# Stop complaining that Corporate Data Governance isn't solving your planning data issues!

## …And What to Do About It.

Despite all efforts to maintain accurate data, does your company continue to have data quality issues that limit the usability of your supply chain planning systems?

If you are like most companies, you probably have both Master Data Maintenance and Corporate Data Governance organizations. These organizations are tasked to ensure that the key corporate data is accurate and secure.

In addition to centrally managed data relevant to the entire company, you likely have other operational departments tasked to maintain their own core data. Each of these organizations have their own processes and priorities. Typical corporate data includes plant/location masters, product, customer, and vendor masters, and corporate bills of materials (BOMs). Data objects maintained by operational departments may include manufacturing yields, subcontractors, transportation lanes, routing priorities, vendors, trucking and transportation information, manufacturing capacities, and alternate items or substitution rules.

*Do Master Data Maintenance and Corporate Data Governance organizations understand what is required to produce valid supply chain planning results?*

Unlike many other business processes, supply chain planning models require an integrated set of data spanning the end-to-end supply chain to work properly – the BOMs and routings and capacities (and many more data elements) can all meet local data quality rules, but if they can't be strung together to span the point of sales back through distribution, manufacturing, and/or purchasing activities, the model breaks.

Additionally, key parameter values or attributes drive planning behavior and can impact how demand is allocated to products, how products consume capacity, etc. Frequently this type of data is not considered a key corporate data asset, yet if this data isn't accurate, your planning system won't produce accurate information.
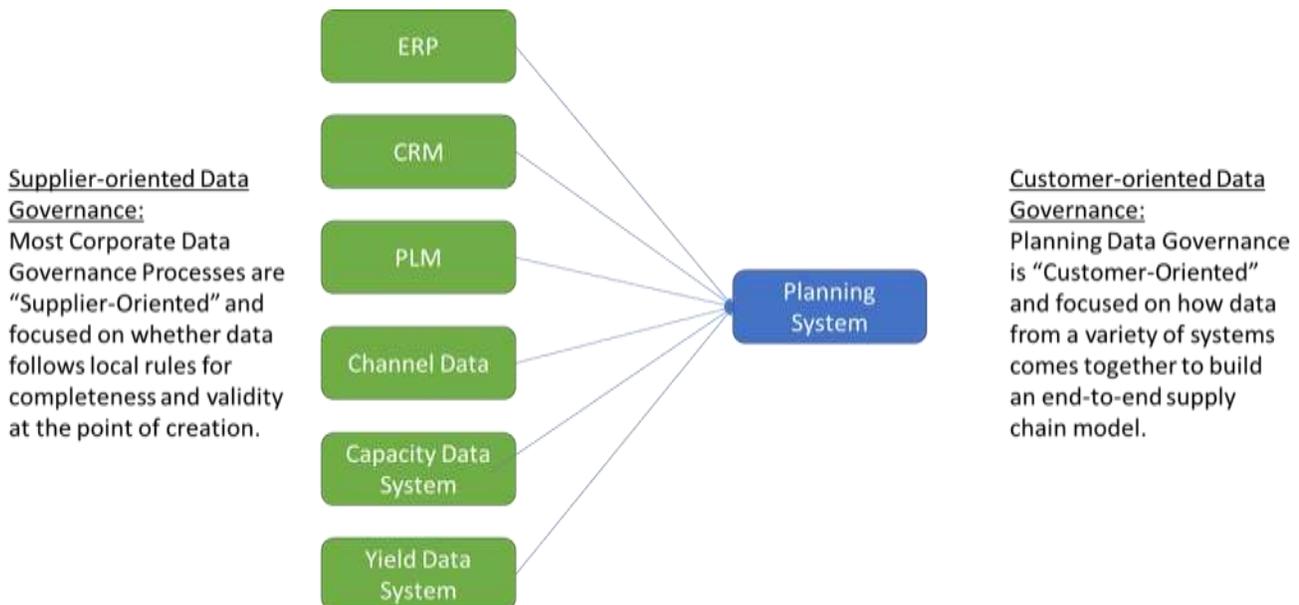
*Bad data in your supply chain systems lead to stock outs, overstocks, excessive safety stock, missed sales, and inefficiencies at every step in your supply chain.*

Since you are reading this, it's safe to assume that you are seeing one or all of the symptoms of bad data in your supply chain systems: shorted demand, elevated levels of inventory or stranded inventory, difficulty meeting customer expectations for service, challenges managing manufacturing operations cost effectively, and alarming levels of chaos and firefighting to simply move product through your supply chain.

