

GLOBAL SUPPLY CHAIN STRATEGY 2016



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Executive Summary

Under Marquard & Bahls located in Hamburg, Germany, Newsco International Energy Services provides directional drilling services for exploration companies. Headquartered in Houston, Texas, Newsco – which also includes Telemetry Technologies International Inc. does business in Canada, Peru, Russia and India. Telemetry provides value to Newsco as an internal supplier delivering engineering service, Measuring while Drilling (MWD) manufacturing & repair and limited supply chain service to its global operations.

Newsco/Telemetry have experience significant financial setbacks in the last 12 months as it relates directly to a missing Global Supply Strategy with a focus on a Centralized Supply Chain function to oversee the needs of its Global Enterprise. Crippling manifestations of poor supply chain knowledge surfaced on 8 separate occasions in 2014-15. 900K CAN of Inventory (30% of the total) could not be accounted for in its Canadian operation during the 2014 year end count. The Inventory was strewn throughout the building and grossly overstated as previous counts included used items, used hand tools, equipment and fixed assets. In addition, over 500K CAN of excess inventory resides within its Canadian Operations and brought on by an unnecessary one year blank PO. Inventory serviceably was a looming 56% as its Canadian Operations struggled to meet the Customer Demand, just to mention a few.

Newsco/Telemetry is currently recognized by the CFO as cash poor and inventory heavy but in spite of the optics the request for spend continues to pour in from other global operations. The request for spend points clearly at an improper inventory mixture and lack of visibility to true necessary spend. The Conroe, TX location is sitting on, in some cases, 6 months of Inventory that is not visible to the CFO because an Inventory Management System is nonexistent. If a robust Inventory Management System were in place he could see the Casper WY Location placed a new Internal PO order driving external spend of 10K when the Conroe location was sitting on 4 months of inventory of the exact SKU the Casper Location was requesting. This is not a single event but systemic in nature as a comprehensive Supply Chain Strategy does not exist to oversee the behaviors and activities of each BU who work in isolation and with complete autonomy.

Immediate action can be taken to address the current excess spend but a Supply Chain Strategy with a focus on a Centralized Supply Chain function is needed to sustainably meet customer demand, reduce total cost with acquisition, meet government regulations, reduce financial and operation risk while gaining a competitive edge in the market.

