



Control Systems

SEM/SIM

Field Instrumentation

COMPANY PROFILE

Yokogawa
South Africa (Pty) Ltd



MESSAGE FROM THE MANAGING DIRECTOR

The Sub-Saharan African market is one of the most important markets in Yokogawa's global business plan towards becoming worldwide market leader in the Industrial Automation and Control Industry. Yokogawa has grown the Middle East & African region through responding to customers' need to maximise local content and has established local customer support capabilities throughout this region.

Service and engineering centres are operating and will continue to expand in African countries where required. Yokogawa Middle East & Africa has executed more than 700 projects including numerous mega projects, and currently has the largest engineering facility in the Yokogawa group of companies today, in terms of space. This capacity has

been expanded to support the growing Sub-Saharan African market.

Yokogawa is committed to continuously develop and supply solutions and services with optimum quality and reliability thereby contributing to industrial growth in Africa.

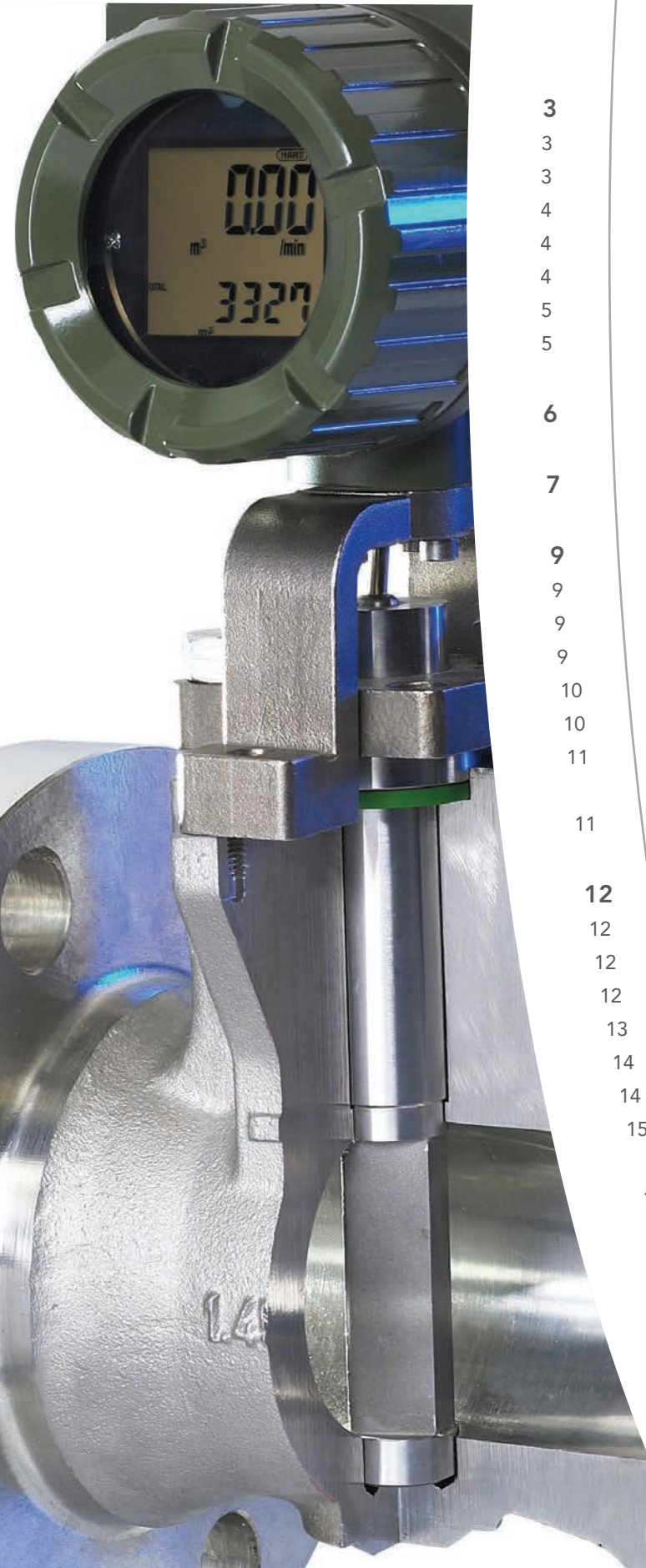
We would like to take this opportunity to assure you of our commitment to customer satisfaction.

EUGENE PODDE

Managing Director:
Yokogawa South Africa (Pty) Ltd

YOKOGAWA CORE VALUES

▶	Value Creation:	We create value together with customers providing superior performance and developing customer loyalty
▶	Collaboration:	We collaborate with our stakeholders to achieve mutual objectives
▶	Respect:	We respect and trust each individual
▶	Integrity:	Our business practices are fair and open
▶	Gratitude:	We show appreciation and recognise effort



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104 Years of Innovation

GENERAL OVERVIEW OF YOKOGAWA

Yokogawa is a leading manufacturer and engineering service provider in the fields of automation, measurement, and control. Founded in 1915 in Japan by Tamisuke Yokogawa, a Doctor of Architectural Engineering, Yokogawa Electric Corporation is dedicated to developing the most advanced control and instrumentation products and systems in the world. As a major industrial automation and test and measurement company, Yokogawa anticipates the needs of the times, continually tackling new challenges and exploring new markets in order to provide customer-centric solutions.

The Yokogawa Philosophy

As a company, our goal is to contribute to society through broad-ranging activities in the areas of measurement, control, and information.

Individually, we aim to combine good citizenship with the courage to innovate.

