



# ADAPT AND THRIVE

## GAMSBERG'S DIGITALISATION ROADMAP

**Mining companies around the world are abandoning traditional business models and embracing new technologies and ways of working. As one of the most digitally advanced new mining projects in Africa, Gamsberg's design and construction has aimed to be at the forefront of this digitalisation revolution from the start of operation.**

For VZI, the digital transformation is not something that is planned in years to come, but one that is taking shape today. Great strides have been made in recent years in the development of smart technology and equipment. This has given impetus to VZI's 'Adapt and Thrive' approach. The next wave in both investment and implementation will be in the integration of these systems to enable our teams to make data driven decisions to find efficiencies, improve planning, lower risk, create safer working environments & unlock more value from our resources.

In November 2017, VZI announced a significant collaboration initiative between global innovation giant, GE, and leading mining software developer, MineRP. The first component of this collaboration will be the launch of 'Smart Ore Movement' at Gamsberg, with more developments to follow in the coming months.



**Gamsberg will be one of Africa's most digitally advanced mining operations.**

# GAMSBERG'S DIGITALISATION ROADMAP: "ADAPT AND THRIVE" continued

The concept of 'Smart Ore Movement' centres on the need to ensure that all available information about the state of the mine, the quality of ore, the conditions of the concentrator and the value of the product are not only made available to the mine management team in real-time, but that the information is presented in such a way that it allows for minute-by-minute decision-making.

The 'Smart Ore Movement' initiative allows business information to be derived from spatial data which has its source in disparate and stand-alone systems that will:

- Provide the ability to blend near real-time and manage adherence to the plan;

- Ensure effective grade control
- Allow continuous spatial reconciliation of actual production against plan.

The initiative will allow the Gamsberg management team to apply appropriate operational insight and to ultimately co-act with the mining contractor to effectively manage the mine's key performance indicators which are critical levers influencing the variance between the predicted and actual mine feed to plant.

Ultimately, Gamsberg is aiming to be a 'best-in-class' operation – one that is safe, efficient and sustainable, and that delivers benefits to a broad range of stakeholders.

## SMART ORE MOVEMENT

Enterprise Spatial Data Infrastructure	Blending Management Capability	Stockpile Grade Model Capability	Production KPI's and Reconciliation Capability
Spatial data can be treated as an enterprise asset	Predictable grade to plant	Measuring of mining efficiency	Effective Contractor Management
One single set of spatial and transactional data	Production schedules to contractor fleet for optimal blending	Reconciling of grades	Ability to react in time to enforce planned production targets
No 'point-to-point' integration between information domains and application data	Optimized plant operation	Provide information to SAP regarding ore movement	Operational discipline and excellence
Data, people & systems utilised by reporting programs	Grade in stockpile and concentrator	Manage the orebody as stock transactions in the ERP	