## Control Your Own Destiny: Implement Data Governance Processes that Work for Supply Chain Planning

The supply chain planning system is your system, but most of the data isn't. With few exceptions, the data your system ingests originates from systems outside of your control. A typical planning system receives 10-20 daily data extracts from 3-10 disparate systems. Each with its own master data from an organization with their own data quality policies and procedures. The best way you can ensure that the data meets your requirements is to put your own *Supply Chain Planning Data Governance* process in place to identify data exceptions, and to work with the owners of that data to correct it at the point of origin so it doesn't continue to re-occur.

Unlike most Master Data Management and Corporate Data Management processes - which focus on data quality from a *supplier* perspective - Supply Chain Planning Data Governance processes focus on data quality from a *customer perspective* and have different priorities and objectives.

Supplier-oriented Data Governance:
Most Corporate Data Governance Processes are "Supplier-Oriented" and focused on whether data follows local rules for completeness and validity at the point of creation.

ERP

CRM

PLM

Channel Data

Capacity Data System

Yield Data System

Planning System

Customer-oriented Data Governance:
Planning Data Governance is "Customer-Oriented" and focused on how data from a variety of systems comes together to build an end-to-end supply chain model.

# ARM Yourself for Success! Build an Effective Supply Chain Governance Process

Spinnaker uses the ARM (Assess, Remediate, Manage) methodology to improve supply chain planning data quality. This approach helps organizations develop a clear understanding of the quality of their data from a planning perspective and implement data quality improvement processes to reduce errors and increase planning performance.

## Assessment – Understand Your Data

The first step is to identify and understand all data that is used. What is the data? Where does it originate? Who creates it? What are the valid values? Below we discuss each of the Assessment steps in more detail:

1. Identify Planning Model Data Needs
   - Identify data source, owner, integration cadence
2. Profile each field in each file
   - Define use of each field
   - Document valid values
   - Document relationships to other fields (e.g. Unit of Measure is linked to Unit Qty) in same file
   - Document relationships to fields in other tables (e.g. Item# in Sales Order must exist in Item Master)
   - What is actually in the fields, are there records which aren't within expected parameters?
3. Identify lineage of fields that can have different values (e.g. Unit of Measure might have different values for the same item number depending on whether you are looking at Item Master, Inventory, Sales History, Purchase Order, what is the source of this field in your extract?)

This sounds like a lot of work, and it is, but you are creating a solid foundation for the next step, Remediate.

## Remediate – Identify and Correct Data Issues

This next step – Remediate – can be done after the Assessment, or in parallel. Remediation involves creating a set of data validation audits and based on the findings launch efforts to fix the issues and put in place root cause prevention measures. There are several data management tools which can be used for this task, or you can build your own. These audit and exception reports should be run frequently and routed to the data owner for correction.

Examples of types of audits you will likely create:
   a) Valid ranges or lists of values for a field
   b) Foreign key integrity validations for attribute or values that must exist in master data
   c) Supply path completeness to check that manufacturing, distribution, and procurement operations exist across the end-to-end supply chain
   d) Supply node parameter accuracy (cycle times, lead times, mfg. steps, etc.)

The purpose of the validation audits is to ensure that all data being used by the Supply Chain Systems is accurate and usable, and that all items can be purchased, manufactured and distributed as intended.

To prioritize audits, the best practice is to create a supply path infrastructure that connects the errors identified in audits to the demand that drives your supply chain. The concept is to link your master and transactional data together to a defined supply path. Once this is in place you can identify the impact of each data exception on your system's ability to satisfy product demand.

For example, if you are missing key purchasing data associated with a component of a manufactured part, your ability to sell the manufactured part could be impacted. In practice, your buyer may be able to place the order manually, which effectively hides the data exception from detection, but the planning system may not see supply and plan correctly. The point is that this data exception is driving a manual process ("hidden factory") which can be removed through identification and correction of the data exception. Linking the exceptions to demand allows you to prioritize correction to exceptions which are driving manual overrides/processes.

Once the audits have been put into place, and linked to a central supply path structure, you will need to establish the processes to ensure the data exceptions are consistently reviewed and corrected.

## Manage – Incorporate Data Quality Processes

Many organizations make the mistake of considering data cleanup a "Project" which ends when the problem is fixed. This typically occurs when a new system is installed, the existing system is upgraded, or when a customer issue attracts senior management attention.