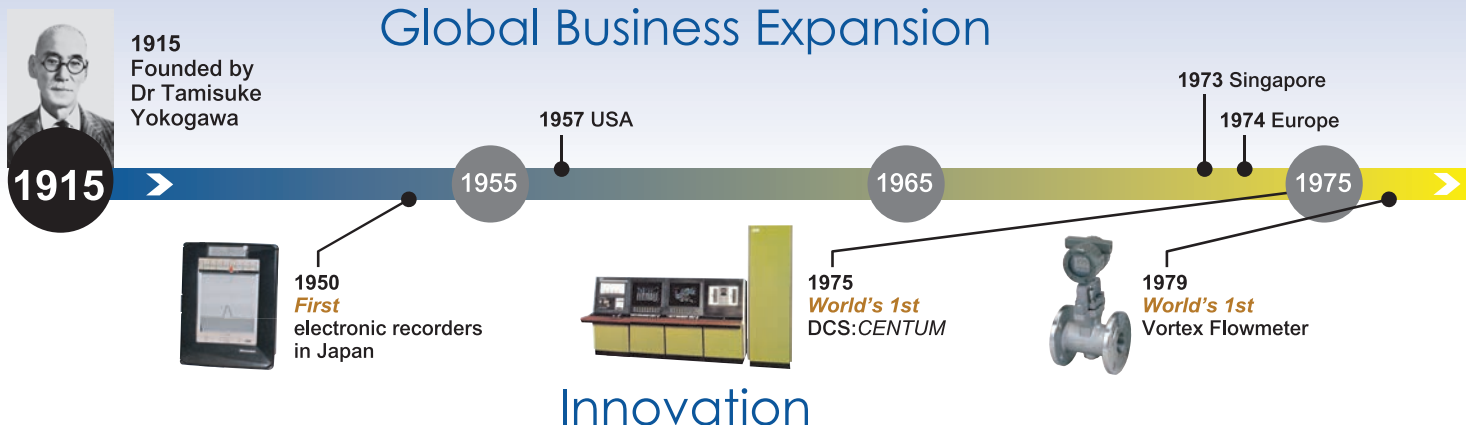
Corporate Governance

The Yokogawa Group recognises that the basic mission of corporate management is to secure sound and sustainable growth, and to earn the trust of its shareholders and other stakeholders. Therefore, the Yokogawa Group has set forth its basic compliance policies in the Standards of Business Conduct for the Group, and directors take the lead in working to see that business ethics are upheld and embraced throughout the Group.

In addition, the Yokogawa Group Internal Control Systems, which are intended in part to ensure the reliability of financial statements and the propriety of decision making, guarantee the appropriateness and efficiency of Group operations.

Yokogawa and its employees adhere to the highest standards of Compliance, Anti-Bribery Guidelines and Regulations.

Global Business Expansion



Corporate Social Responsibility

The company's mission, since its inception, has been to provide measurement, control and information technologies that are essential to various industries and thereby contribute to the sustainable growth of society. Yokogawa provides valuable solutions to its customers that realise a more sustainable society by saving energy, improving plant safety and conserving the environment. Yokogawa recognises international standards such as those set forth in the United Nations Global Compact and the ISO 26000 standard, and has introduced a Groupwide code of conduct and management system to ensure their observance.

Quality, Health, Safety & Environment (QHSE) Management

The founding spirit of Yokogawa is "Quality First". As a company, we will continue to strengthen the foundation of quality by fostering a quality mind-set, learning quality techniques and enriching quality regulations.

Yokogawa's philosophy is to contribute to society with full recognition of environmental conservation of the precious earth which is critical to humanity. We will continue to create environmentally friendly products and will fully abide with laws and regulations.

Yokogawa's basis for management is to promote, create and maintain health and safety for all personnel involved. It will invest resources appropriately in the continual improvement of Occupational Health and Safety management systems of the Yokogawa Group.

Yokogawa will continually improve performance of every organisation to ensure our Customers are satisfied with Yokogawa's products, services, solutions, and other offerings.

Every Yokogawa group company has a responsibility to create a QHSE Plan and its implementation must be measured

to determine that it is progressing towards meeting or exceeding the target goals.

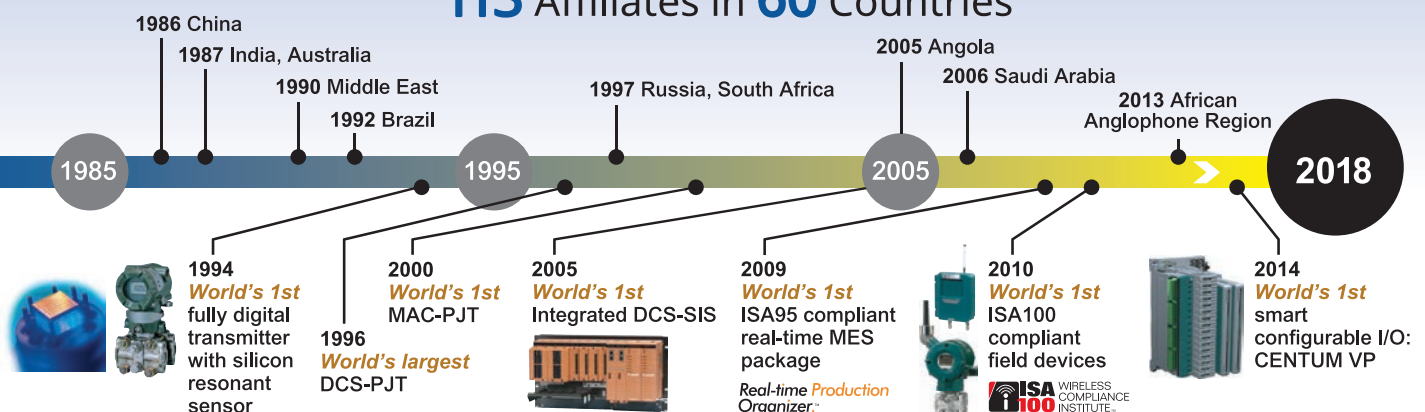
Yokogawa's vision is to become an unrivaled solutions and service company with a strong foundation of its Quality and HSE Management Systems.

Research & Development

Yokogawa aims to perform these 3 main activities regarding innovation:

1. **Maintain a Future Perspective:** Staying one step ahead of shifts in values so as to be able to pioneer the creation of new markets
2. **Co-Creating Value:** Interacting with our customers' R&D personnel to implement breakthrough investigative research that solves problems and develops hypotheses for generating new markets
3. **Obtain Core Technologies:** Strategically obtain and manage key intellectual properties that are vital for taking the initiative in new markets.

113 Affiliates in 60 Countries



The Corporate Brand

YOKOGAWA

Co-innovating tomorrow®

The corporate symbol reflects our values and ideals, and is the emblem for all Yokogawa employees. It symbolises that we are a dynamic, yet balanced corporation that provides real value. The image is inspired by the sun, which is the main source of energy for all life on earth, and is an affirmation of Yokogawa's commitment to benefit humankind through the development of the industrial sector.

Co-innovating conveys our determination to continually engage in the co-creation of value with our clients by working with them in long-term partnerships to develop solutions.

