



For those seriously contemplating investing into a mining company which is developing a series of projects, it is essential to understand the following (the introductory section to the TARVA guide on evaluating business opportunities in the Mining Industry). This document provides guidance and templates to TARVA led team members when evaluating mining opportunities. This introductory section lays out 13 high level considerations which are essential to understand.

1. A Mining Project Lifecycle has 11 stages
  - Exploration and Discovery stage
  - Evaluation Stages
    - Conceptual > Order of Magnitude > Pre-feasibility > Feasibility
  - Execution Stages
    - Execution (Detailed engineering and construction)
    - Commissioning and ramp-up
    - Project Close-out (covers production start-up and final close-out of construction activities and contracts)
  - Production and operations enhancement
  - Brownfield Expansions and adjoining property mergers
  - Mine closure
2. Stage-gates are required for a project to progress – and are normal for a larger mining company
3. Larger mining companies normally assess their projects by referencing and assessing against guidelines and guidance notes
  - Commercial standards and guidance notes
    - Project evaluation guidelines
    - Valuation parameters
  - Technical Standards and guidance notes
    - Technical evaluation guidelines
    - Study definition guidance notes
    - Major project execution guidance notes
  - Risk management policies and standards
4. Understanding Financiers requirements for the raising of project funding is critical.
  - Bankable feasible studies are normally required for funding approval
5. Evaluating an opportunity in mining requires a clear understanding of the 11 stages above.
6. Understanding detailed fundamental value in a project requires an understanding of how a project is formulated through the studies phases
  - Moving from OoM to FS typically takes a few years if done properly
  - Some businesses try and combine the 4 stages of studies into 2 or 3 stages – usually sacrificing knowledge and raising the risk profile in execution and production
  - When done properly, and following a strong studies guideline process, the commercial and technical risks will be fully understood and a good understanding of the value (ranges) of a project will have been gained. At this point investors should have the best knowledge possible on which to make an investment decision.

7. Understanding the key study objectives, activities and deliverables for each study stage is critical for assessing the (pre-execution) stage that a project is really at.
  - Often “early stage” project promoters / sellers will assert that they are at FS level when the reality is that they are still at OoM or PFS at best
  - **See Appendix 1** for an outline of what to expect at each stage in the study process
8. A clear understanding of the business strategy for each opportunity being assessed is critical.
  - At the highest level the project leader will develop a view of the “business opportunity” in terms of potential markets, products, distribution channels, development sequences and production capacity(s)
  - You will also develop a picture for the holding company addressing
    - Business structure
      - partners, ownership interest, management control, technology rights, change of ownership rules, shareholder and BoD processes
    - Strategic fit within the holding company portfolio
    - Technology and Resources
      - necessary technology agreements and availability of expertise to implement-operate the business
    - Production planning options
      - This is critical to understand the value enhancement potential in the short to long term and the upsides available within the fund investment timeframe
    - Marketing
      - A detailed strategy covering pricing, market entry and competitor reactions, and customer requirements
  - See **Appendix 2** for an outline for how to assess a business strategy
9. 25 categories of issues need to be considered when assessing a business for acquisition.
  - All of these issues should be addressed in a FS document for a project that is already in execution or production
  - If the project is still in a stage of study – these issues will be at different stages of development and consideration
  - **See Appendix 3** for the list of 25 categories and the sub-issues within each. **Appendix 3** will also highlight the milestone summary for each of the 25 categories at each stage of study.
  - A full copy of a study guidance note is available which outlines the 25 issues, the sub-issues and what is expected at each of the 4 stages of study. **See appendix 6.**
10. The 25 sections represent the major study activities – and are a useful guide for deciding who “owns” which activity in the study team.
  - Of course when the team is small a team member may own more than one activity
11. A basic glossary of terms and acronyms is provided in **Appendix 4**
12. **Appendix 3** is converted into a **due diligence checklist** and is also the basis for a **request for information and data.**
13. **Appendix 5** highlights the complexity of mining in terms of how a major mining company will manage its specialist guidance for the purposes of optimizing studies (and evaluating acquisitions).