While a project can improve data quality for a time, if the underlying processes aren't corrected, and exceptions go uncorrected and regular data validation audits aren't consistently maintained, you will eventually be back where you started. Best practice is to incorporate supply chain system specific data
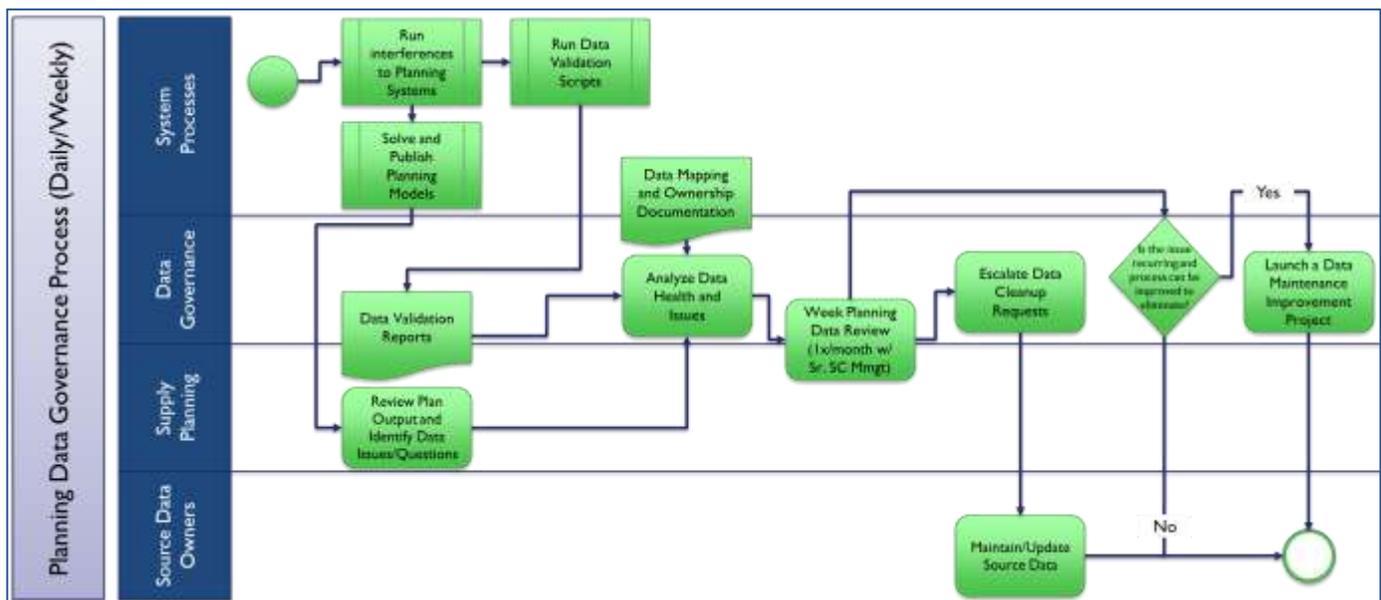
governance workflow into the planning business process as shown in the chart below. This isn't a complicated process but requires resources and dedication.

Following this process, the data health of the entirety of all data is evaluated as part of the planning cycle. Issues are identified, prioritized, corrected, and process improvement efforts are initiated to eliminate reoccurrence.

## How to start?

Spinnaker has an efficient, mature methodology for completing each step as described above. Combined with our extensive supply chain expertise and our 5 Lenses framework, we will help you start by profiling your data, then we will help to build effective audits specific to your organization and put an organizational structure in place to ensure the process is maintained moving forward. Contact us today to discuss your challenges and learn how we can help you drive meaningful, sustainable and positive change in your organization.

We hope you found this information to be helpful. To access more Spinnaker thought leadership click here or to learn more about our services click here.

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### About Spinnaker:

Spinnaker is a supply chain services company that helps clients grow, manage risk, reduce costs, and improve customer service by developing world-class supply chain capabilities. Our services help clients develop the right supply chain strategy for their business challenges and implement the process and technology solutions to improve Demand/Supply Planning, Procurement and Sourcing, Logistics and Warehousing, and Reverse Logistics business performance. Spinnaker offers a unique service delivery model that combines the strength of deeply experienced management and technology consultants with a seasoned team of business process outsourcing (BPO) and 3rd-party logistics (3PL) professionals. Founded in 2002, Spinnaker has offices in Boston, Columbus, Denver, Houston, Memphis, Pittsburgh, London, and Singapore.

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