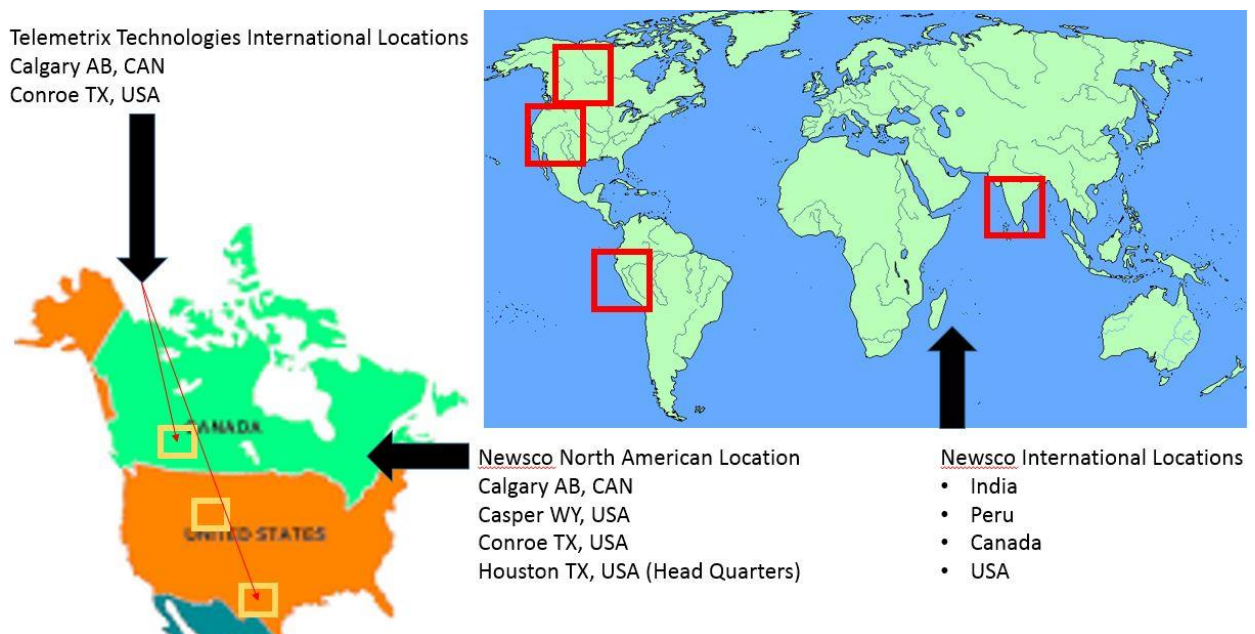
Organization Background

Marquard & Bahls is a Hamburg-based family-owned company that operates in the fields of energy supply, trading and logistics. Their core lines of business include trading, tank storage logistics, aviation fuelling, dry bulk handling and upstream services. Furthermore, they are active in renewable energies, carbon trading, fuel analysis and gas supply.

Through their subsidiaries, they have a presence in 40 countries in Europe, America, Asia and Africa and employ more than 8,500 people.

Embedded within M&B's Upstream Services business sector, Newsco International Energy Services is a global provider of directional drilling services for exploration companies. Headquartered in Houston, Texas, Newsco – which also includes Telemetrix Technologies International Inc. does business in Canada, Peru, and India. (A similar relationship of business lines can be leveraged as an example, Coca Cola & Sprite, Newsco & Telemetrix.)

Figure A: Newsco/Telemetrix International Locations



Strategically, Telemetrix Technologies International operates under its own P&L generating external revenue by the sale of MWD goods and services to external customers while providing value to Newsco as an internal supplier delivering engineering service, Measuring while Drilling (MWD) manufacturing & repair and limited supply chain service to its global operations.

Telemetrix Technologies International share Newsco's corporate mission and values.

Mission:

To provide our clients with industry leading technical expertise, equipment, and service.

Values

- Respect - We have the utmost respect for our employees, business partners and the communities we operate in.
- Integrity - We emphasize the importance of integrity in all we do. We are committed to maintaining a relationship built upon respect, honesty, and ethical behaviour.
- Reliability - We provide unsurpassed customer service creating a consistent commitment to excellence.
- Health & Safety - We take precautionary measures to avoid and control factors that would risk the balance of the environment and the health of all parties while minimizing our environmental footprint.

Under Telemetrix Technologies International the creation of a Global Supply Chain Strategy will delivery significant value to Newsco International Energy Services business strategy.

Newsco's Business strategy involves leveraging the core competencies of the organization to achieve their high-level goals and objectives. It also includes the analytic and decision-making process surrounding what products or services to offer, when to offer, and where to offer as a competitive plan. While Newsco's business strategy constitutes the overall direction, Telemetrix's Supply Chain Strategy will contribute to the actual Global Operations and the extended supply chain meeting other specific supply chain objectives.

2.0 Defining the Issue

Newsco International Energy Services currently operates without a Global Supply Chain Strategy and therefore does not benefit from the necessary subsequent supply chain strategies such as the *Assurance of Supply, Cost reduction, Supply Chain Support, Risk management, Environmental change and Competitive Edge*. Not having such strategies in place presents many challenges for an enterprise to be successful or even the ability to compete within the Global Market Place.

For Newsco International Energy Services to be successful in meeting their Mission and core Values they must look at three levels of their organization when executing their business plan: Corporate, where the business strategy is developed and communicated to key stakeholders. The Business Units, where they mold and execute the business plan. The Functional Departments, where each area contributes, in a measurable way, to the objectives meeting the overall goal.

In 2014 -2015 Newsco International Energy Services & Telemetrix Technologies International became profoundly aware of the impact of not having a Global Supply Chain Strategy to guide business behaviours in support of their mission. The lack of a supply chain strategy, goals and objectives manifested into a number of incapacitating and potential fatal challenges in two primary business units within Newsco & Telemetrix units. North American Operations, Calgary, AB, and Conroe, TX.

