



# SmartOptimization Overview

## Enterprise Version

**SmartOptimization** automates the decision making process helping companies implement identified savings sooner. The **SmartOptimization** platform analyzes bid results empowering companies to select the best combination of suppliers, products and services that provide the optimal mix of business objectives, risk aversion tactics, quality standards and supply base consolidation.

**SmartOptimization** allows users to layer different constraint types so that they can build 'real world' award scenarios. These custom scenarios help companies minimize risks by analyzing a wide range of risks associated choosing suppliers. Some risk scenarios could be low-cost country suppliers, new vs. incumbent suppliers and high vs. low product quality issues. The use of award scenarios can also help companies consolidate their supply base by evaluating costs associated with a small or large supply base. This allows them to optimize the correct number of suppliers that should provide goods and services for a particular commodity.

Though **SmartOptimization** is a stand alone platform, companies can also access it through embedded integration with **Iasta's** sourcing platform, **SmartSource SRM**. Also important, to help speed the decision making process, **SmartOptimization** accepts data from any external application, including spreadsheets or non-**Iasta** applications. **Iasta** can also provide companies with Optimization as a service.



Cycle time reduction – many companies reduce analysis time by 75%, allowing them to implement savings faster.

### SmartSource SRM

#### Usability issues

Intuitive interface	•	•
Integration with sourcing event	•	•
Side-by-side comparison reporting	•	•
Graphically displayed award scenarios	•	•
Embedded pivot tables	•	•
External data import	•	•
Unlimited use of constraints		•

#### Decision constraint types

Limit constraints	•	•
Allocation constraints	•	•
Exclusion constraints		•
Qualitative constraints		•
Discount constraints		•

#### Advanced optimization options

Optimization as a service	•	•
Freight bracket optimization		•

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## Building Award Scenarios with Flexible Constraint Characteristics

A key factor driving better sourcing decisions is accurately representing real-world situations before making award decisions. **SmartOptimization** allows users to build award scenarios that reflect the real-world situations that organizations face. Users can choose from a menu of many, unique constraint types to build, adjust and compare award scenarios within seconds. The constraint types can be used individually or combined with each other. All this optimization power is embedded within the **SmartOptimization** platform; there is no need to build separate spreadsheets.

## Available constraint and factor types

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### Allocation constraints and factors

Allocation constraints allow buyers to decide how much business to award one or more suppliers. For example, a buyer can build an award scenario where 20% of the business goes to an incumbent supplier, 10% goes to a diversity supplier and the remaining 70% of the business goes to the qualified lowest bidder. By adjusting the awarded percentages, the buyer can create new scenarios and compare them to each other. Allocation constraints can be combined with any other available constraint.

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### Limit constraints and factors

Limit constraints let buyers set award maximums on items and groups of items. For example, a buyer may want to minimize supply risk and decide to impose a maximum of 45% that any one supplier can be awarded. A buyer can instantly create a new scenario and compare it with other scenarios. Limit constraints can be combined with any other available constraint.

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### Exclusion constraints and factors

For any award scenario, exclusion constraints enable buyers to prevent a supplier, a supplier location or group of suppliers from providing goods and services. For example, a buyer may exclude a specific supplier location due to poor quality ratings. Or the buyer can force the goods and services to be sourced from specific locations. Exclusion constraints can be combined with any other available constraint.

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### Qualitative constraints and factors

Qualitative constraints are applied to an item or set of items that are "graded" based on various attributes. Buyers first define the qualitative factors for each set of suppliers or items, and then mathematically rank the attributes (based on a consistent scale). Some examples of qualitative attributes include durability, on-time availability, reliability, customer perceived quality and many more. Qualitative constraints can be combined with any other available constraint.

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### Discount constraints and factors

Many suppliers offer discounts if the buying company meets certain criteria. Examples of discounts include when a buyer orders a certain volume of a specified item, or exceeds a pre-specified dollar value in their purchase. The discount constraint allows buyers to build award scenarios that take into account conditional discounts offered by suppliers. Discount constraints can be combined with any other available constraint.

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### Freight bracket optimization and factors

Freight bracket optimization automatically optimizes the award decision based on estimated and optimized freight brackets. The freight brackets are established by the bidders and are based on the amount shipped by lane.

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### Optimization support and services and factors

**Iasta's** goal is to enable companies to be completely self-sufficient regarding post-bid and optimization analysis. We deliver powerful technology to make any sourcing analyst look like a PhD candidate. Additionally, our experienced support team is available for coaching and mentoring support for award scenario building and analysis. **Iasta** can also deliver Optimization as a service for those who need more support.

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