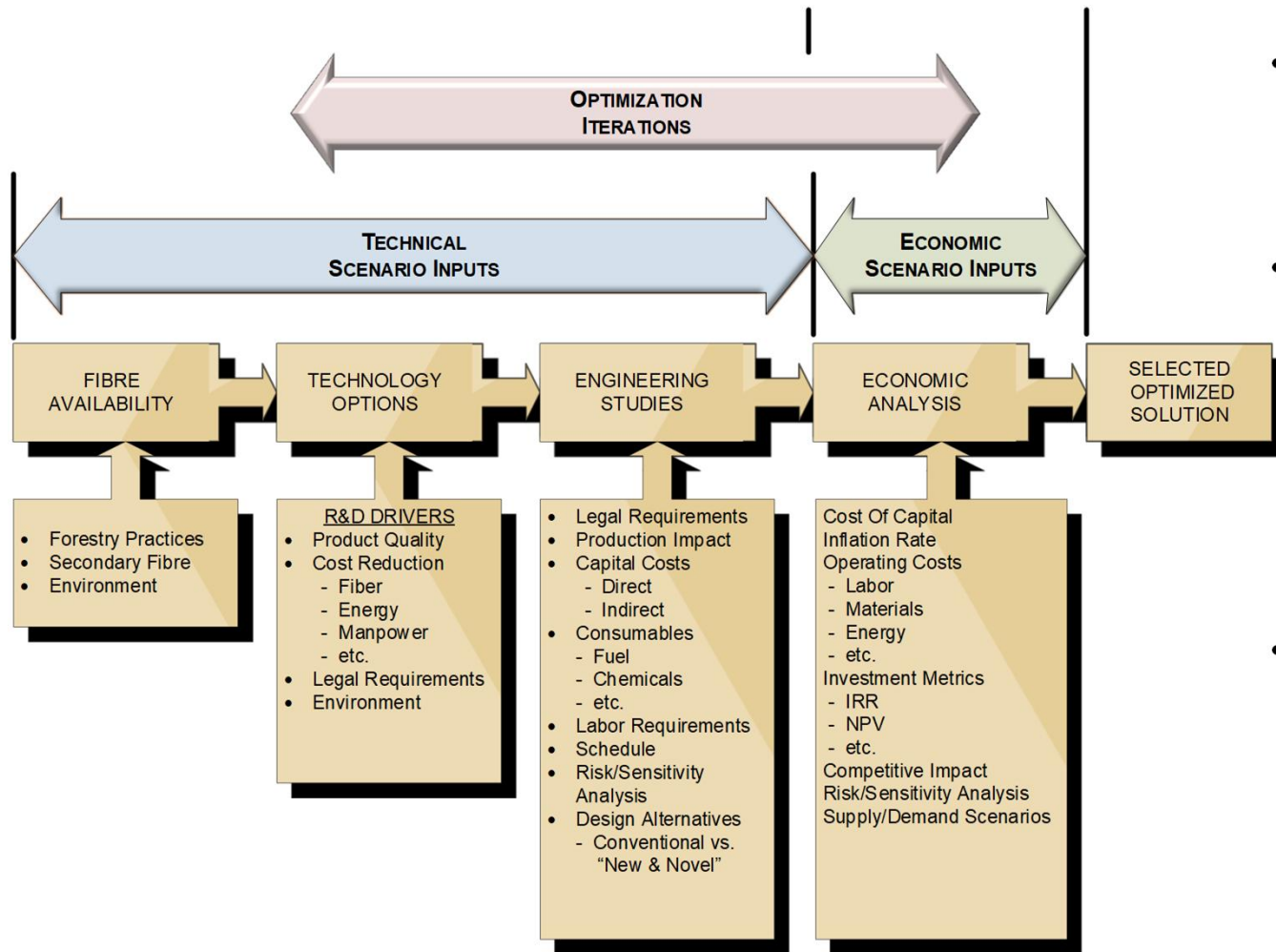


# INTERRELATIONSHIPS BETWEEN TECHNOLOGY AND ECONOMICS

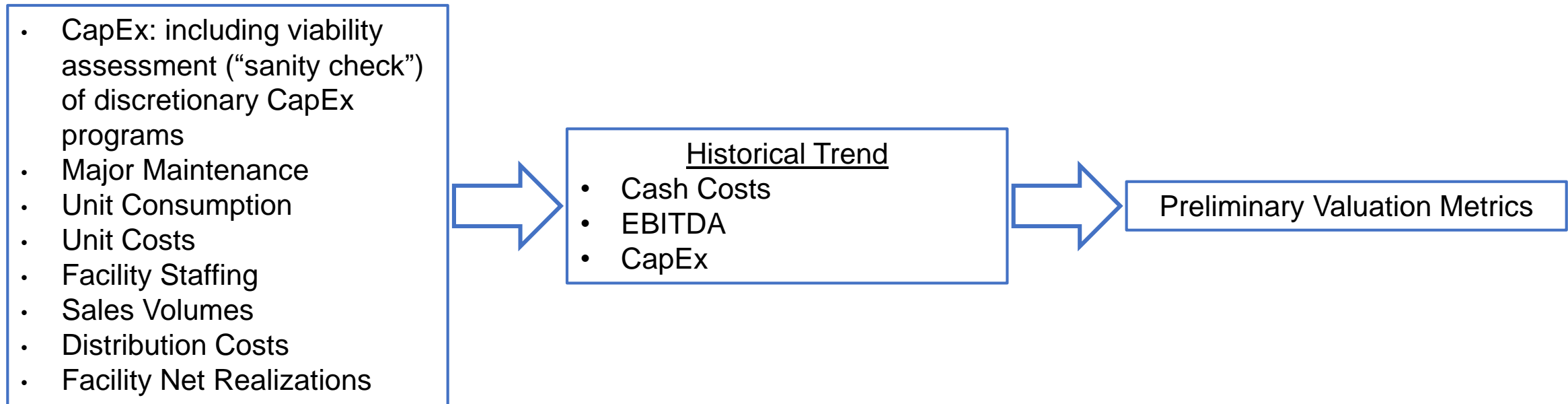
## NLK Techno-Economic Fundamentals



- Economic performance is dependent on more than just the physical assets involved but includes issues of operating culture, raw material reliability, markets, etc.
- NLK's team of expert associates have both design and operating expertise in a broad range of Pulp & Paper technologies and are able to economically assess and interpret facility performance as well as evaluate staffing and production requirements providing effective views of the current and potential future performance of the facility being reviewed.
- Anticipating opportunity success is highly dependent on an understanding of both traditional and developing markets. NLK can use its knowledge of these markets in the evaluation of potential project performance.

# NLK TECHNO-ECONOMIC DUE DILIGENCE: A COST EFFECTIVE, STEPWISE APPROACH TO FACILITY EVALUATION

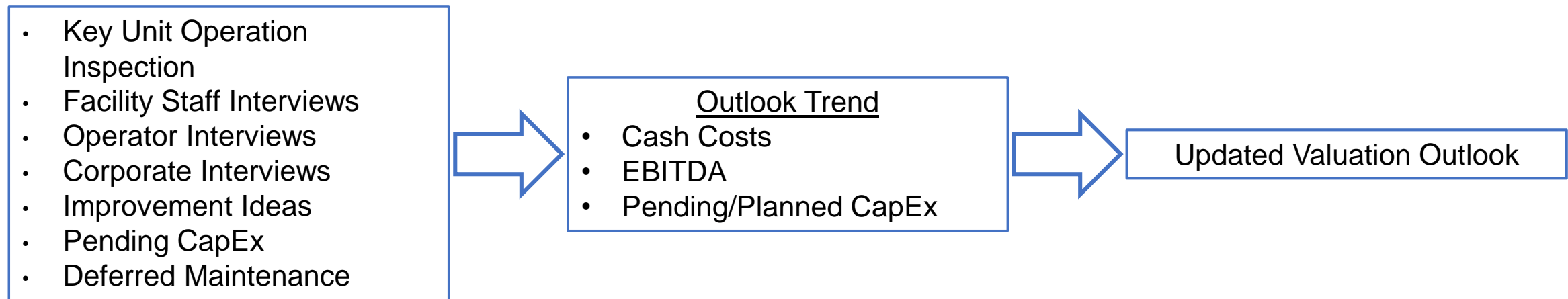
## Step 1: Desk-top Assessments of Historical Facility Data



Historical maintenance, CapEx, operating (production, unit consumption/unit cost) and facility net sales revenue data are analyzed prior to any site visit. Based on trend analyses, trailing EBITDA can be estimated leading to preliminary valuations based on EBITDA multiples with allowances made for expected CapEx.