2.1 The Manifestation

The manifestation of not having a Global Supply Chain Strategy Chain Strategy can be found in several instances ultimately leading to the loss of revenue and the lack of product flow meeting the customer demand.

Table 1:

Manifestation Example: 1	Manifestation Example: 2
2014 - Calgary, AB realized a loss of nearly 900k or 30% of their inventory due to a lack of inventory control as well as poor manufacturing and engineering practices.	2014 - Blanket Purchase Orders and Non-existent Material Planning drove an excess spend of 500K on just two Stock Keeping Units.
Manifestation Example: 3	Manifestation Example: 4
2015 - Calgary, AB report nearly 700K or 18% of its total inventory as slow moving or OBS.	2015 - Conroe, TX reported 400K or 25% of its total inventory as not required to operate or OBS.
Manifestation Example: 5	
2015 – Calgary reported multiple occurrences of vendor agreement breach and supplier “stop ship” status due to aging accounts payable brought on by slow moving inventory and a lack of a comprehensive cash flow model.	
Manifestation Example: 6	
2015 - No Demand Forecasting & Inventory Analysis reaped dismal results of 56% inventory serviceability to its internal & external customer.	

2.2 Supply Chain Strategies

While the business strategy constitutes the overall direction that an organization wishes to go, the supply chain strategy constitutes the actual operations of that organization and the extended supply chain.

2.2.1 Supply Chain Strategies – Assurance of Supply Chain, Cost –Reduction, Supply Chain Support, Environmental – Change, Competitive Edge and Risk Management

2.2.2 Assurance of Supply Chain Strategy - Designed to ensure future supply needs are met with emphasis on Quality and Quantity. Assurance of Supply Strategies must consider changes in both demand and supply. (The absence of this strategy enabled manifestation Ex. 1, 2, 3, 4 and 5)

2.2.3 Cost Reduction Strategies – Designed to reduce the total cost of acquisition and use – life cycle cost. With the changes in the environment and technology, alternatives may be available to reduce the organizational costs through changes in material, sources and methods.

2.2.4 Supply Chain Support Strategies – Designed to maximize the likelihood that the considerable knowledge and capabilities of supply chain members are available to the buying organization. Communication Systems are needed between buyers and sellers to facilitate the timely notion of changes and to ensure that supply inventories and production goals are consistent with the needs. Supply Chain members also need better relations for the communication needed to ensure higher quality and better design.

2.2.5 Environmental – Change Strategies – Designed to anticipate and recognize shifts in the total environment (economic Organizational, People, Legal, Governmental Regulations and controls and systems availability) so that it can turn them to the long term advantage of the buying organization.

2.2.6 Competitive-Edge Strategies- Designed to exploit market opportunities and organizational strengths to give the buying organization a significant competitive edge. A focus on strong performance in achieving supply chain objectives.

2.2.7 Risk Management Strategies – Designed to mitigate Operation Risk- flow of goods and services. Financial Risk- The risk that the price of goods and services acquired will change significantly. Reputational Risk- specific to policies and procedures with zero tolerance to bribery, kickbacks, improper quality, improper disposal and environmental practices and dealing with unethical suppliers.

3.0 Analyzing the Case Data

The primary focus of this study will draw primarily from the “Assurance of Supply Strategy” and the advantages and disadvantages of a centralized approach including the functional role Demand/Forecast Planning had on Newsco/Telemetrix Inventory woes.

While experienced O&G professionals are eager to solve problems quickly and at times attempt to do so based on nothing more than gut feel, unfortunately, most problems are very complex in nature and require a practical problem solving approach to address these challenges. In most cases one person working solely in isolation cannot solve a problem that is systemic. It will take the input of many to understand the depth of a problem and effectively implement countermeasures.

Figure B attempts to objectively capture a number of contributing causes within the aspect of People, Culture, Money, Method and Information Technology to clearly communicate what root causes maybe contributing to Newsco’s/Telemetrix’s issue/problem.

