



THE ULWAZI PARTNERSHIP

**DEVELOPING EXPERIENCES
IN SUPPORT OF EDUCATION AND
TOURISM DEVELOPMENT**

**CAPABILITY STATEMENT
JULY 2016**

INTRODUCTION

The Ulwazi Partnership (Ulwazi) was established in 2002 to develop interactive science and technology experiences, primarily through the establishment of science centres and associated activities in support of the public awareness of science and technology. It then broadened its mandate to include arts, culture and heritage and to include facilities such as heritage sites and museums. From 2003 to 2012, Ulwazi operated through and was the trading name for Epidote Properties (Pty) Ltd, a company directed and managed by Prof. Dan Archer and Grahame Lindop. Since 2013, Ulwazi has been operating again as The Ulwazi Partnership with the same principals. The name Ulwazi derives from isiZulu for knowledge.

From a *science and technology perspective*, there continues to be a desperate need in Africa to strengthen education in science, technology, engineering and mathematics (STEM), as well as the public's engagement with these subjects. Interactive exhibits, experiences and programmes can play an important role in this regard, combining education with entertainment, demystifying science and making it more relevant.

From an *arts and culture perspective*, there is a need to recognise, promote and provide a balanced perspective of the country's diverse cultures and heritage. Arts and culture are not divorced from science and technology and interactive experiences can not only enhance the learning experience but also allow these interfaces to be explored.

Ulwazi offers:

- a comprehensive, integrated range of services covering planning, construction and operations (page 3).
- an approach that leads to the development of unique, customised, interactive experiences (page 4).
- the experiences and accomplishments gained from previous projects, both within and outside of Ulwazi (pages 5 -7).
- the complementary skills of its directors and other associates (pages 8 - 9).

Ulwazi prides itself on offering a professional service in an efficient and timely manner, taking a proactive and entrepreneurial approach, and giving consideration to the economic, social and environmental pillars that support sustainable development.

For further details, visit www.ulwazi-ulwazi.co.za or contact Ulwazi as follows:

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SERVICES

The Ulwazi Partnership offers a comprehensive, integrated range of specialised consulting and management services covering the planning, construction and operations of interactive educational and tourism development experiences:

BUSINESS PLANNING AND STRATEGY

Ulwazi can assist clients with planning to define and assess the feasibility of a proposed development. Planning may be undertaken at a conceptual level to create a master plan, or with increasing levels of detail to provide a strategic plan or a business plan. Elements of a plan may include:

- **a situational analysis:** assessing the context of a development; identifying, consulting with and securing buy-in from stakeholders, confirming the need and opportunity, estimating the market, understanding the constraints and challenges.
- **a capital plan:** defining the physical components of the proposed development, evaluating site options, undertaking property negotiations, formulating preliminary themes, developing architectural plans/sketches and estimating capital costs.
- **an operating plan:** proposing programmes, defining staffing needs, evaluating organisational options, estimating operating costs/revenues, and assessing risks.
- **fundraising:** identifying potential sources of funds, defining a fundraising strategy, developing fundraising materials, seeking/securing funds.

DEVELOPMENT MANAGEMENT

During construction, Ulwazi can offer to act as a development coordinator and/or project manager and/or contribute as a specialist member of a project team. Other members of the team may include an architect, interior designer, exhibit developer, quantity surveyor, engineer, and various other specialisations.

OPERATIONAL MANAGEMENT

In addition to operational planning, Ulwazi can also provide various levels of ongoing assistance during the implementation and operational stages, ranging from relatively arms-length roles (staff selection, monitoring, and review) to active participation in management under a management contract.

THE ULWAZI APPROACH

Ulwazi prides itself on providing customised, culturally-based and culturally-relevant, interactive experiences which:

- offer a user-friendly, hands-on stimulating experience to challenge and excite learners and visitors: about themselves, their world and the world they may create
- provide an understanding of the presence and value of science, technology, culture and heritage in all aspects of livelihood, particularly with regard to satisfying basic needs (e.g. safety and security, water, food, and clothing)

- meet the priorities of reconstruction and development (education, health and housing) and promote self actualization (arts, culture, innovation, creativity and entrepreneurship)
- link past and present; bridging indigenous and exogenous influences.