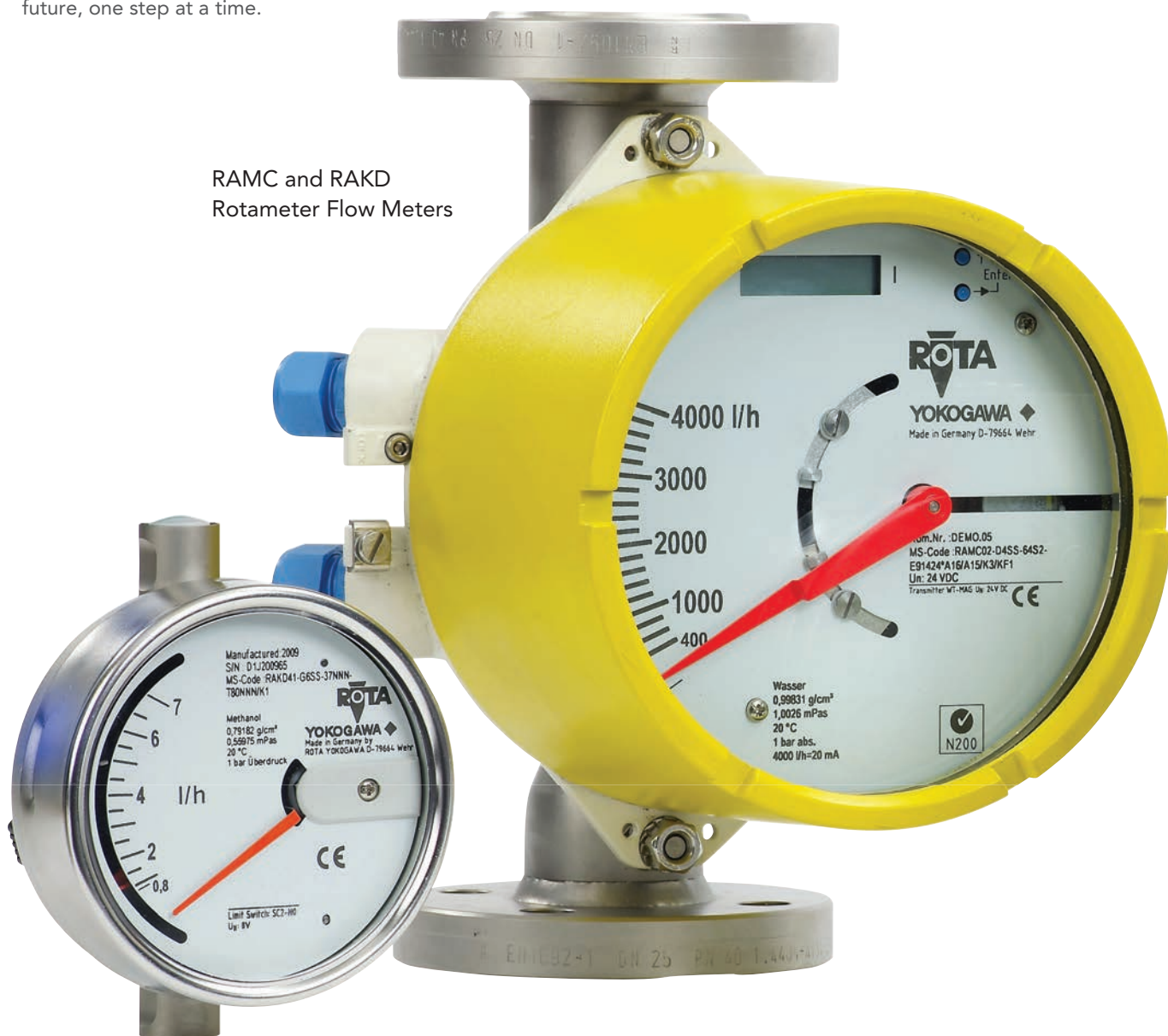
tomorrow expresses our resolve to move steadily into the future, one step at a time.

Corporate Data

Company name:	Yokogawa Electric Corporation
Founded:	September 1, 1915
Headquarters:	Tokyo, Japan
President:	Hitoshi Nara
Consolidated net sales:	404.4 billion Yen (fiscal year 2019)
Number of companies:	114 (worldwide)
Number of employees:	18,107 (worldwide)*
Operating in:	62 countries

*As of March 31, 2020

RAMC and RAKD
Rotameter Flow Meters



YOKOGAWA SOUTH AFRICA (PTY) LTD

Yokogawa first entered the South African market in 1978 when a local company was appointed as the sole distributor for Yokogawa process control instrumentation. In 1997 Yokogawa South Africa (Pty) Ltd was formerly established and reported to Yokogawa Europe. In April 2013, Identity Capital Partners (Pty) Ltd acquired a 25.03% stake and the Yokogawa South Africa, Angola and African Anglophone operations became part of the Yokogawa Middle East & Africa regional organisation.

Yokogawa South Africa prides itself on its dedication and commitment to Broad Based Black Economic Empowerment. We are now a Level 4 B-BBEE Contributor*, providing our customers with 100% recognition for any spend with Yokogawa South Africa (Pty) Ltd.

A major contributor to Yokogawa's success in South Africa is the local company's commitment to service excellence and technical support with more than 50 percent of staff committed to the provision of services. Having successfully completed more than 250 projects in the combined Sub-Saharan region, our engineers have extensive experience in delivering our integrated solutions.

The company has successfully built a large base of blue-chip customers across a diverse range of industrial sectors following the first Yokogawa DCS installation in South Africa in 1983.

Operating from its Head Office in Cresta, Johannesburg, Yokogawa South Africa has regional offices in KwaZulu-Natal and Cape Town. Our dedicated workforce of more than 130 employees services a broad client base across South African industry. The company enjoys an enviable reputation as a turnkey supplier of high performance, high quality process control and field instrumentation systems and services in the South African chemical, petrochemical, mining, pulp & paper, food & beverage, sugar, power generation and iron & steel industries.

Yokogawa South Africa (Pty) Ltd is an empowered South African company jointly owned by Identity Capital Partners (Pty) Ltd, a local black women-owned organisation, and Yokogawa Africa Holding BV, incorporated in the Netherlands. Yokogawa Africa Holding BV is ultimately owned by Yokogawa Electric Corporation, a company listed on the Tokyo Stock Exchange.