Figure: B (Cause & Effect Diagram)

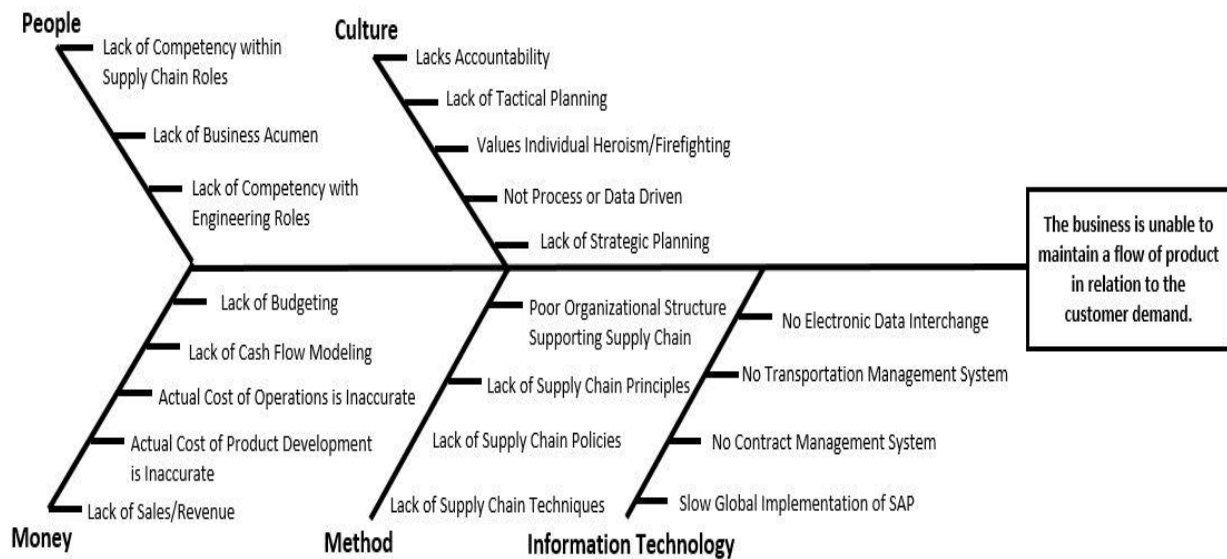


Table 2 attempts to qualitative and quantitative assess the organizations ability to impose countermeasures to the problem and identify both its current constraints and opportunities as it correlates to the Cause and Effect Diagram.

Table 2: Constraints & Opportunities

Cause	QUALITATIVE IMPACT		QUANTITATIVE IMPACT			
	Constraints	Opportunities	How Many "Causes" Does the "Opportunity" Impact?	Low Effort 1-5 (5 is the least amount of effort)	High Impact 1-5 (5 is the highest impact)	Business Focus Rating Max. Score 31
Lack of Strategic Planning	High Level Business Goals and Objectives for Newsco and Telemetrix do not exist or have not been communicated to the entire organization.	Hoshin Planning is a proven method to develop strategic corporate goals and measurable objectives which ultimately cascade to lowest levels of the organization where success can be measured daily.	21	2	5	28
		Newsco/Telemetrix has in house talent which can facilitate a Hoshin Planning Session				
		Hoshin Planning is a Low Cost - High Impact Strategic Plan.				
Poor Organizational Structure Supporting Supply Chain	A deep understanding of Global Supply Chain does exist or is not supported at the executive/Senior Management branch of the organizations	Changing the Organization to include a Centralized Supply Structure. Ex. Director of Supply Chain, Commodity Managers, Manager of Admin & Process and Material Manager.	13	1	5	19
Lack of Competencies within Supply Chain Roles	There is a significant lack of competency within the ranks of supply chain. Employees have not been formally trained in Supply Chain Principles or Techniques.	The competency gap can be addressed through formal training and recruitment.	9	3	4	16
Slow Global Implementation of SAP	The slow global implementation of SAP is a significant constraint for Newsco/Telemetrix in their ability analyze and manage their supply chain	Other low cost Warehouse Management Systems are available and may be considered as a stop gap solution Ex: Fishbowl	5	3	4	12

3.1 Lack of Strategic Planning

Newsco/Telemetrix do not engage in strategic planning in the traditional sense. Strategies are crafted in isolation by the Executive Branch and Senior Management but do not cascade actionable objectives that can be aligned and measured by the rest of the organization. A Hoshin Planning Session facilitated by Lean Practitioner may be considered in crafting the 2016 Strategic Business Plan.

