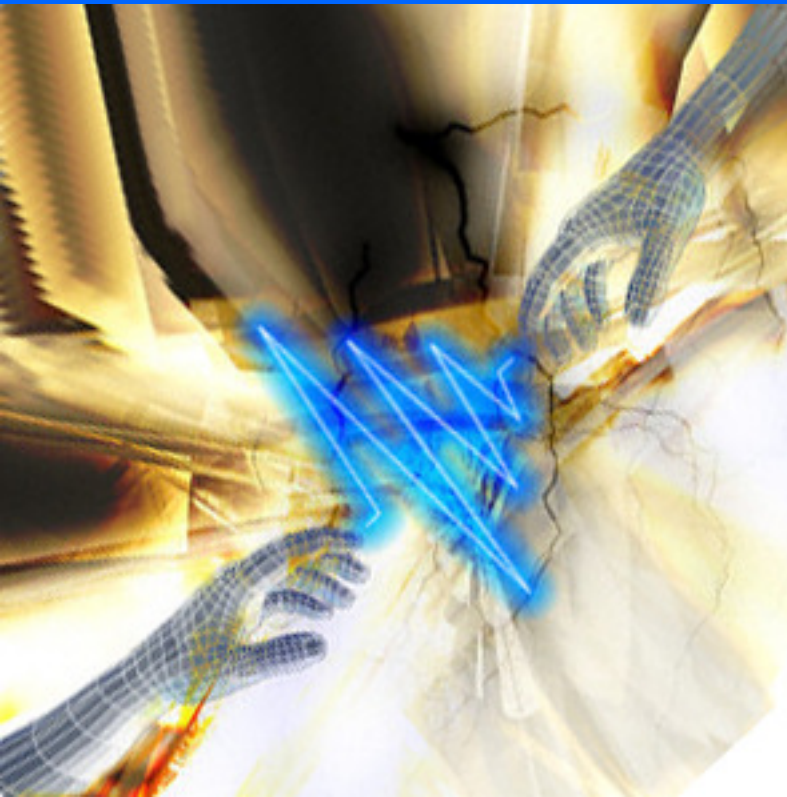


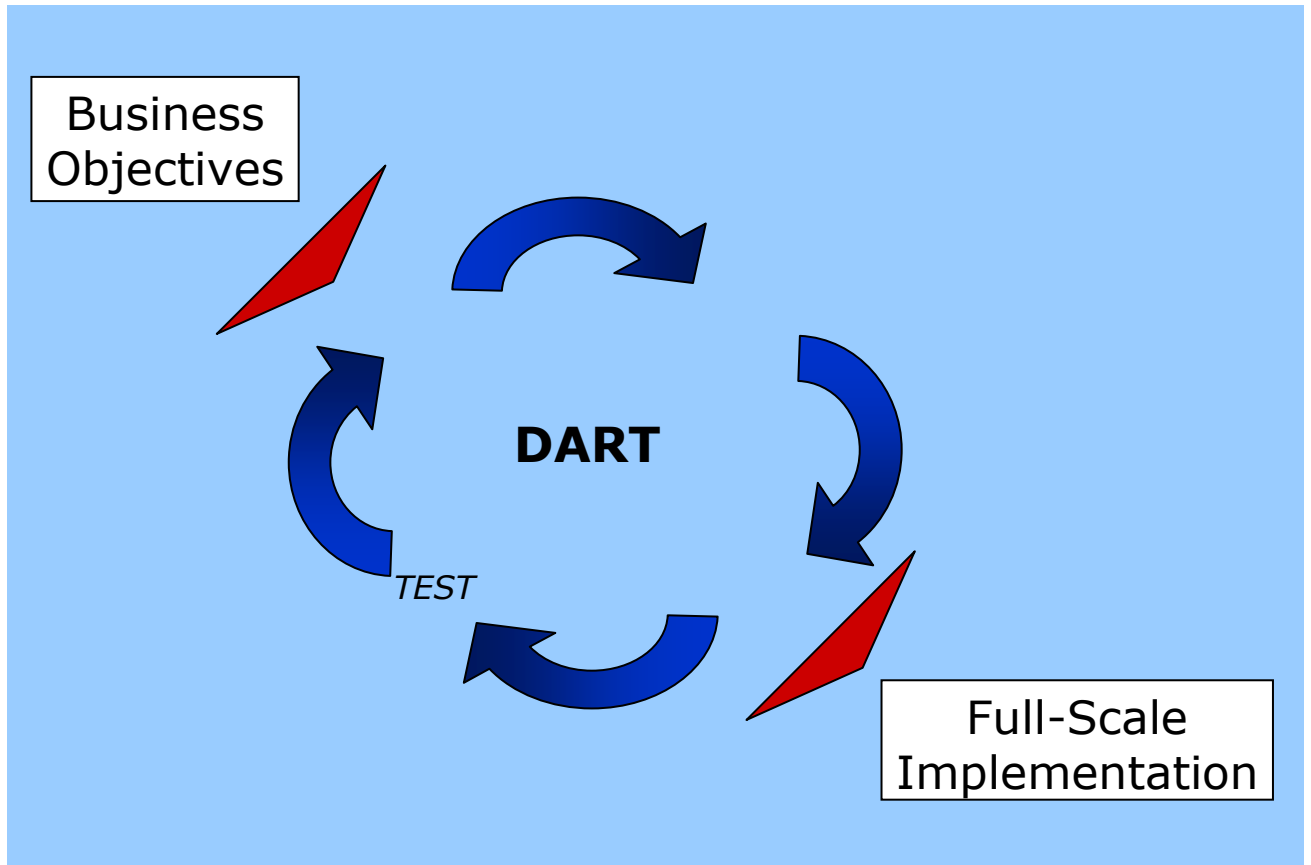


Creating Actionable  
Knowledge Via Analytics



**DART**  
**Methodology**

## Dart Methodology



For continuous improvement in value maximization, we recommend following our tested DART methodology. The business objectives directly influence each stage of the process. The DART methodology involves four primary stages that are iterative in nature.

1. Discover
2. Analyze
3. Reengineer
4. Test

Each iteration of the DART loop results in identifying business strategies that can be implemented with greater confidence to improve profitability. The frequency of the iteration is determined by the dynamic factors in the business and the time required to observe results of the previous implementation.

## **DART - DISCOVER**

Discovery starts with data – "good" data. Good data is one of the primary factors in obtaining good results. Data needs to be "good" in three ways:

- It is representative
- It is clean, and
- It is relevant

Leverage all relevant sources of data in your organization in collecting data. Enhance data through available external sources. Collecting data is only the first step. We need to verify that it is clean and that it is representative of the population we want to analyze. Visualize the data and pick out "outlying" cases to check their accuracy. Most data is not complete and has missing elements -- choose a methodology to deal with them.

The output of this stage results in a dataset that has been cleaned, transformed and formatted. This dataset is now ready to be analyzed specifically to solve for the business objectives.

## **DART – ANALYZE**

After "preparing" the data, analyze the data to detect the correlations and causalities that exist between the input elements and the output measures. It is important to rely on domain insight, and modeling acumen rather than leaving the analysis to business intelligence tools alone.

Choose what technique to use at what point in the analytical process and how to integrate these techniques appropriately. Utilize the most appropriate technology for the problem at hand, including decision trees, neural networks, CHAID, CART, or more traditional statistical techniques like linear regression and logistic regression.