**As of September 2020*



COMPLETED PROJECTS AND INSTALLED BASE

Abengoa Solar
Field Instrumentation
Control & Safety Systems

ACTOM John Thompson
Field Instrumentation
Control Systems

Air Liquide
Field Instrumentation
Control Systems

Air Products and Chemicals
Field Instrumentation

Anglo American Platinum
Field Instrumentation

Anglo New Vaal Colliery
Field Instrumentation

Appletiser SA
Field Instrumentation

ArcelorMittal South Africa
Field Instrumentation
Control Systems

Aspen Nutritionals
Field Instrumentation

Associated Fruit Processors
Field Instrumentation

Bokomo Weet-Bix
Field Instrumentation

Bridgestone
Field Instrumentation
Control Systems

Brenn-O-Kem
Field Instrumentation

Cape Lime
Field Instrumentation

Ceres Fruit Processors
Field Instrumentation

Chemical Initiatives
Field Instrumentation
Control Systems

Chevron Cape Town Refinery
Field Instrumentation
Control & Safety Systems
MIS/MES

Chevron Lubricants
Control Systems

City of Cape Town
Field Instrumentation

Clariter ZA
Field Instrumentation

Corning Products
Field Instrumentation

Da Gama Textiles
Field Instrumentation

De Beers Marine
Field Instrumentation
Control Systems
MIS/MES

DEFY
MIS/MES

Distell
Field Instrumentation

Eastern Platinum
Field Instrumentation

Engen Petroleum
Field Instrumentation

Eskom Holdings
Field Instrumentation
Control Systems
MIS/MES

Evander Gold Mines
Field Instrumentation

Fine Chemicals Corporation
Field Instrumentation

Foskor
Field Instrumentation
Control Systems
MIS/MES

GrahamTek
Field Instrumentation

Harmony Gold
Field Instrumentation
Control Systems

Heat and Control
Field Instrumentation

Hi Calibre Engineering
Field Instrumentation

HOSAF Fibres
Field Instrumentation
Control Systems

Illovo Sugar (South Africa)
Field Instrumentation

Impala Platinum
Field Instrumentation

Isegen South Africa
Field Instrumentation
Control Systems
MIS/MES

Kelvin Power
Field Instrumentation

Kropz Elandsfontein
Field Instrumentation

KWV
Field Instrumentation

Lancewood Cheese
Field Instrumentation

Lanxess Chrome Mining
Field Instrumentation

Logichem Control
Field Instrumentation

Lonmin PLC
Field Instrumentation

MARS Africa
Field Instrumentation

MPACT Paper
Field Instrumentation

NATCOS
Field Instrumentation
Control Systems

National Brands
Field Instrumentation

NATREF
Control Systems
MIS/MES

NCP Chlorchem
Field Instrumentation

NGK Ceramics SA
Control Systems
MIS/MES

NECSA
Field Instrumentation

Nestlé
Field Instrumentation

NuWater
Field Instrumentation

Palabora Mining Company
Field Instrumentation

PetroSA
Field Instrumentation

PROXA Water
Field Instrumentation

Rand Refinery
Field Instrumentation

Rand Water
Field Instrumentation

RCL Foods
Field Instrumentation

Richards Bay Mining
Field Instrumentation

Rustenburg Platinum Mines
Field Instrumentation
MIS/MES

SAFRIPOL
Field Instrumentation
Control Systems

SA Metal Group
Field Instrumentation

SAPPI Southern Africa
Field Instrumentation

**SOUTH
ATLANTIC
OCEAN**

Siyanda

**Northern
Cape**

Namakwa

**West
Coast**

**Cape
Winelands**

**Western
Cape**

CAPE TOWN

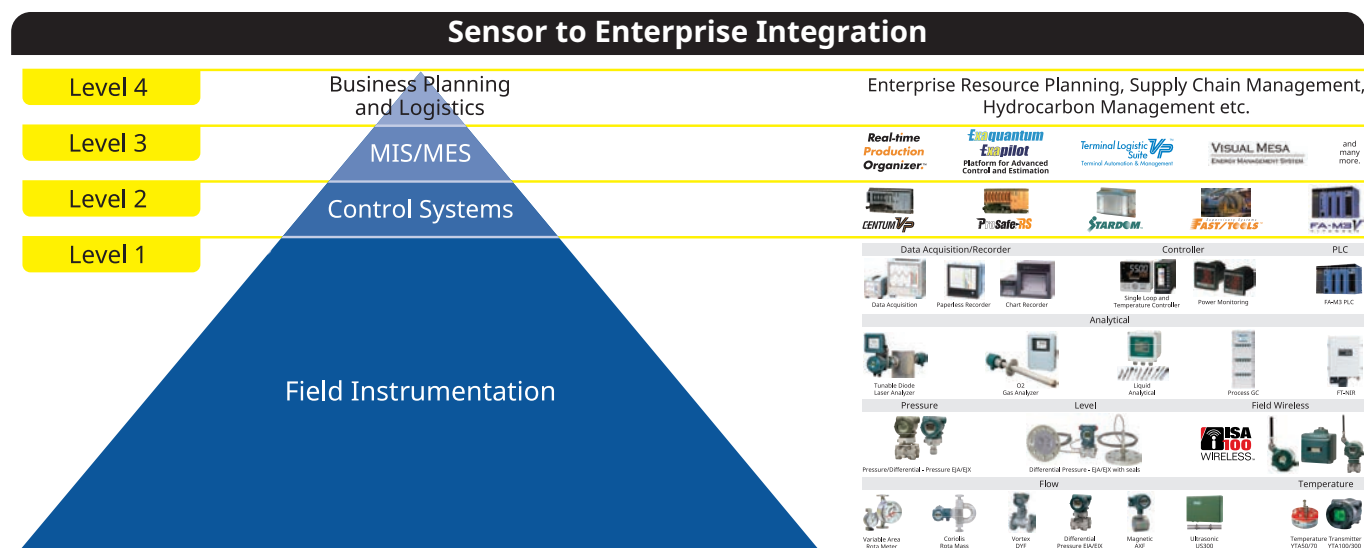
*Cape of
Good Hope*

Overberg

Cape Agulhas



BUSINESS OVERVIEW



Field and Analytical Instrumentation



We offer a wide range of field instruments for use on production lines. These include transmitters and flowmeters that measure fluid pressure, temperature, and flow rate.

With one of the most comprehensive families of sensors and on-line analyzers for pH, conductivity, dissolved oxygen, combustion oxygen, humidity, liquid and gas density and process gas chromatography, Yokogawa is recognized as a world leader in the field of analytical equipment.

Plant-wide Wireless Solutions



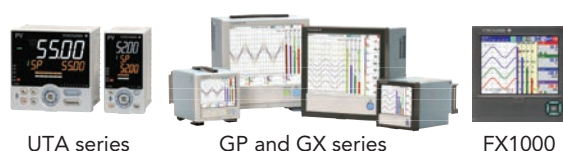
Field Wireless instruments

Yokogawa launched the world's first wireless field products conforming to the ISA100.11a standard in 2010 and continues to spearhead industrial wireless technologies.