3.2 Poor Organizational SCM Structure & Employee SCM Competencies

Figure C & D Attempt to illustrate Newsco/Telemetrix organizational chart & competency matrix clearly identifying a weakness in both headcount and Supply Chain competencies. A budget including the expansion of Calgary's Supply Chain Department and formal training opportunities for current SCM employees may be considered during the next business cycle supporting a potential grow in 2016.

Figure C:

**Telemetrix Calgary
Supply Chain
Organizations Structure**

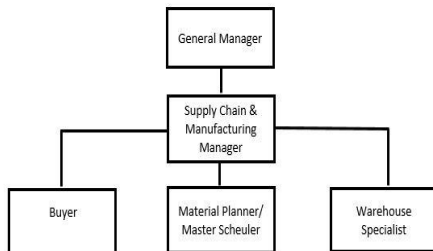


Figure D:

**Telemetrix Calgary Supply Chain
Competency**

Newsco/Telemetrix Supply Chain Competency Matrix

	Procurement Analysis	Strategic Procurement Analysis	Inventory Management	Planning & Scheduling	Information Technology
General Manager	0	0	1	1	2
SCM & Manufacturing Manager	3	3	3	3	3
Buyer	2	1	1	1	2
Material Planner	1	0	2	2	3
Warehouse Specialist	0	0	2	1	2
Proficiency Level					
0- Not Aware	2- Limited Experience				
1- Awareness	3- Practical Application				

3.3 SAP Business One Implementation

Newsco/Telemetrix in Canada partnered with VistaVu Solutions in 2013 to implement SAP Business One in Calgary with the plan to implement the ERP System in all BU’s by 2015. The total length of the Canadian project was originally scoped for 4 months. Nearly two years later the “Go Live” date was approved knowing that the system was flawed with poor GL determinations and Master Data. The Canadian operations is currently in a Data Remediation Sub Project which is slated to close in August of 2015. This has pushed the implementation in the US and other BU’s by 12 months.

3.4 Lack of SCM Competency in Conroe, TX

The majority of excess or OBS inventory can be attributed to the current material replenishment planning or lack thereof. The current material replenishment planning can be defined as a “go and look” method. Someone in operations will go and look to see how many particular widgets are on a shelf and subsequently will or will not place and order based on his/her feeling.

3.5 Inventory Analysis of Calgary’s & Conroe’s Slow Moving & Excess Inventory

Figure D & E is a graphical representation illustrating the manifestations found both the Calgary and Conroe in a quantifiable matter. It is important to note that uncontrolled Engineering Changes and the lack of a Material Disposition Planning is another significant driver in the creation of excess and OBS Inventory.

Figure E: Calgary, AB- Slow Moving Inventory

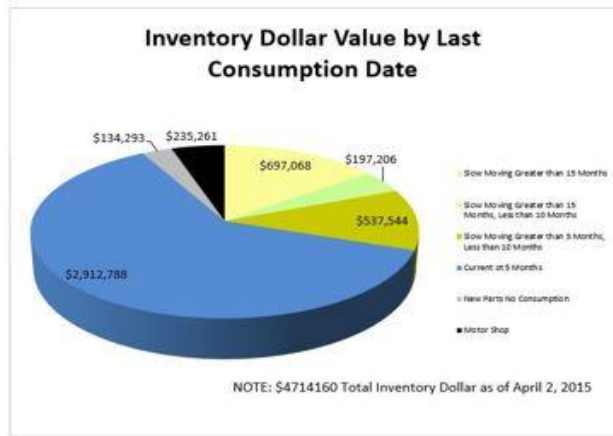


Figure F: Conroe, TX- Excess Inventory



3.6 Current Material Replenishment Practices in Conroe, TX

With the significant decline in the price of Oil in 2014-15, exploration opportunities have dropped off and the demand for new Measuring While Drilling Tools has responded in kind.

Newsco CFO and the organization itself fell short of cash and without a cash-flow model required to pay suppliers for goods procured 12 months ago on a blanket when times were good and product was flowing. One immediate reaction was to liquidate all excess material (while the current material replenish method carried on). Telemetrix Conroe reported 50 SKU's with excessive levels of inventory. Take note of the column highlighted below called "Ideal Qty". The ideal quantify is subjective without any supporting analysis such as historical consumption, current customer demand or sales forecasting.

