processing the material. This part of the process simply finds and extracts the raw material. In a more general sense, "upstream" can also refer to any part of the production process relating to the extraction stages.

DEFINITION OF DOWNSTREAM

The downstream stage in the production process involves processing the materials collected during the upstream stage into a finished product. The downstream stage further includes the actual sale of that product to other businesses, governments or private individuals. Regardless of the industry involved, the downstream process has direct contact with customers through the finished product.







THE SA STEEL INDUSTRY

The South African downstream value adding steel industry is facing a number of serious challenges. These include rising operational expenses while global competition is putting downward pressure on selling prices. Therefore, manufacturers have to increasingly find ways of being innovative in the way they manage their businesses. Increases in labour costs, electricity and transportation are having detrimental impacts on margins, investment in new capacity and expanded job creation.

The downstream beneficiated steel industry is undeniably linked to the overall economy and in particular the expansion of industrial activity and infrastructure development. A significant hurdle to date has been the slow roll out of new projects in South Africa resulting in a lack of critical volume and hence reduced demand.

Most of the challenges facing the downstream steel beneficiated industry are also faced by most other manufacturing companies in South Africa. These include currency fluctuations, a mismatch of academic skills versus industry requirements, low tariff protection measures, substitute materials such as aluminium and PVC, the challenges of exporting into Africa and the relative distance to traditional international markets.

However, there are a number of opportunities developing as well. Government spending and product designation is a critical way of supporting local industry. The good work done by government on local content levels for project developers is also having a positive impact on the overall industry.

According to the World Steel Association, South African steel production rose by 2.6% in 2017 to an estimated 6.301-million tonnes after falling by 4.2% in 2016.

Upstream and downstream steel industries need to work together to overcome the challenges of imports and tariffs in the steel construction industry.

The private sector has invested heavily in the steel-intensive non-residential construction sector – so much so that there are reports of shortages of steel reinforcing bars.

The real value of non-residential buildings completed soared by 38.9% year on year in the first 11 months of 2017 as there were large increases in completions of retail, office and banking space, while the Centre of Sandton currently resembles one large construction site, with several large buildings nearing completion.





OUR HISTORY

The Downstream Aluminium Pilot Project (DAPP) was established in 2000 as an ancillary project of the Zululand Chamber of Business Foundation.

This initiative then prompted the Department of Trade and Industry to contribute to the aluminium industry and on the 26 July 2002, the Downstream Aluminium Centre for Technology (DACT) was launched with an official cheque handover of R 2.5 million.

The biggest portion of this funding was used on the customised building with the balance of the money used for equipping the facility and obtaining patterns and dies for the manufacture of a range of cast aluminium products.

The Downstream Aluminium Pilot Project (DAPP) was officially launched in July 2002, with the main objective being to assist potential entrepreneurs from local and emerging communities with establishing manufacturing enterprises and assisting them from start up to sustainability.

DACT has learnt some valuable lessons during the course of its operations. Although the vision and mission has remained the same over time, the more specific aspects are adjusted according to the changes in the environment and new situations that arise.

DACT is registered as an independent legal entity in terms of Section 21 of the Act in 2005, with an independent and voluntary board of directors acting as it's custodians.

Seven staff members are employed specifically to assist clients and to provide support. DACT is registered with the Department of Social Development as a public Benefit Organisation.

VISION STATEMENT

To be a nationally recognized centre of competence that develops and supports innovative and technology based SMME's in the Aluminium and Metal industry.

MISSION STATEMENT

To mentor, coach and assist innovative technology based SMME's so that they can

grow to sustainability and contribute to the growth of our economy.

OUR VALUES

- Integrity
- Professionalism
- Commitment
- Respect
- Empowerment
- Teamwork









SERVICES

The centre strives to provide the relevant infrastructure, including a manufacturing environment, where trainees can be effectively and safely trained to cast, manufacture and weld aluminium products.

It also endeavours, through training and mentoring to equip the graduates with the business skills and tools to enable them to establish their own sustainable businesses.

Services include the following:

- Physical space
- Product/process identification
- · Access to equipment, machine, tools and computers
- Internet Café
- · CAD Design Studio
- · Shared administrative services
- Business assistance
- Entrepreneurial culture development
- Technical Training
- Counselling, Coaching and Mentoring
- Technology Transfer
- · Marketing and Commercialisation
- · Financial matters and funding
- Export readiness
- Access to Government information
- Networking

TARGET MARKET

Pre-incubation

Business idea and vision in the metals industry English proficiency (important for trainings and development) Proof of experience or skills in the industry

Incubation

Complete statutory compliance Proof of sales achieved to date (minimum R12 500.00 per month) Proof of experience or skills in the industry

The centre will be assisting incubatees which have been categorised as follows: **Low tech**

Low tech incubatees are those businesses which are operating aluminium businesses which do not need much equipment for operations. These businesses are mostly informal businesses or entrepreneurs that want to start running their own businesses full time.

High tech

High tech incubatees are those businesses operating in the Engineering field. This includes existing business which are looking at improving the market potential or expanding their operations.

INCUBATION MODEL

MANAGEMENT PROCESSES

Management Systems **Planning**

Set Objectives and Tragets

Provide Resources & Infrastructure

Identify Stakeholder Requirements

Determine Rules and Responsibilities

Business Planning

Management Review

ASSESSMENT PROCESS (QUALITY MANAGEMENT SYSTEM)

Internal Auditing

Nonconformities

Corrective & Preventive Actions

Entry

Criteria

Customer Satisfaction

Continual Improvement

Graduation/

Service & **Process** Monitoring

Data Analysis

ncubation and Stakeholder

Inputs

Process

Post-Incubation

Outputs

Impact

Relevance

Finance Stakeholder Objectives Opportunities Pre-Incubation

Compliance Workshop and Registration Safety Induction **Business Development** Workshop

Compulsory compliance complete Proof of sales - viability Technical skills / experience

Incubation

Technology support Infrastructure

Training and workshops Counselling Mentoring Financial support Marketing support Product/process development Exit Maximum 3 years Client can no longer receive value

Networking and linkages Market access

ncubation and Stakeholder

SUPPORT PROCESSES

Administration and Compilance

Finance

Workshop

IT Services (outsourced)

Human Resources - payroll

Business Development





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