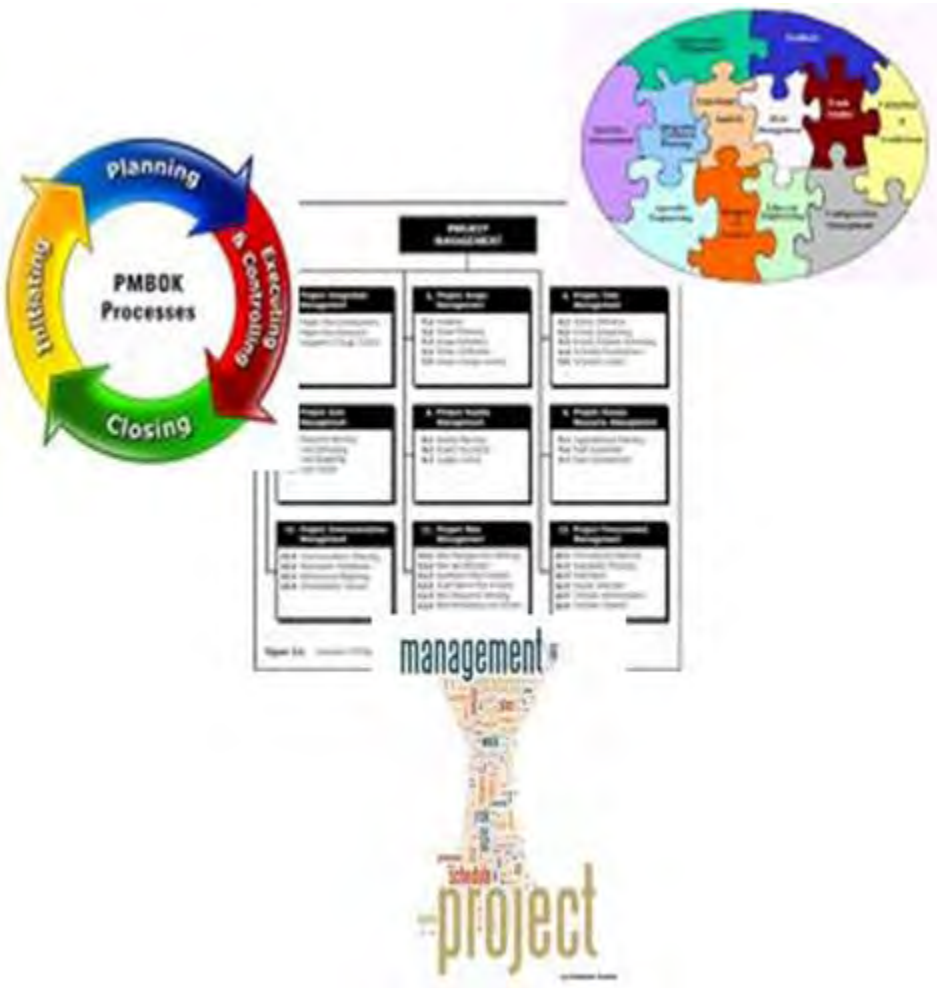


PROGRAMME AND PROJECT MANAGEMENT CAPABILITY STATEMENT



$$V/V_0 \rightarrow T/(0.53 A_0 V_0) \leq 1.0$$

$$V_s = (BRJ) \frac{1}{2} V$$

Shear = 0.80 V



Engineer shear strain is the *total* shear strain, i.e.,

$$\gamma_{xy} = \partial v / \partial x + \partial u / \partial y$$

Shear strain tensor is the *average* of two strains, i.e.,

$$\epsilon_{xy} = (\partial v / \partial x + \partial u / \partial y) / 2 = \epsilon_{yx}$$