Ulwazi distinguishes itself on the basis of a process that aims to develop a unique product, including:

- community and stakeholder participation in the design, development, construction and operation
- customising each facility uniquely to the community environment/needs
- ensuring scientific, cultural and educational authenticity and integrity
- combining/integrating science/technology with culture/heritage and socio economic facets
- consciousness of monetary constraints common to developing countries, and a belief that it is possible to provide excellent educational and edu-tainment experiences with limited resources.

From a science and technology perspective, it should be noted that a study that Ulwazi carried out for the South African Department of Science and Technology provided an audit of existing science centres in South Africa and permitted visits to and a review of more than 60 centres and organisations on five other continents. In addition to this information at its disposal, Ulwazi continues to keep abreast of the current variables and trends that allow for the successful development and operations of interactive centres, programmes and other activities by continually visiting new centres, from interactions within the Southern African Association of Science and Technology Centres (SAASTEC) and from attendances and participation in various conferences, such as the British Council's Science and Society Conference and the 6th Science Centre World Congress.

PLANETARIUMS AND DIGITAL DOME THEATRES

Ulwazi is the Sub-Saharan representative of Sky-Skan Inc., a United States based manufacturer of Definiti digital planetarium and theatre systems, projectors and associated software (www.skyskan.com). Sky-Skan has been at the forefront of the evolution of full-dome digital systems for almost 50 years: being the first company to make available a high resolution (4 000 pixel, 4K) system, then a 3 D system, and now an 8K system. Sky-Skan has supplied more than 150 digital systems to colleges, museums and the private sector throughout the world.

Importantly, the full dome theatre used for astronomy has evolved into a multi-purpose, digital visualisation tool: able to illustrate data sets and other content in real time and able to present shows covering a wide range of topics - in space, under the ocean, inside the human body or within molecules. Shows may be designed for a range of audiences: the general public, special interest groups and various education levels. The system can also be customised for research purposes.

A Sky-Skan system was installed in the old Naval Hill Observatory, Bloemfontein in 2014, this being the first digital system in Sub-Saharan Africa. A Sky-Skan system has been chosen to upgrade the Iziko Planetarium in Cape Town, which should be operating by the end of 2016.

PROJECTS UNDERTAKEN BY ULWAZI

- ***Mbombela Public Private Partnership (2015-2016):*** acted as Transaction Advisor to complete a feasibility study for a proposed Public Private Partnership to develop an international convention centre, hotel, multi-purpose indoor sports centre and the facilities discussed below as part of the Mbombela Heritage Village.
- ***Mbombela Heritage Village (2013):*** acting as Transaction Advisor to Delca Systems (Pty) Ltd, Principal Agent to the Mbombela Local Municipality for its Flagship Projects, Ulwazi developed a business plan for a new edutainment complex in Nelspruit, including a heritage museum, interactive science centre, planetarium, art gallery, cultural industries business incubator, and associated retail activities.
- ***Galeshewe Science Centre, Kimberley (2009):*** developed a business plan for a science centre and associated activities for the Sol Plaatje Municipality and National Treasury as part of the Galeshewe Urban Renewal Programme.
- ***Iziko Planetarium, Cape Town (2008):*** on behalf of Iziko Museums of Cape Town, Ulwazi developed a business plan for an upgrade to the Planetarium, in particular, for the installation of a full dome, immersive digital projection system.
- ***Kouga Cultural Centre, Humansdorp (2008):*** participated in exploring options for the further development of this facility, including installing an interactive science centre and creating a Public Private Partnership to manage its future operations.
- ***Taung Skull World Heritage Site (2007-8):*** principal consultant to the North West Department of Agriculture, Conservation and Environment for the development of a comprehensive business plan for this recently proclaimed World Heritage Site.
- ***West Coast Fossil Park, Langebaanweg, Western Cape (2005-9):*** facilitated a workshop to establish a master plan and provided on-going advice: e.g. on the development of a Trust to expand/manage this facility as an education/tourism attraction.
- ***Interactive Experiences, eThekweni Metro (2005-6):*** provided advice on a science centre to be incorporated into a proposed extension of the Durban Natural Science Museum, and advised on other interactive components to be incorporated into a proposed Science/Heritage Precinct and an Educational/Heritage Trail in Durban.
- ***TechnoCentre, Uitenhage, Eastern Cape (2004-2005):*** participated in evaluating a business plan for a science centre and provided additional advice to implement the project as a component of re-developing Uitenhage's old railway sheds and station.
- ***National Network of Science Centres for South Africa (2004):*** undertook a feasibility study for the Department of Science and Technology (DST) which included an audit of existing science centres, the identification and analysis of alternative models for the proposed network, and recommendations on an ideal model. The study formed the basis for DST to publish norms and standards and a roll-out plan for the network.
- ***Boyden Science Centre, Free State (2002-2003):*** facilitated the development of a master plan and managed the construction of Phase I of the centre for the University of the Free State. Provided further advice on subsequent phases of the project.
- ***Olwazini Discovery Centre, Pietermaritzburg, KwaZulu-Natal (2001-2002):*** managed the development of this unique interactive science and cultural centre for Akani Msunduzi (Pty) Ltd.