Recently, Yokogawa released a new, large-scale, reliable, next-generation plant-wide field wireless system which focuses on the following three key features:

- Reliability: reliable high-performance field wireless and redundant technologies
- Flexibility: flexible architecture supporting the full range, from small to large-scale plants
- Openness: open ISA100.11a standard allowing third-party field wireless devices to be connected

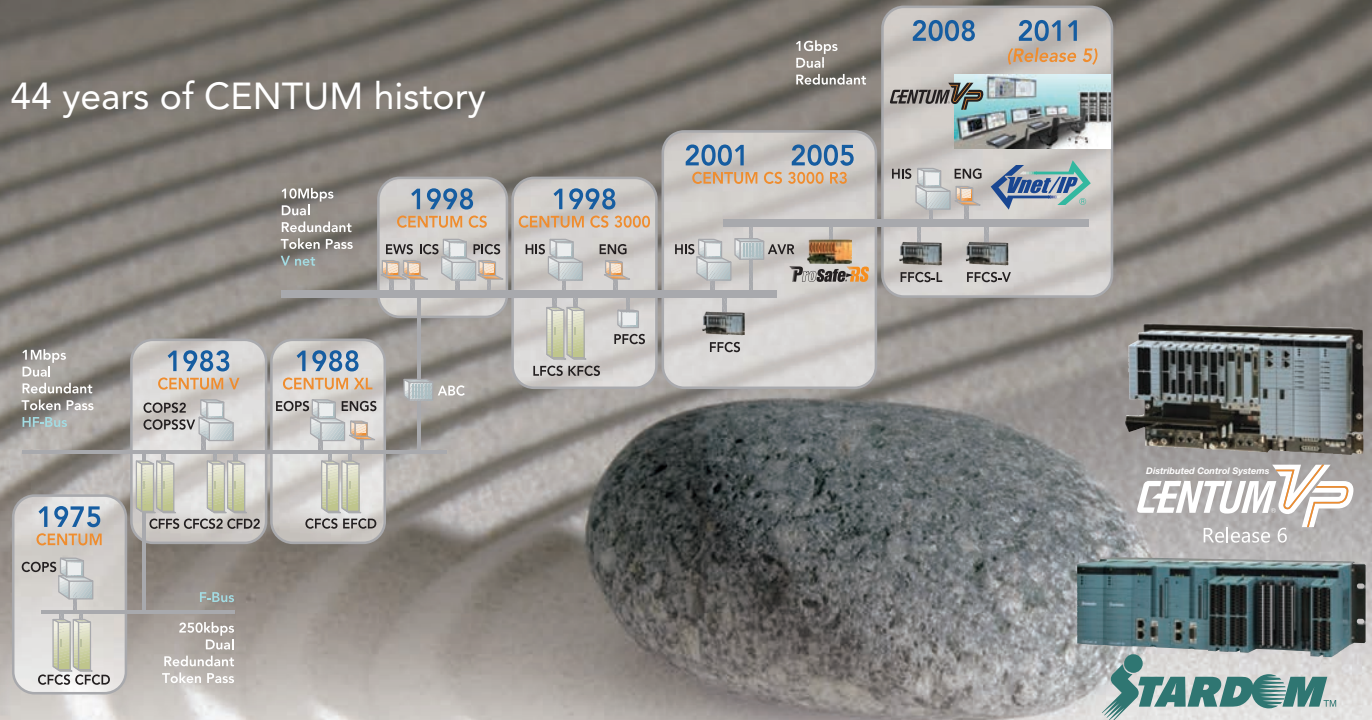
Network Solutions (Recorders, Controllers and Data Acquisition)



Yokogawa's Process controllers maintain an environment based on a set of specific rules by reading levels, temperatures, pressures and speeds, adjusting them to meet application requirements. Yokogawa also covers the complete range of Paper and Paperless recorders and is recognised as a world leader in recorders.

Production Control Systems

44 years of CENTUM history



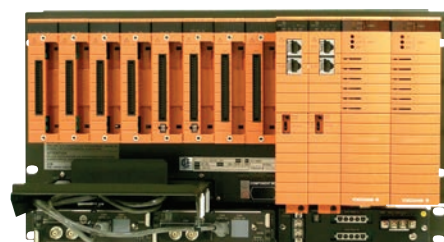
We provide our customers with a range of systems that support the safe and efficient operation of their plants. These include highly reliable production control systems for the control and monitoring of plant operations, safety instrumented systems that are fully integrated with plant production control systems to achieve the highest levels of safety, and network-based control systems and programmable logic controllers that are both highly reliable and versatile. Yokogawa PLCs offer the fastest update rates for high speed applications and are electrically and environmentally robust.

Yokogawa offers multiple automation and control strategies, architectures, and solutions for every application size and complexity. Our distributed control system (DCS) is designed for large, complex industrial processes, and geographically distributed applications. The DCS can employ advanced process/supervisory control applications, operator-centric, enterprise-integrated information, configuring disparate systems into a holistic process overview and coordinated control strategy.

CENTUM VP is the latest generation of the CENTUM DCS series. CENTUM VP features unrivaled 99.99999% availability along with an intuitive human machine interface and a versatile field control station suitable for both large and small scale data processing tasks. To date, more than 25,500 CENTUM series systems have been delivered around the world.

Safety Instrumented Systems

Yokogawa has over 50 years of experience in the development and implementation of safety systems. The world's first truly integrated safety controller was released by Yokogawa in 2005, achieving absolute integrity between distributed control systems (DCS) and safety instrumented systems (SIS) for plant automation. The ProSafe-RS is certified by the German certification organization, TÜV, to meet Safety Integrity Level (SIL) 3 specified in IEC 61508. Our expertise covers all major applications such as ESD (Emergency Shut Down), F&G or FGS (Fire and Gas Systems), BMS (Burner or Boiler Management Systems) as well as HIPPS or HIPS (High Integrity (Pipeline) Protection Systems).



ProSafe-RS



Management Information Systems (MIS) / Management Execution Systems (MES)

Yokogawa's MIS / MES systems consistently ensure fast return on investment and help operators to keep their plant operating environments optimized for years after the initial implementation.

Yokogawa's MIS / MES platform applications collect and store large volumes of process data providing actionable information that can be viewed and analysed by key personnel.

Common to all Yokogawa products is our commitment to ensuring there is always a clear migration path available for all our customers.