BIGEN AFRICA SERVICES (Pty) Ltd

PROJECT AND PROGRAMME MANAGEMENT CAPABILITY

Management Consulting Services

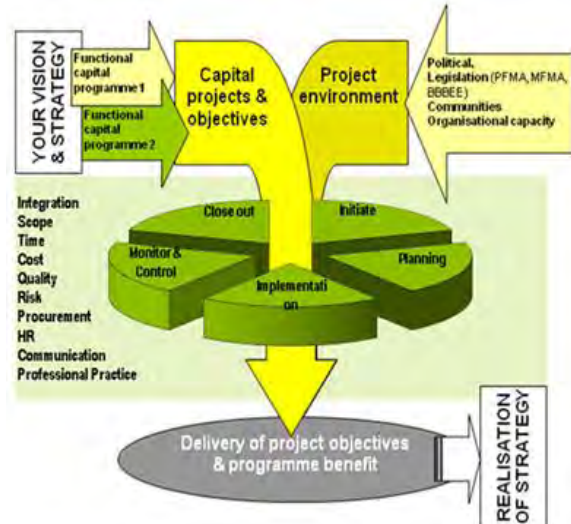
BIGEN AFRICA's Project and Program Management Service has its roots in international best practice and its success in individual partnerships. We believe that *good* projects are based on best practice methodology only, and that *exceptional* projects have the additional attribute of close partnerships with clients.

Our solutions are flexible and our approach is people focussed.

Our clients are individuals who happen to work for organisations. It is these unique individuals, inspired by organisational objectives that drive change in the world for a better future. Our passion is to share these objectives and make them a reality.

Our Services

- Project scope, cost and time management through customised systems and processes
- Project planning and development
- Contract Administration
- Quality and Risk Management
- Identifying Project Objectives per Client's Request
- Change Management
- Information, communication and reporting management through the development of customised web-enabled (if needed)/ systems
- Management of the Project Team
- Management of Stakeholder's Intervention
- Procurement Management
- Human Resources Management
- Overall Integration Management.





The Project and Programme Management Team

The project managers at **BIGEN AFRICA** are passionate, energetic self motivated individuals with diverse cultures and diverse professional backgrounds.

Our best practice is developed around PMBOK® and our project managers are registered PMP (Project Management Professionals) and PrCPM (South African Council for Construction and Project Management Professions) accredited to provide clients with assurance of professional service and accountability.

Our project management teams partner with innovative thinkers throughout the company and industry to find ways to realise our client's dreams.

The team has the experience, capability and expertise to provide clients with professional services in all project & programme management related aspects.

The team consists of :

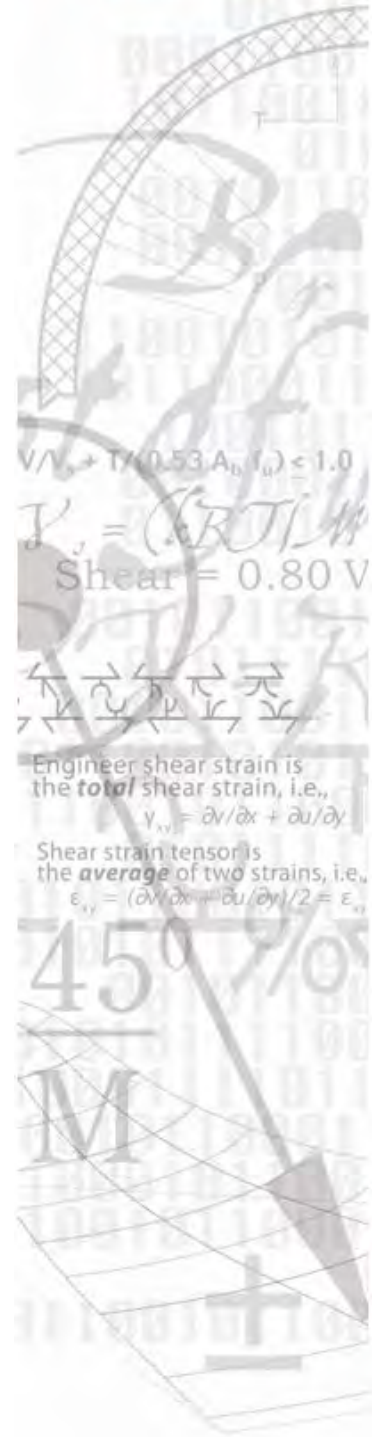
Leonard Curtis, PMP, PrCPM – a specialist project & programme manager with over 12 years relevant experience across a broad spectrum of sectors, and with an emphasis on the housing and municipal infrastructure sectors. Leonard has a successful track record of managing projects of all extents to successful conclusion.