Figure G: Conroe TX, Subjectivity to determine "Idea Qty".

Item No.	Description	Physical Qty	Ideal Qty	Qty to Return or Sell	Cost	Value of Physical Qty	Value of Ideal Qty	Value to Return or Sell
0000-1344	STINGER ASSEMBLY UN-COATED	14	5	9	\$1,156.00	\$16,184.00	\$5,780.00	\$10,404.00
CNTR0001	INTERCONNECT SLEEVE (PROBE WEAR SLEEVE)	66	10	56	\$244.05	\$16,107.30	\$2,440.50	\$13,666.80
						Current Value	Ideal Value	Return/Sell
						\$567,932.07	\$164,709.97	\$403,222.10

3.7 Casper, WY approved to incur external spend of 10K.

Casper, WY placed a new Internal PO order driving external spend of 10K when the Conroe location was sitting on 4 months of inventory of the SKU Casper was requesting.

Figure H: Conroe, TX – Detailed Excesses Inventory Per SKU.

Quantity	Part Number	Conroe On Order	Average Mo. Consumption	Months On Hand
1	RCPT0025	10	2	4
3	RCPT0029B	20	3	4
3	RCPT0030	21	4	4
1	RCPT0031	3	3	4
2	RCPT0033B	20	4	5
1	RCPT0036	0	5	5
1	REPP0001	2	0	6
4	RTYC0002B	21	4	3
5	RTYC0004B	0	7	4
5	RTYC0005	15	5	2
2	RTYC0007B	0	5	5
4	RTYC0009	15	5	3
2	RTYC0010B	0	8	5
5	RTYC0014A	18	8	3
4	RTYC0020C	20	23	2

Open Conroe PO's quantities as of June 24/15.

Months of Inventory On Hand based on the previous 6 months. New Sales are not predicted.

Figure I: Casper Drives External Spend

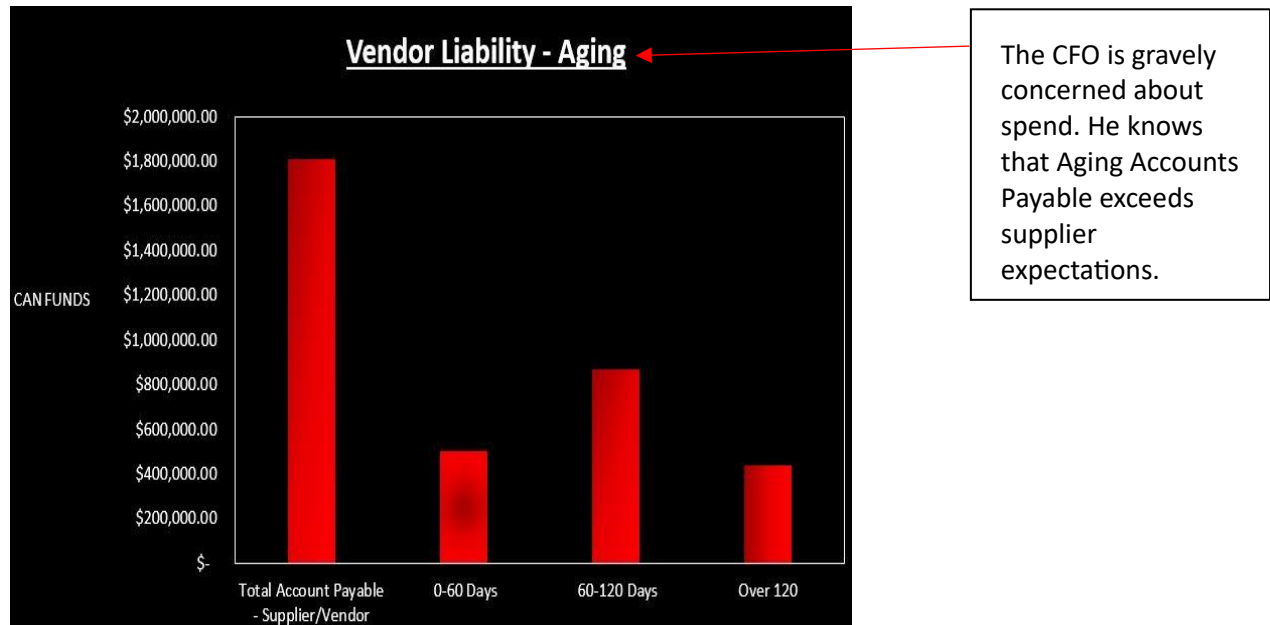
Casper - Internal PO issued for procurement on June 26/15