Exaquantum

Exapilot

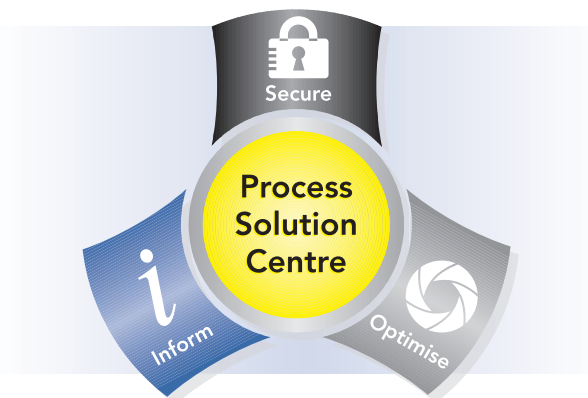
PRM[®]
Plant Resource Manager

**Real-time
Production
Organizer.™**

Terminal Logistic Suite **VP**[™]

VISUAL MESA
ENERGY MANAGEMENT SYSTEM

Advanced Process Solutions



Safety Excellence

- Advanced Decision Support
- Alarm Rationalisation
- Regulatory Control Stabilisation
- Control Room Design
- Incident Analysis
- Integrated Closed Circuit Television (CCTV)
- Cyber Security

Asset Management

- Optimise Plant Asset Effectiveness
- Maximise Plant Uptime
- Plant Asset Management

Production Excellence

- Energy Management Solutions
- Best Practice Pilot
- Regulatory Control Stabilisation
- Platform for Advanced Control and Estimation (APC)
- Blend Property Control
- Real-time Production Organiser
- Operator Training System

INDUSTRY SOLUTIONS

Oil & Gas

Yokogawa has a wealth of experience in every part of the oil and gas business, from offshore and onshore facilities to pipelines, terminals, and deepwater operations. We provide solutions that enhance safety, ensure accurate and reliable operation, and increase plant efficiency while solving these customer challenges:

- **Equipment failures that lead to costly downtime:** Unplanned downtime disrupts production plans and hurts the bottom line. The high availability of Yokogawa products prevents oil & gas fields from unplanned downtime, saving you money and increasing the safety of your process.
- **Tough Competition and the need to improve earnings:** Yokogawa's highly accurate and stable field digital technology gives oil and gas companies a competitive edge by reducing unplanned downtime and eliminating the need for travel to field sites. Yokogawa provides a path for migration to this state-of-art technology.
- **Unmanned and manned wellheads distributed over a wide area:** Manned and unmanned wellheads are often distributed over a wide area and connected by many types of communications infrastructure. Integrating such complex operations is a key contributor to improved efficiency. Yokogawa offers an integrated human machine interface (HMI) that enables unified monitoring and alarm handling. It makes the system easier to operate, results in fewer operator errors, improves safety, and reduces training time and expense.

Petrochemical

Whether you produce Petrochemicals, Inorganics or Intermediates, chemical companies are under cost and margin pressures to deliver products in a timely and efficient manner while maintaining safe and compliant operations. Additionally, chemical companies need to adjust to fluctuating feedstock and energy prices and to provide the most profitable product mix to the market.

Yokogawa has been serving the automation needs of the bulk chemical market globally and is a recognised leader in this market. With products, solutions, and industry expertise, Yokogawa understands the market and production needs and is well positioned to provide a reliable, and cost effective solution through the lifecycle of your plant.

Mining & Mineral Processing

Yokogawa's core operating platform, CENTUM VP, empowers users in the Mining and Mineral processing industry to compose workflows ensuring maximum efficiency and profitability, always allowing total insight and control of the process chain. From mining, materials handling, mineral processing, smelting, refining and recovery, all production capabilities and statistics are easily available.

Yokogawa's commodity capabilities include:

- Base Metals (i.e. Aluminium and Copper)
- Coal
- Diamonds
- Ferrous Metals (Iron ore, Chromite, Manganese and Vanadium)
- Gold
- Platinum Group Metals (i.e. Platinum and Palladium)
- Rare Earths
- Uranium





Power

Yokogawa entered the power business in the mid 1970s, with the release of the EBS Electric Control System. Since then, Yokogawa has steadfastly continued with the development of our technologies and capabilities for providing the best services and solutions to our customers worldwide.

The effectiveness and efficiency of power plant operations depend on the availability of key performance information about the plant and the process. Yokogawa delivers a single-architecture monitoring and control system that integrates information from all facets of a power plant and keeps the plant personnel well informed. The industry-leading availability, reliability, and long-term stability of the Yokogawa automation platforms ensure an operating environment where personnel have 20:20 vision of the entire operation.

Once into commercial operation, competitive power plants pursue operational excellence by continually improving efficiency and preventing/minimizing abnormal situations. Yokogawa enables optimization solutions that empower plant personnel under both normal and abnormal conditions. Knowledge-based tools and consulting services enable continual productivity improvement, advanced alarm management, and integrated plant asset management.

During the relatively long life cycle of a power plant, there comes a time when the instrumentation and control systems must be renewed to maintain a competitive edge. Yokogawa supports power plants with expert services that maximise efficiency and minimise cost over the entire life cycle. From initial design, construction, and daily operation to revamp and re-instrumentation, Yokogawa stands by your power plant. This long-term partnership ensures bottleneck-free performance and ongoing optimization that bring speed and flexibility to your business.

Yokogawa supports a wide range of applications from conventional power to renewable energy including:

Fossil Fuel Fired Power Plants:

- Coal/Oil/Gas Fired
- Co-Generation
- Combined Cycle
- Independent Water and Power Producers (IWPPs)
- Industrial Boilers
- Simple Cycle

Renewable Power Plants:

- Biomass
- Geothermal
- Hydro
- Solar CSP and PV
- Waste to Energy
- Wind





Water & Waste Water

Yokogawa delivers cost effective solutions through the water and wastewater plant controls and instrumentation. This improves the performance of plants, reduces their operation costs and ensures that they can operate competitively in today's water markets. Yokogawa assists plant owners to identify areas of plant operations that benefit from modern controls running on the latest digital control system platform, with modern field instrumentation.

With its cutting edge digital control platform and modern field instrumentation, Yokogawa supports a wide range of control applications in both the public and private sectors.