Beate Scharfetter, PMP, PrEng – a specialist project & programme manager with over 10 years relevant project & programme management experience in specifically the water sector in South- and Southern Africa, complimented by a degree in Civil Engineering. Beate has successfully managed a number of large scale projects for the South African Water Sector to conclusion, with special emphasis on contract administration and institutional capacity building.

The team is supported by a dynamic group of young professionals, **Onalenna Motsumi, Lindiwe Nkosi & Ayanda Magubane.**

Project Support Offices

Sustaining development and providing infrastructure through capital expenditure programmes is probably the single most effective method for any government to demonstrate their commitment towards their supporters. Government is required to deliver various types of development such as:





- Affordable housing,
- Sustainable water supply,
- Road infrastructure,
- Electricity and sanitation.

In addition to this the rendering of efficient services such as disaster relief and transformation programmes sporadically also becomes the responsibility of government officials.

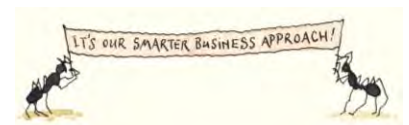
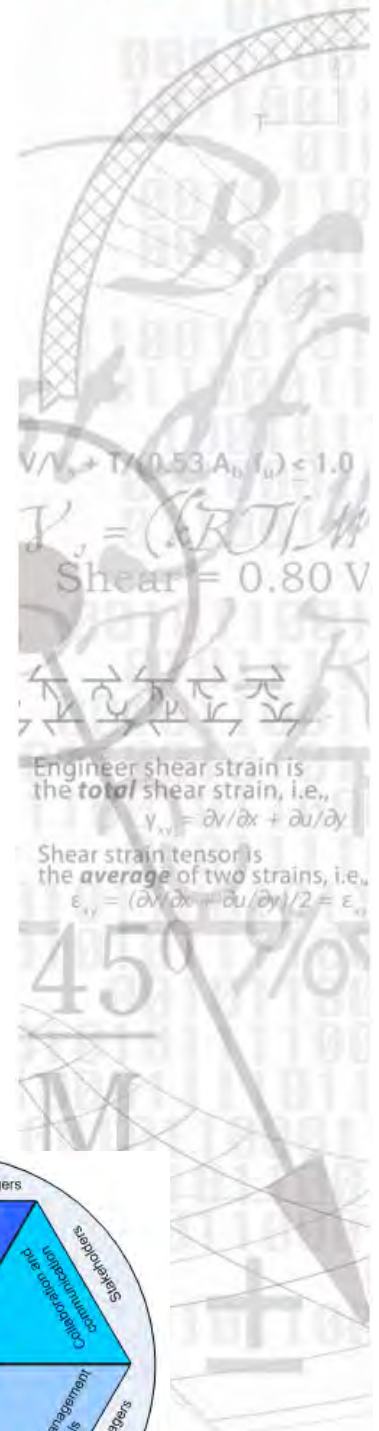
Meeting these requirements would normally not pose problems to any governmental structure, but delivery is further complicated by, amongst other, the following:

- Limited implementation time, due to either the constraint of a fiscal year, or the nature of the emergency or transformation to be addressed.
- Complexity regarding funding, i.e. the availability thereof and the reporting requirements of loan agreements.
- Delivering projects within a short timeframe without compromising quality.
- Ensuring empowerment of the community who ultimately benefits from the capital project, through training,
- Employment of local labour and retaining some of the capital spent within local enterprises.