OTHER PROJECTS IN ORGANISATIONAL DEVELOPMENT

Dan Archer also brings planning, organisational development and institutional development skills from a wide variety of other projects that have included:

- **Centre of Excellence in Maritime Education and Training (2011-2012):** for the eThekweni Maritime Cluster (Durban), undertook an industry needs analysis and established a business case for establishing the centre.
- **Commercialisation of Eco-Tourism and Hospitality Functions at the Royal Natal National Park (2010 - 2011):** for Ezemvelo KZN Wildlife, reviewed and assessed a feasibility study for a proposed Public Private Partnership.
- **UKZN Extended Learning Initiative (2010):** explored a business structure and business development opportunities for the University of KwaZulu-Natal to manage its short courses/extended learning programmes.
- **Quantum Technology Hub (2009):** prepared a business case for this proposed partnership between the University of KwaZulu-Natal, other research institutions, government and the private sector.
- **Msunduzi Innovation and Development Institute (2005):** facilitated a partnership agreement among Pietermaritzburg Chamber of Business, Msunduzi Municipality and the University of KwaZulu-Natal, leading to the creation of MIDI which supports local socio-economic development. Coordinated a number of MIDI projects.
- **Doris Duke Medical Research Institute, Durban (2002 - 2004):** executive chairman of the steering committee, and played a coordinating/trouble-shooting role for this R 40 million medical research institute located at the Nelson R Mandela School of Medicine.
- **Natal University Health (Pty) Ltd (2002 - 8):** facilitated the development of a private company to manage the research, medical service and university-private partnerships of the University of Natal's Faculty of Health Sciences. Serve as a director and then advised on restructuring the company to become University of KwaZulu-Natal Innovation, which then managed a broader range of university business development activities.
- **Bayworld, Port Elizabeth (2002):** participated in a review of this facility (oceanarium, dolphinarium, snake park and museum) for a proposed Public Private Partnership.
- **Biotechnology Research Innovation Centres (2002):** facilitated a national workshop to position members of AfricaBio (a biotechnology association) to secure three regional biotechnology research centres being established by the national government.
- **KwaZulu-Natal Innovation (now Embizeni) Support Centre (2001 - 2002):** co-chaired the interim management committee and provided facilitative services to establish this public-private partnership for information technology commercialisation in Durban.
- **Centre for Entrepreneurship, University of KwaZulu-Natal (2000 - 2008):** chaired the development committee, secured funding and provided development support for this cross-campus facility, which acted as a focal point for teaching, research and outreach in entrepreneurship; past Chair and Member of the Advisory Board until 2008.
- **Festival of the Sea (1998 – 1999):** on behalf of Tourism Durban and the KwaZulu-Natal Tourism Authority, conceptualised and developed a business plan for a topical maritime festival; with business, public, recreational, educational and cultural components; initiated Easter 1999 in co-operation with the port authority, SA Navy, NGO's and others.
- **Science by the Sea, Durban (1998):** proposed and, on behalf of the Department of Arts Culture Science and Technology, directed this event enhancing public awareness of science and technology, contributing to South Africa's Year of Science and Technology.
- **South African Youth Water Prize (1998):** in collaboration with the Stockholm International Junior Water Prize, introduced this high school competition to SA, including securing initial financial and logistical support from government, water utilities, and NGO's.
- **School of Maritime Studies (1997 – 1999):** coordinated the development of this multi-disciplinary institution for the then University of Natal.
- **Tourism Development Working Group (1997 – 1998):** represented the Department of Traditional and Environmental Affairs on this inter-departmental working group to provide advice and liaison on environmentally and socially sustainable tourism development.