Yokogawa supports the following applications:

- Potable Water Treatment
- District Meter Area (DMA)
- Wastewater Treatment Plant
- Seawater Desalination Plant (RO and MSF)
- Industry Multi-utility Plant (Desalinated Water, Demineralized Water, Steam, Electricity, Wastewater)
- Water Pipeline / Distribution Network
- Water / Wastewater Pumping Station
- Leak Detection & Integrated Loss Management Solutions

Food & Beverage

Yokogawa Distributed Control Systems (DCS) have been active in the Southern African Sugar industry for nearly 25 years. During this time, Yokogawa has provided complete factory automation solutions to sugar mills, sugar refineries and ethanol plants in South Africa, Swaziland, Mozambique and Zimbabwe. With their proven high reliability and availability, Yokogawa DCS's are suited to the demands of the sugar industry.

Yokogawa has a wealth of experience within all areas of the Food and Beverage industry including:

- **Food:**
 - Dairy Products
 - Chocolate Blending
 - Sugar
 - Baked Goods
 - Edible Oils
 - Condiments
 - Isomerized Sugar Process Control
 - Flour Milling Process Control
- **Beverage:**
 - Beer Brewing
 - Whisky Brewing
 - Spirits and Wine Production
 - Carbonated / Non-Carbonated Beverage Production
 - Orange Juice



Yokogawa's more than 40 years of accumulated knowledge in terminal automation, will deliver profits to the customer's bottom line, typically achieving a return of investment (ROI) in less than a year.

A true level 3 (Production/MES layer) solution, the TLS-VP is scalable and modular in design for application in simple or complex multi-owner, multi-user business environments. TLS-VP has been developed for the automation of operations at terminals where Oil, Gas, LNG, LPG, Chemicals, Petroleum, and other bulk materials are loaded/unloaded from road tankers, rail cars, and marine vessels. In addition to having a direct link to the operating environment and an ERP interface with the office environment, TLS-VP provides separate modules for loading/unloading, blending, movement operations, path selection, jetty scheduling, nomination, data management, inventory management, order management, security control and audit trail, system maintenance, stock control, quality control and reporting.

Terminals

End-users in the Oil & Gas, LNG, LPG, Chemical, Fuels and Bulk Storage industries face many logistical challenges including quicker product delivery processes, improving loading efficiency, flexibility to change, improving safety, increasing efficiency of administrative work, cost reduction of personnel, data integration, visualisation of operations and traffic management. Yokogawa's Terminal Logistic Suite (TLS) VP has been developed to overcome these challenges. The enhanced features of the TLS-VP, together with

Terminal Logistic Suite **VP**TM



ENGINEERING CAPABILITIES

Yokogawa delivers a total automation solution, covering the entire lifecycle of projects, as your automation partner. This proven method brings experience, engineering, technology, safety, and lifecycle support, while at the same time reducing risk and lowering overall costs.

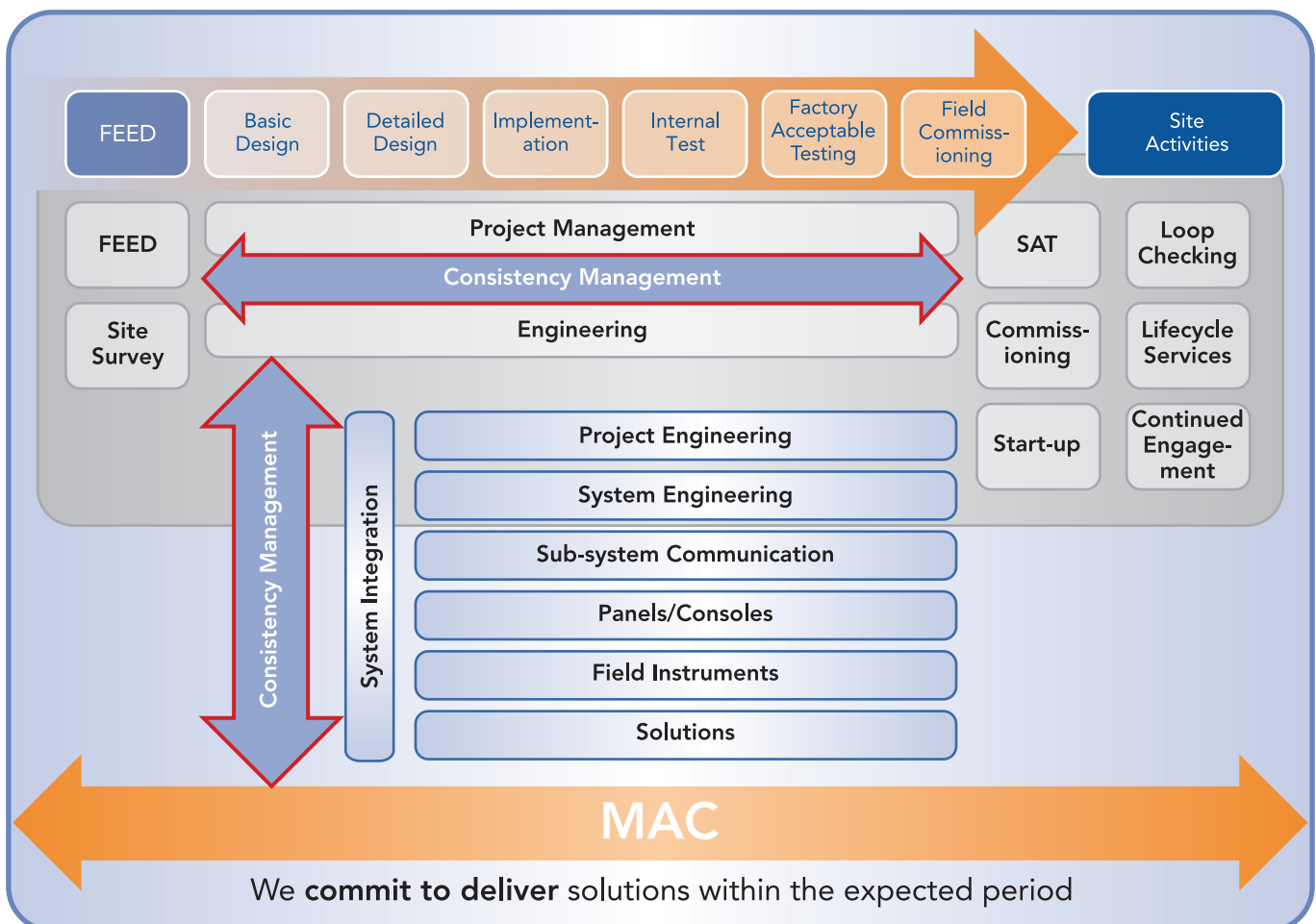
Combining full understanding of customer requirements with professional management of multiple vendors, Yokogawa is strongly positioned to deliver the set objectives of any project.