BIGEN AFRICA understands these requirements and constraints and have through extensive hands-on experience, developed a set of key performance areas that are constantly monitored throughout the lifecycle of a programme.

The unique approach adopted by BIGEN AFRICA requires:

- Identification of key performance areas e.g. Time, Finances, Quality, Empowerment and Reporting.
- Timeous defining of key performance indicators within these performance areas.
- Allocation of weighted values to each performance indicator for evaluation purposes.
- Reporting, monitoring and evaluation through an electronic reporting system facilitated by a dedicated WEB page.
- Customisation of this innovative approach to meet programme specific requirements.





The implementation of a centrally managed capital programme, ensures development of a system that is:

- transparent,
- centrally located,
- offers accessible information,
- electronic communication and
- uniform reporting.

The client further benefits from a database with a list of service providers and the following systems are typically standardised in order to facilitate fast track implementation:

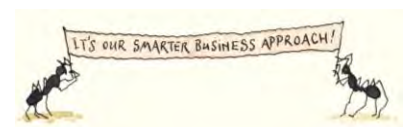
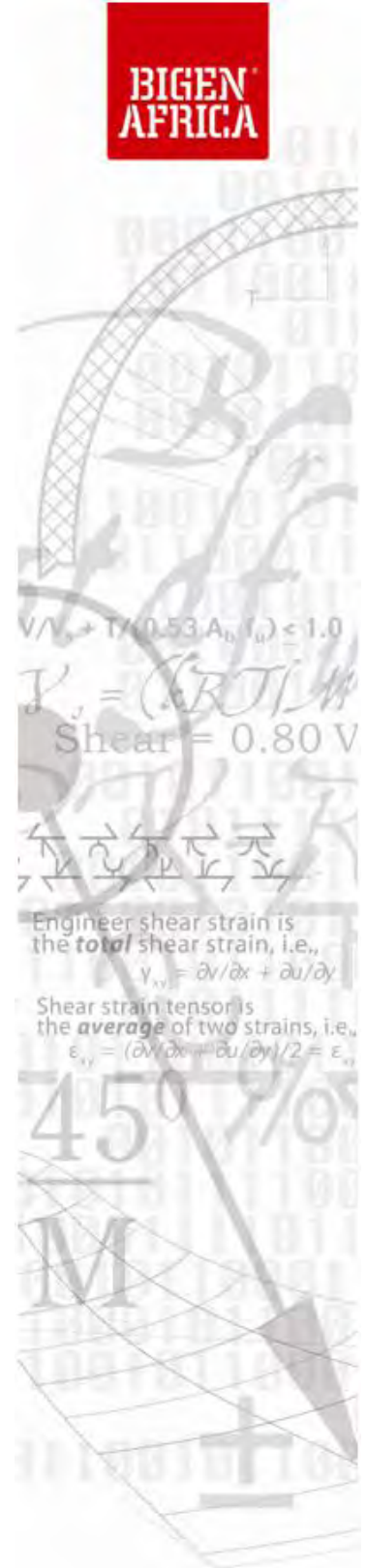
- appointment letters,
- contract documents,
- payment certificates,
- tender evaluations and
- reporting formats.

The availability of these standardised systems leads to the service providers incurring less cost and discounted rates can therefore be negotiated with them. These discounts can then be allocated towards the management cost of the programme, resulting in the overall capital budget not being affected by the management cost.

Through the fast track implementation of projects and the constant evaluation of performance, based on readily available information, BIGEN AFRICA has on numerous occasions assisted with the successful implementation of capital and emergency relief programmes. Thereby ensuring the delivery of projects on time, within budget and of approved quality.

Project Lifecycle

The appropriate lifecycle is developed for the project in partnership with our client. **BIGEN AFRICA** has, through constant innovation, developed hugely successful implementation mechanisms to deliver projects on a large scale by not only considering isolated project elements, but also business aspects at a project level.