OTHER PROJECTS IN PROPERTY DEVELOPMENT

In addition to projects undertaken within Ulwazi, Grahame Lindop brings experiences related to property development and marketing.

Current project:

- **Platinum Plaza, Airport City, Accra, Ghana (2013-):** for Inter-Afrique Properties, working as Development Director for a \$125 million mixed-use development.

Previous projects:

- **URBE Mixed-Use Development, Maputo, Mozambique (2014-2015):** undertook a site analysis and prepared a business plan for this proposed development in Sommerschield
- **Capital Hill, Sandton (2012- 2015):** worked as marketing and leasing coordinator for a new 8 500 m² office development.
- **Liberty Properties (2010 - 2012):** mandated to secure a pipeline of new development work, locally and internationally. Investigated two developments in Accra, Ghana valued at US\$ 250 million and two shopping centres in Nigeria valued at US\$100 million.
- **Liberty Properties (2010):** undertook a study into the re-organisation of Liberty's property development company.
- **HSBC Nairobi, Kenya (2010):** sourced office accommodation for a new East African Regional Office.
- **HSBC Johannesburg (2009-2010):** negotiated head office lease for an entire building of 7 734 m² in Stock Exchange precinct, Johannesburg.
- **Ikwezi Crossing, Soweto (2009):** lead developer of a 6 500 m² shopping centre.
- **L'Avenir Vineyards, Stellenbosch (2007-2009):** coordinated the development of a commercial node at the entrance to this French-owned wine estate.
- **Moruleng Central Business District, North West Province (2006 - 2010):** led a development team for the Bakgatla Ba Kgafela Traditional Council, to create a central business district including an office administration complex, residential apartments, civic centre, hospital, a sports complex and an eco estate and housing for mine workers. In 2008 - 2009, coordinated the development of a 20 000 seat soccer stadium at Moruleng used as a practice facility for the FIFA 2009 Confederations Cup and the 2010 FIFA World Cup. In 2009 – 2010, managed the development of Phase 1 (1 800m²) of office accommodation for the tribal administration, and finalised the planning for a second phase (3 600 m²).
- **Holiday Inn Soweto (2006 - 7):** project managed the construction of Soweto's first four-star hotel
- **Soweto Golf Club (2005 - 2006):** coordinated the re-design, relocation and reconstruction of Soweto's only golf club for the Johannesburg Development Agency.
- **Walter Sisulu Square of Dedication, Kliptown (2004 - 2007):** assisted with the re-location of traders to new premises and handled leasing of shops, tourist facilities and hotel in this R400 million Johannesburg Development Agency/Blue IQ project.
- **The Crossing Shopping Centre, Mafikeng (2005 - 2007):** coordinated the leasing of this R 90 million shopping centre.
- **39 West Street, Houghton (2006):** negotiated the sale of this prime office building for a leading executive search company.
- **Ten Melvill, Illovo (2004 - 2005):** managed the development of an 18-unit upmarket apartment block in Melvill Road, Johannesburg
- **Gold Reef City Casino and Entertainment Centre, Johannesburg (1999 - 2000):** managed the development of this R 850 million hotel, casino and entertainment complex.

PROFESSOR DAN ARCHER

Dan Archer holds dual Australian/British citizenship and has had more than 40 years' experience working in both developed and developing economies in Europe, North America, Australia and Africa. He has now lived in South Africa for more than 20 years. While trained as a geologist and initially working in the exploration/mining industry, Dan's experience has since been distributed equally among the education, business and government sectors. More senior positions have included:

- BP Chair of Environmental Policy and Management (INR, University of Natal)
- Director Sustainable Development (Manitoba Industry Trade and Tourism)
- Assistant to the President (Manitoba Telephone System)
- Executive Director - Technology (Manitoba Industry Trade and Technology)
- Senior Policy Advisor (Manitoba Research Council).