2	RCPT0029B PIGTAIL, SCINTILLATION TOP, NEWSKO MALE ROTARY, 9.75", FOR CBG & TITAN	911.61	1,823.22
8	RCPT0033B PIGTAIL ASSEMBLY, BATTERY, NEWSKO MALE ROTARY, 9.75"	913.24	7,305.92
2	RCPT0036 PIGTAIL ASSEMBLY, DCM, NEWSKO MALE ROTARY, 9.75"	866.64	1,733.28

3.8 Poor Supply Relation due to Newsco Cash Flow Mismanagement

Supplier relations is extremely poor due to Newsco/Telemetrix aging accounts payable. Due to the lack of centralized Demand/Forecast Planning and Inventory Management unnecessary spend is still taking place despite the best efforts of the CFO to control spend through the PO approval process.

Figure J- Newsco/Telemetrix Aging Accounts Payable Exceed Supplier Terms



3.9 Calgary Stock-Out Performance

The same behavior and extreme subjectivity can be linked to driving the Stock out KPI on the scorecard captured below. 36% percent of the time Newsco/Telemetrix is losing a sale because the inventory is not the right mix or being maintained at the right levels.

Figure K – Calgary Supply Chain Scorecard

SUPPLY CHAIN & MANUFACTURING SCORECARD												
Metric	Measureable	Units	Target	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Trend
Delivery	Sales Order - Stock Out	Percentage of Order Fulfilment	98.5%	56%								*
	Production - Order Stock Out	Percentage of Pick Fulfilment	98.5%	71%								*

4.0 Assurance of Supply Strategy

Given the geographical location of Newsco/Telemetrix, the lack of qualified supply chain personnel, the lack of visibility to BU spend and inventory quantities one may consider analyzing the advantages/disadvantages of Centralized Supply Chain function as it pertains to Strategic Sourcing, Category Management, Compliance, demand Planning, Warehousing & Inventory Analysis and Transportation & Logistics.

4.1 Definitions:

4.2 Strategic Sourcing -is defined as the process of evaluating, selecting and aligning with suppliers or consortiums of suppliers to achieve operational improvements in support of an organization’s strategic objectives.

Table 3: Strategic Sourcing Platform

Strategic Sourcing Platform	
Operational Improvements	Strategic Objectives
<ul style="list-style-type: none"> • Quality • Cost • Service Levels • Cycle Time • Inventory Turns • Logistics (In/Outbound) • Warranty / Returns • Environmental / Disposal • Transaction Reduction • Asset Utilization 	<ul style="list-style-type: none"> • Profitability • Financial Stability • Business Growth • Brand Image • Competitive Positioning • Outsourcing • New Products • New Services

4.3 Category Management – is a “purchasing” concept in which the range of products purchased by a business organization or sold by a retailer is broken down into discrete groups of similar or related products. The term “Purchasing” refers to the process of ordering and receiving goods and service. Such as request, approval, creation of a purchase order record and the receipting of goods.

4.4 Supply Chain Compliance - a state of being in accordance with established guidelines, specifications, or legislation or the process. In the supply chain, compliance management only has meaning with respect to a given function.

- Contract Compliance -In supply chain, the goal of contract compliance is to ensure that your purchasing personnel are buying on contract, honoring your commitments, and realizing the negotiated pricing.
- Regulatory Compliance -In the supply chain context, regulatory compliance can refer to the process of ensuring that you are in compliance with financial reporting regulations, product restrictions, trade requirements, and environmental compliance.
- Financial Compliance -The goal of financial compliance is to ensure that Generally Accepted Accounting Procedures, (GAAP) are followed, tax opportunities leveraged and, in the US, that the Sarbanes-Oxley Act is adhered to.