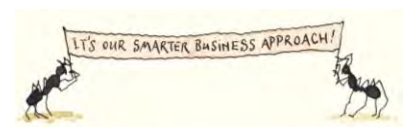
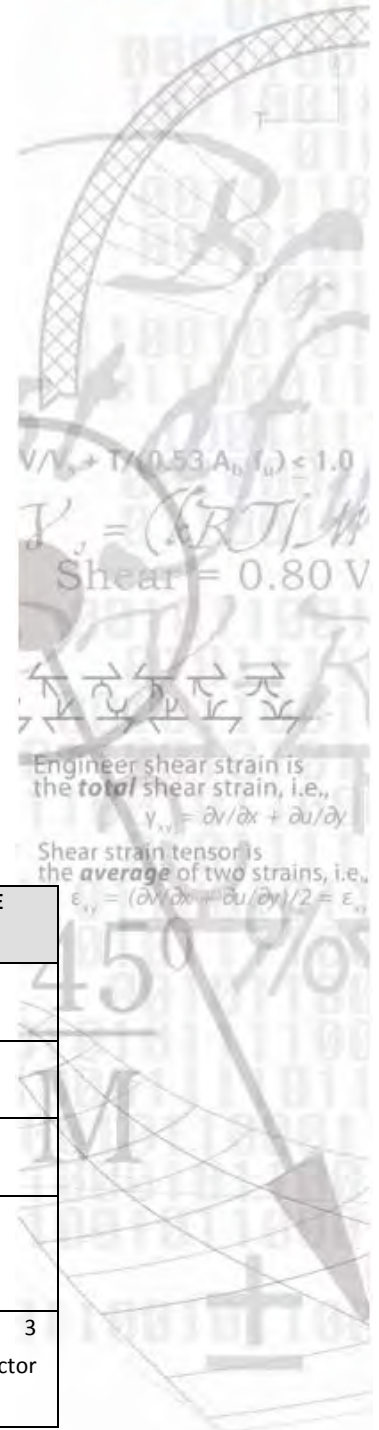
Our Value Proposition

- Effective, efficient and economical use of resources, tools and techniques to ensure projects and programmes are delivered on time, within budget and to specification;
- Innovation in the application of best practice project and programme management;
- Risk Management;
- Proven track records in contracts management and administration of large-scale programmes;
- Institutional capacity building;
- An integrated holistic approach towards project & programme management is applied – very much inclusive of the Client.

Our Track Record

BIGEN AFRICA has successfully completed a number of project and programme management initiatives, a selection of which is provided below.

CLIENT	NAME OF ASSIGNMENT	END DATE	PROGRAMME EXTENT
MP Dept of Housing	Project Management Support to Mpumalanga Housing	Nov 2009	R700 million
DWAF (now DWA)	National Drought Relief Emergency Programme	Mar 2009	R792 million
DWAF (now DWA)	Materials Grant from the Peoples Republic of China to the South African Government	Mar 2009	R250 million
DPLG (now COGTA)	Implementation of the Integrated Project Development approach as a solution to the fbw & fbs challenge	Mar 2009	R5.4 million
DWAF (now DWA)	Management Support Contract to the Water Services Sector over a 3 year period	Mar 2007	R21 billion, 3 year water sector programme





CONTACT DETAILS

Leonard Curtis – Technical Director

Tel: +27 (0) 12 842 8700

Fax: +27 (0) 12 843 9000/9001

email: leonard.curtis@bigenafrica.com

Beate Scharfetter - Technical Director

Tel: +27 (0) 12 842 8700

Fax: +27 (0) 12 843 9000/9001

email: beate.scharfetter@bigenafrica.com

P O Box 29 Innovation Hub Pretoria 0087

Allan Cormack Street off Hotel Street,

Cnr Meiring Naude Road, the Innovation Hub,

Pretoria, 0087



$$A_{ij} \delta_{ij} \leq 1.0$$

$$R_{ij} = 0.80 V$$

Shear strain is the average of two strains, i.e.,

$$\epsilon_{xy} = (\partial v / \partial x + \partial u / \partial y) / 2 = \epsilon_{xy}$$
