THE SUSTAINABLE MANAGEMENT STRUCTURE
THE CONCEPT OF SUSTAINABLE MANAGEMENT REFERS TO A MANAGEMENT APPROACH THAT:

- Efficiently integrates economic, environmental and social issues into the mining operations
- Aiming to secure the support, cooperation, and trust of the local community in which a mine operates and other stakeholders
MINING COMPANIES VIEW SUSTAINABILITY AS AN STRATEGIC ADVANTAGE TO:

- REDUCE THE FINANCIAL RISK
- ACCESS TO FINANCIAL MARKETS
- ACCESS MINERAL RESOURCES
- ACCESS HUMAN RESOURCES

THE BUSINESS CASE ON SUSTAINABILITY

“MARKET VIEWS INTANGIBLE ASSETS SUCH AS REPUTATION, AS A GROWING PORTION OF A COMPANY’S VALUE”
SUSTAINABLE MINE MANAGEMENT

DEALS WITH:

- A STRATEGY FOCUS
- INTEGRATING SUSTAINABILITY
- MANAGING FOR SOCIAL LICENCE
- MANAGEMENT OF PRE-PREODUCTION, PRODUCTION & POST PRODUCTION
SUSTAINABILITY HAS BECOME A FUNDAMENTAL PILLAR OF THE COMPANY'S STRATEGY

*SUSTAINABILITY REPUTATION IS AN IMPORTANT INTANGIBLE ASSET IN MINING COMPANIES*
SUSTAINABLE MINE MANAGEMENT

DEALS WITH:

- A STRATEGY FOCUS
- INTEGRATING SUSTAINABILITY
- MANAGING FOR SOCIAL LICENCE
- MANAGEMENT OF PRE-PREODUCTION, PRODUCTION & POST PRODUCTION
THE ORGANIZATIONAL STRUCTURE OF ANY COMPANY RESULTS FROM THREE BUSINESS PROCESSES:

- SEGMENTATION (Functions, business..)
- INTEGRATION MECHANISMS
- EMPOWERMENT (Decision rights/Culture)

“THE INTEGRATION OF SUSTAINABILITY REQUIRES SPECIFIC INTEGRATION MECHANISMS”
“THE INTEGRATION OF SUSTAINABILITY REQUIRES OF SPECIFIC INTEGRATION MECHANISMS”

- POSITIONS, ROLES, AD-HOC COMMITTEES
- STANDARDS AND SYSTEM
- PUBLIC REPORTING & INDEPENDENT ASSURANCE
TYPICAL LIST OF SD STANDARDS

- Behaviour, Awareness and Competency
- Communication and Engagement
- Catastrophic Hazards
- Operational Integrity
- Health and Occupational Hygiene
- Environment, Biodiversity and Landscape Functions
- Contractors, Suppliers and Partners
- Social and Community Engagement
- Life Cycle Management – Projects and Operations
- Product Stewardship
- Incident Management
- Emergencies, Crises and Business Continuity

(Source: Xstrata Plc)
THE SUSTAINABILITY MANAGEMENT SYSTEMS

- Support a detailed SD planning processes
- Establish—for each SD objective— the measurement units, targets and responsibility
- Reporting system to all management levels
- Allow for analysis and decision taking
SUSTAINABLE MINE MANAGEMENT

DEALS WITH:

- A STRATEGY FOCUS
- INTEGRATING SUSTAINABILITY
- MANAGING FOR SOCIAL LICENCE
- MANAGEMENT OF PRE-PREODUCTION, PRODUCTION & POST PRODUCTION
THE SOCIAL LICENCE TO OPERATE

- IS THE PROCESS OF GAINING THE ACCEPTANCE OF THE HOSTING COMMUNITY TO CONDUCT MINING OPERATIONS

- SOCIAL LICENCE IS BASED ON TRUST AND OFTEN WON OR LOST THROUGH THE INITIAL INTERACTIONS BETWEEN LOCAL COMMUNITIES AT THE EXPLORATION AND PROJECT DEVELOPMENT STAGES.

- TRUST AMONG STAKEHOLDERS REQUIRES OF THEIR EFFECTIVE PARTICIPATION IN THE DECISION MAKING REGARDING ENVIRONMENTAL AND SOCIAL RISKS AND EXPECTED BENEFITS.
HR MANAGEMENT IS FUNDAMENTAL TO THE INTEGRATION OF SUSTAINABILITY AT OPERATIONS LEVEL SINCE EMPLOYEES:

- PLAY A CRITICAL ROLE IN FACILITATING THE SOCIAL LICENSE.
- SERVE AS THE COMPANY’S PORTAL TO THE COMMUNITY.
- SAFETY CULTURE (most efficient mines are also the safest ones)
SUSTAINABLE MINE MANAGEMENT

DEALS WITH:

- A STRATEGY FOCUS
- INTEGRATING SUSTAINABILITY
- MANAGING FOR SOCIAL LICENCE
- MANAGEMENT OF PRE-PREODUCTION, PRODUCTION & POST PRODUCTION
THE SD CHALLENGE AT PRE-PRODUCCION STAGES RELATES WITH:

- PERMITTING AND MINING REGULATIONS AND STANDARDS
- THE SOCIAL AND ENVIRONMENTAL RISKS AND BENEFITS FROM MINING
- MANAGEMENT OF STAKEHOLDERS
SUSTAINABLE MANAGEMENT: PRODUCTION AND POST-PRODUCTION STAGES

SOME KEY MANAGEMENT AREAS:

- ROCK FRAGMENTATION
- LOADING AND HAULING
- GROUND CONTROL
- MINERAL PROCESSING
- MINED ROCK AND TAILING
- MINE CLOSURE
INTEGRATING SUSTAINABILITY INTO OPERATIONS IS A MANAGEMENT RATHER THAN AN ENGINEERING TASK

THE CONCEPT OF SUSTAINABLE MANAGEMENT REFERS TO THE MANAGEMENT APPROACH THAT INTEGRATES SUSTAINABILITY AT:

- **ALL ORGANIZATIONAL LEVELS (CORPORATE, DIVISIONAL AND OPERATIONS)**
- **ALL FUNCTIONAL LEVELS (STRATEGY, PLANNING AND IMPLEMENTATION).**
- **ALL STAGES OF THE MINE LIFE CYCLE (EXPLORATION, PROJECT, PRODUCTION, AND POST-PRODUCTION)**
THE SUSTAINABLE MANAGEMENT STRUCTURE

Corporate Vision & Mission
Sustainability Framework, Standards & Goals
Organizational Structure (SD Integration)
Leadership & Motivation (HR Management)
Exploration Management
Mine Project Management
Mine Planning and Resource Management
Operations Management
CONCLUSIONS

SUSTAINABLE MANAGEMENT MUST BE DRIVEN BY BUSINESS CONSIDERATIONS I.E. TO SEEK LONG TERM COMPETITIVE ADVANTAGES

THE BENEFITS OF SUSTAINABLE MANAGEMENT HAVE AN ASSOCIATED COSTS RELATED TO EARNING AND MAINTAINING THE SOCIAL LICENCE TO OPERATE

MANY MINING COMPANIES HAVE SUBSTANTIATED A BUSINESS CASE FROM SUSTAINABILITY AND ARE ACHIEVING COMPETITIVE ADVANTAGES
BEFORE...

DURING...

AFTER...

THANK YOU