# NLK TECHNO-ECONOMIC DUE DILIGENCE: A COST EFFECTIVE, STEPWISE APPROACH TO FACILITY EVALUATION

## Step 2: Facility Site Visit



Inspection of key unit operations to expose any “fatal flaws” (buried skeletons). Interviews with key facility personnel, to assess capital plans, deferred maintenance and views on opportunities for improvement, leading to an estimate of the outlook for EBITDA based on pending unit costs and sales realizations.

EBITDA is adjusted considering expected CapEx as well as deferred maintenance catch-up costs to provide an update or “Outlook” valuation metrics based on facility inspections and other assessments.

# NLK TECHNO-ECONOMIC DUE DILIGENCE: A COST EFFECTIVE, STEPWISE APPROACH TO FACILITY EVALUATION

## Step 3: Assessment of Opportunities for Improvement

### Low-Hanging Fruit (Opportunities)

- Debottlenecking
- Downtime Analysis
- Deferred Maintenance Catch-up
- Unit Consumption Benchmarking
- Unit Operations Improvements

This is typically a near-term assessment (given the limited time allowance and scope for Due Diligence engagements), of opportunities for improvement.

Evaluations could include following items:

- Downtime assessments based on maintenance (preventive or lack of), decoupling of unit operations with adequate surge capacity
- Unit consumptions benchmarked to comparable technology in other locations
- Prefeasibility (order-of-magnitude) CapEx estimates to determine ROCE of improvement initiatives
- Debottlenecking evaluations (based on duration curves of unit operations)