However, good technology itself does not result in good analysis. Good analysis is more dependent on the modeling knowledge and experience of the analyst than the technology. The analysis stage provides the predictions of customer behavior and the segmentation.

## **DART -- REENGINEER**

After the data has been turned into knowledge via the analysis stage, it is time to utilize that knowledge to improve profits. Evaluate current strategies and develop challenging strategies that will improve the economics of the business.

This step reaps the rewards of a thorough data discovery, and an in-depth analysis to rethink and reengineer strategies and processes that are currently in place. Study and evaluate the "business as usual" and develop more effective actions that can replace the current strategies and processes. The strategies and processes are often in the form of specific treatments and tactics targeted to specific customer segments.

The reengineering stage should use a profitability model – a tool that combines the knowledge from the analysis stage and other inputs to assess profitability impact of an action on an individual customer or a customer segment. Profitability measured over the lifetime of a customer is known as Lifetime Customer Value (LCV).

A well-designed test needs to be performed to determine the actual impact of the reengineered strategies and processes.

## **DART - TEST**

**Testing is a simple term that means planned experimentation of challenging strategies and processes. Test a sample of the population to collect additional data to make more informed decisions before full implementation.**

**Through this testing, the appropriate marketing levers, risk actions, or mixes of product attributes can be evaluated. An important step in test stage is selecting true control groups that are random and representative of customer segments being evaluated for action. By selecting true control groups and performing "business as usual" on them, we can measure the effects of the reengineered strategies on specific customer segments. Measuring results through the testing stage allows us to make decisions scientifically, making business uncertainty more manageable. The strategies can then be refined and implemented full-scale on customer groups with greater confidence of success.**

**This step closes an iteration of the DART loop. In the next iteration, as more data is discovered, the loop begins again producing better results resulting in maximizing profitability.**