Yokogawa's Project Execution Team applies excellent communications with all parties including the Contractor, End User, Licensor, etc. to ensure successful project delivery. Yokogawa has the advantage of a local and global knowledge base and resourcing for project execution.



Yokogawa's Engineering capabilities include:

- Green Field Projects Execution
- Main Automation Contractor "MAC"
- Front End Engineering Design "FEED"
- Functional Safety Management
- Systems Migration / Replacement



LIFECYCLE SUPPORT SERVICES



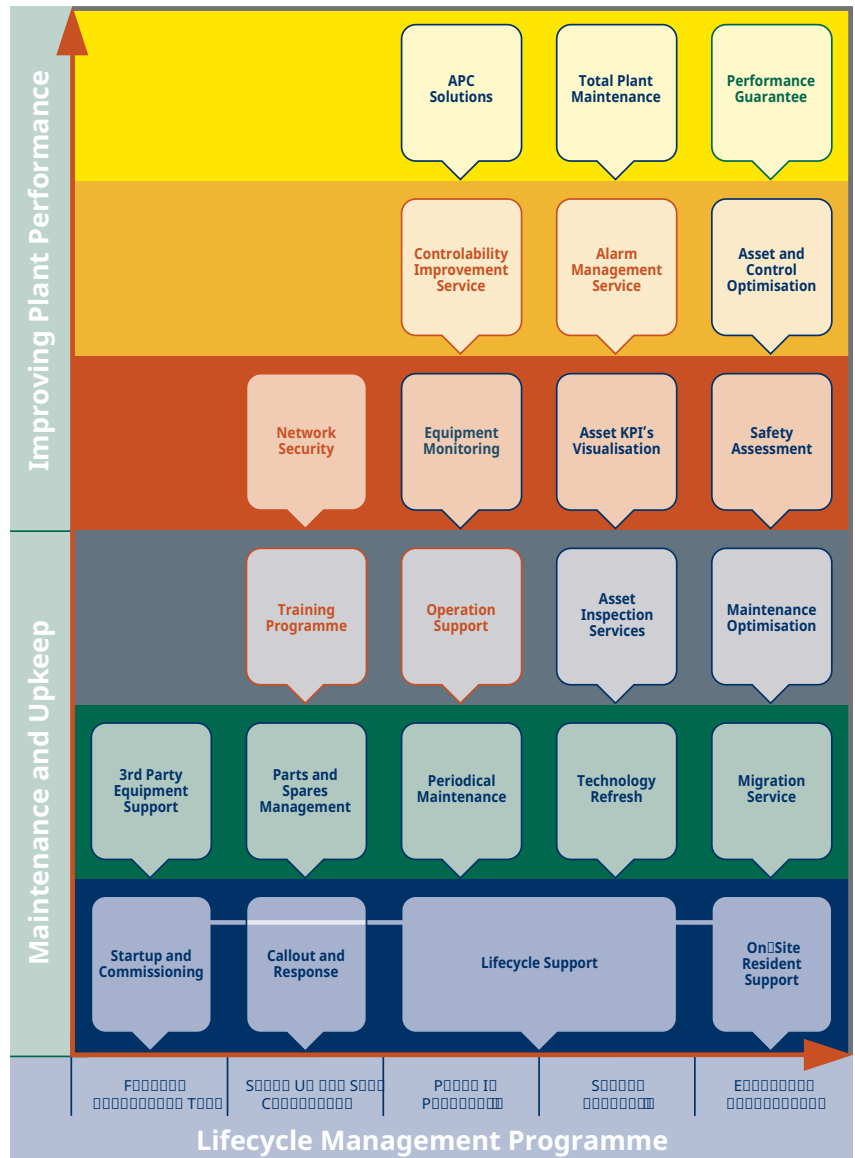
Yokogawa prides itself in providing customer centric solutions. We partner with our customers to find optimum outcomes for your process plant and provide holistic and tailored service solutions that:

- Ensure minimum production losses and predictable operational costs;
- Preserve assets;
- Sustain operational performance;
- Maximise profits.

Our reputation of uncompromising reliability in providing maintenance and support products is evident with the Yokogawa Lifecycle Agreement (LCA). This demonstrates our commitment to prolonging the satisfaction of ownership and providing a range of options on new and existing systems.

Yokogawa's life cycle support services include the following:

- Preliminary Assessment Work prior to executing an agreed technical proposal
- Emergency Services offering access to the Yokogawa regional and global Response Centre
- Telephone consultation regarding maintenance and resolution of operational issues
- Remote maintenance services to remotely operate and diagnose problems



Periodic Maintenance

- Shutdown Maintenance
- Software/Hardware Support Services
- Parts Holding
- Bench Repair
- Calibration
- Reports on periodic and shutdown maintenance service support activities
- Field Instrumentation and Control Systems Training offered at the customer's site or Yokogawa offices
- Remote Backup

TRAINING

Africa is experiencing a severe shortage of well qualified, competent and experienced personal in the areas of control and field instrumentation. Technical training provides a platform for companies to improve the skill levels within their organizations. Well trained employees will be able to pre-empt plant systems outages and therefore save time and money. Yokogawa provides flexible training courses in the areas of control and field instrumentation, deepening the participant s understanding and skill levels within this high technologically driven industry.

The learning material for field Instrumentation and systems training has been accredited by Society for Automation, Instrumentation, Measurement and Control (**SAIMC**) to comply with the Engineering Council of South Africa (**ECSA**) guidelines for Professional Registered Candidates to earn Continuous Professional Development (**CPD**) points. Yokogawa s training centre and facilitators are registered with the Manufacturing, Engineering and Related Services Sector Education Training Authority (**MerSETA**).

All our courses are outcome-based and incorporate a practical components driven on real plant simulators. On successful completion of both a theoretical and practical assessment, candidates are issued with a Yokogawa certificate. Training is offered primarily at the Yokogawa South Africa Head Office but the vast majority of courses can be offered on site. The training department is also involved in the construction of virtual and real plant simulators.

The following system related courses are offered by Yokogawa:

- Centum VP: Essentials — Engineering — Maintenance — CAMS
- ProSafe RS Engineering
- ExaQuantum User/Administrator
- Stardom/Fasttools
- PRM/Profibus
- BATCH



The following Field Instrumentation related courses are offered by Yokogawa:

- Measuring Principles
- Advanced
- Analytical: Zirconia Oxygen Analyzer/ pH Measurement/Gas Chromatography
- Wireless ISA 100
- Training Simulator



Admag AXF
Flowmeter

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(Pty) Limited**

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