Over the years, Dan often found himself initiating, coordinating, facilitating and managing new projects and programmes, bringing together stakeholders from different backgrounds and working at the interface between sectors, including the development of public private partnerships. These experiences have provided him with skills in:

- business development, administration and management
- change management, public participation and development facilitation
- communications and fundraising
- policy analysis, advice and development
- project management and evaluation
- programme development
- strategic and business planning.

These skills have been successfully applied to a diverse range of fields, including:

- science, technology and engineering
- environmental management, conservation and sustainable development
- entrepreneurship and leadership development
- natural resource management, marine and maritime studies
- medicine and health, and
- tourism development.

In the last 20 years, Professor Archer has worked at establishing more than 15 organisations distributed among the tertiary education sector, the public sector, the private sector and as public-private partnerships. This work has involved assessing and facilitating the establishment of appropriate organisational structures, developing the associated instruments of governance and management, establishing business plans and budgets, and building capacity to operate these institutions. In addition, he has been involved in numerous other projects: undertaking project and programme assessments, facilitating planning, and fulfilling the role of project manager.

Dan holds an MBA (Cape Town), and a BSc (Hons) and a PhD (Manchester), and has received additional training in negotiating, report writing, presentations and leadership.

In addition to his involvement with The Ulwazi Partnership, Dan is the Principal of Meeting of Minds cc (operating since 1997): a consultancy that specialises in institutional development, focusing on multi-disciplinary, inter-institutional and inter-sectoral initiatives. In addition, between 1996 and 2013, Dan maintained an adjunct relationship to the University of Natal/KwaZulu-Natal, where he assisted with the development of a variety of new initiatives. Dan has at various times participated in Rotary leadership activities, as vice-chair of a church board, in fundraising for scouts, as vice-chair of a community centre, and on a museum programme committee.

GRAHAME LINDOP

Grahame Lindop was born in the United Kingdom and came to South Africa in 1957. He was educated at Michaelhouse in KwaZulu-Natal and, thereafter, he studied law at the Universities of the Witwatersrand and Edinburgh. He joined the Anglo American Corporation of South Africa as a management trainee in 1967.

Grahame was transferred to the company's Property Division in 1969 as a member of the initial team to develop the Carlton Centre. He subsequently moved to Durban for four years where he gained experience in development, sales and marketing, before returning to Johannesburg in 1974 to head up the company's property leasing division.

Following the company's merger with Townsview Estates, he held various senior positions before being appointed Director of Leasing in 1987. In 1993 he established and became Managing Director of Anglo American Property Trading (AMTRAD), a specialised commercial property development company. The company subsequently established subsidiaries in the leisure and infrastructure sectors of the property industry. In 1999, Amtrad formed Amtrad Africa Developments (A.A.D.) a joint venture with empowerment company, Africa Construction.

Following the disposal by Anglo American of its property interests, Grahame acquired the business opportunities and the trading name, Amtrad, with effect from 1 February 2002 and he remains a Director of Amtrad. Under Grahame's control, Amtrad Properties (Pty) Ltd. has focussed on being a development facilitator, initiating and co-ordinating projects, and as a consultancy giving advice and assistance on sales, marketing and leasing.

In 2002, Grahame helped to establish The Ulwazi Partnership, specialising in the development of interactive educational experiences. Today it is a leading consultancy in the field of science education outside the classroom.

Grahame has considerable experience in most aspects of property development, as well as considerable negotiating and fundraising skills. Over the past forty years, he has been associated with many major developments, latterly including Gold Reef City Casino, Walter Sisulu Square of Dedication in Kliptown, Soweto, the first four-star hotel in Soweto, and major developments for the Bakgatla Ba Kgafela Tribe near Pilanesberg, North West Province.

Grahame has also played a leadership and fundraising role in a range of social and cultural interests, including the Market Theatre, Johannesburg, of which he was chairman for nine years until 1997 and the United World Colleges Scholarship Trust of South Africa, of which he was chairman for fourteen years until 2002. He also served on the Stadium Committee of Gauteng Cricket for 10 years until 2003, and is a patron of the French Institute of South Africa.

He is currently an executive board member of the National Arts Festival, which is responsible for the Grahamstown Festival, as well as being Council Member of the Grahamstown Foundation.