

DCG's Performance Benchmark Process starts by getting you and your management team to have a focused and informed conversation about what is important versus what is urgent. This process allows you to focus and define specific goals and values that will drive value-rich decision making.

The multistep process facilitates an organization or a line of business consensus on the most important goals and values by measuring a sample of project related data and analyzing the information for comprehensive insight into your IT organizations productivity and quality performance

A baseline is a measurement of how an organization is performing at a specific point in time. A baseline provides an organization with self knowledge and a proverbial line in the sand. What a baseline does not provide is a comparison against the past or industry information. Baselines can be created for any discrete unit of an organization ranging from a specific process to a whole department or company. Benchmarks compare an organizations baseline against a new baseline and/or industry baselines to determine if change has occurred (time series) or whether change is required (comparison to industry data). The process of developing a baseline versus developing a benchmark is the same until the analysis step.

The accompanying VISIO diagram will be helpful interpreting the flow outlined below.

Step A: Define Goals and Values

Goals: The goal defines why the organization is doing the baseline/benchmark which will drive sample size and the types of data to be collected. Goals need to be defined either by the organization's senior management or by the specific stakeholders that will consume the baseline/benchmark output.

Values: During the goals definition we need to qualify what they are going to be compared against; e.g., select appropriate sources for benchmark comparison, or a pure baseline where there is no comparison to industry data and any resulting recommendations will not be quantified based on external expectations.

Typical baseline/benchmark comparisons include:

- Technology
- Language
- Platform
- Complexity
- Industry
- Scope (range of size)
- Type of work (development, enhancement, outsource, maintenance)

Process: Management Goals Workshop (Executive Management) The consultant will facilitate a group goal, question and metric session to identify a superset of organizational metrics.

Participants: Senior and Middle Management IT Decision Makers (sample if very large organization) and Consultant

Techniques: GQM, Affinity Diagramming, Brainstorming

Output: Draft Goals, Questions and Metrics

Session Duration: 90 – 180 minutes

Synthesis of Data: One day of effort

Decision Points: If a benchmark is to be performed the goals and specific data requirements will be compared to DCG Knowledge Bases and external data sources. If relevant comparison data is not available DCG will determine whether a baseline will meet the client's goals. If a baseline will not meet the client's needs then the goals will be revisited to focus on measures and metrics that have relevant comparison data.

Step B: Select a Sample

The projects (or applications) in the sample will be driven by the goals in Step A. The goals are used to define the pool of projects from which the sample is drawn. The size of the sample will be driven by the need for statistical significance and the perceived level of variance. Random samples have the highest degree of validity however relevance is equally important. Generally samples of less than 10 projects / applications might be indicative but rarely are statistically significant.

Participants: Sponsor and/or Client Point of Contact and Consultant, Senior Managers for Review

Techniques: Random Sampling, Segmentation, Confidence Intervals

Output: Sample of Projects and/or Applications

Session Duration: N/A

Synthesis of Data: One day of effort

Decision Points: Data must available for the projects in the selected sample. If the projects in the sample can't be measured or deemed not relevant new projects will be selected or if required escalated to the project stakeholders for a decision.

Step C: Data Collection

Data collection potentially follows three paths

Sub-step C.1: Quantitative Data Collection

Quantitative data is typically composed of the collection of size data (function point counting) and other data (e.g. effort, duration, defects and potentially others).

Function Point Counting: The counter and his/her point of contact will gather system documentation, hold an overview with a Subject Matter Expert (SME) prior to counting, count the project or application and then with review the count with the SME.

Participants: Client Point of Contact, Client SME and Consultant

Techniques: Function Point Counting (or other functional measures)

Output: Size in Function Points

Session Duration: 30 minutes per session (overview and review)

Synthesis of Data: Counts range from one day to longer.

Measurement Data: Based on the goals, specifically define what quantitative data is needed. For example, if project duration (start and end date of the project) is desired then the tasks to be included need to be specified. This definition is also used to specify what is required for effort and cost data. DCG will track the collection of all measurement data to ensure the quantitative basis of further analysis and recommendations. Note that data collection is generally performed by the client and tracked by DCG.

Participants: Client Point of Contact and Consultant

Techniques: N/A

Output: Measurement Data

Session Duration: N/A

Synthesis of Data: One day of effort per 10 applications / projects

Sub-step C.2: Qualitative Data Collection

Qualitative data is collected using DCG's project attribute worksheet. The attributes describe the behavior of the personnel developing the project. DCG facilitates interviews with the personnel that were involved in the projects or applications being measured.

Participants: Three to five project members (typically not the PM) for interview session.

Techniques: Interview session

Output: Attribute Data

Session Duration: 45 – 90 minutes

Synthesis of Data: N/A

Data Collection Step C Decision Point: As data is collected DCG tests the data for statistical significance. If the data collected does not rise to an acceptable level of sufficiency to meet the goals of the benchmark/baseline the need for more data will be required. If the collection of more data is determined to be required an additional sample will be drawn and the data collection process repeated.

Step D: Analysis

DCG analyzes the data collected to develop an understanding of performance. Deep analysis is performed to determine whether there are relationships between elements of the attribute data and the quantitative data. The linkages provide the quantitative basis for the recommendations and the basis to trace anecdotal stories (actual incidents and organizational studies) to the recommendations. Identification of process strengths and weaknesses and associated performance levels will be included in the findings and serve as the basis for the recommendations.

Processes: Statistical and graphical analysis

Participants: Consultant and Client Point of Contact (for review)

Techniques: Statistical and graphical analysis

Output: Analysis (slides or report)

Session Duration: N/A

Synthesis of Data: Three to five days for a small to medium size benchmark with findings presented in slide form.

Step E: Recommendations

Based on the data, analysis and original goals DCG defines a set of recommendations (quantitatively based) that meet the client's needs. DCG leverages the statistical data developed during the analysis to quantify the impact of the recommendations. DCG typically delivers recommendations at the same time as the benchmark results.

Processes: Statistical and graphical analysis

Participants: Consultant and Client Point of Contact (for review), Senior Management Team for presentation

Techniques: Statistical and graphical analysis

Output: Recommendations Analysis (slides or report)

Session Duration: N/A

Synthesis of Data: Three to five days for a typical benchmark with report presented in slide form.

Step F: Deliverable Presentation

DCG consultants will present the detailed findings with supporting explanations. An executive briefing can also be provided. DCG typically presents the material in PowerPoint format however a written report can be added or substituted.

Participants:

Detailed Review - Consultant, Client Point of Contact and all participants

Executive Briefing - Consultant, Client Point of Contact and Senior Management

Techniques: Presentation

Output: PowerPoint Slides

Session Duration:

Detailed Review –One to two hours

Executive Briefing –Thirty minutes to one hour

Step G: Management Escalation

DCG pursues all projects in a transparent manner. When an on-team client representative can't make a decision affecting the delivery of value issue will be escalated to senior stakeholders for resolution.