4.5 Demand Planning - is a multi-step operational supply chain management (SCM) process used to create reliable forecast. Effective demand planning can guide users to improve the accuracy of revenue forecasts, align inventory levels and enhance profitability

Table 4: Demand Planning Elements & Benefits

Demand Planning - Elements (Not Limited To)	Demand Planning - Key Benefits (Not Limited to)
<ul style="list-style-type: none"> • Sales & Operations Planning • Production Capacity Planning • Material Replenishment Planning • Analysis of Historical Sales Data • Analysis customer forecasts 	<ul style="list-style-type: none"> • Increased revenue - There are less Stock Outs. • Reduces inventory Levels - The Right Mix of Inventory will be On Hand. • Shortening cycle times from order to cash - Having the right part at the right time in the right quantity. • Improved Production Planning and Scheduling due to greater demand accuracy. • Improved customer satisfaction while reducing supplier frustration.

4.6 Warehouse & Inventory Analysis - is the process of understanding the product_mix combined with the knowledge of the demand for product. It is the technique to determine the optimum level of inventory for an organization. Inventory optimization in supply chain, ABC

analysis is an inventory categorization method which consists in dividing items into three categories, A, B and C: A being the most valuable items, C being the least valuable ones.

4.7 Transportation & Logistics - is the portion of supply chain management that encompasses distribution, transportation and customs. It is not unusual for transportation costs alone to be more than 10% of revenue.

5.0 Decision Criteria

The basis for the evaluation and assessment will be focused on Cost, Cash Flow and Customer satisfaction criteria, plus an added weight of impact over time as we explore a strategic approach to Supply Chain at Newsco/Telemetrix.

Table 5 – Decision Criteria & Rank- Cost, Cash Flow, Customer Satisfaction

Ranking	Decision Criteria	Centralized Supply Chain Function				
		Strategic Sourcing	Category Management	Supply Chain Compliance	Demand & Forecast Planning	Warehouse & Inventory Analysis
1-3	Cost	3	3	3	3	3
1-3	Cash Flow	2	2	2	3	2
1-3	Customer Satisfaction	3	3	2	3	3
Total		8	8	6	9	8

Table 6 – Weighted Impact of Decision Criteria – Impact vs Time

Ranking	Impact/Time	Centralized Supply Chain Function				
		Strategic Sourcing	Category Management	Supply Chain Compliance	Demand & Forecast Planning	Warehouse & Inventory Analysis
5	High Impact - Short Time Frame	0	0	0	X	0
3	Low Impact - Short Time Frame	0	0	0	0	X
2	High Impact - Long Time Frame	X	X	X	0	0
1	Low Impact - Long Time Frame	0	0	0	0	0
Total		2	2	2	5	0

6.0 Alternative Analysis

6.1 Advantages and Disadvantages of Implementing Centralized Supply Chain Management Strategy

Advantages and Disadvantages of Centralized Supply Chain Management Strategy		
Role within Supply Chain	Advantages	Disadvantages
Strategic Sourcing	Is a systematic means of removing splintered and fragmented spend through Contract Management?	Individual Business Units local requirements may be over looked or overruled if specifications are not clearly documented.
	The ability to recognize and leverage economies of scale. Volume purchasing means that better prices, greater discounts and more agreeable terms can be obtained, controlled and improved.	
	Safety, Quality, Delivery and Cost standards can be communicated to the Supplier at the appropriate time meeting Newsco/Telemetrix internal and external customer specifications.	Regional Supplier short term discounts may not be realized if contracts are not established in advance.
	Total Cost Analyses will have more integrity as it will capture the entire enterprise vs fragmented segments of the business.	
	A global market approach to sourcing will capture local distributors close to the point of fit in a systemic manner. Ex. The utilization of Global companies such as "Parker Industrial" could potentially service Newsco India under a global service agreement vs procurement and subsequent shipment from Canada reducing the cost of transportation.	
	Risk Analysis/Avoidance can be performed and executed to minimize the risk of supply. Ex. Single vs Multiple Source Strategies where critical parts maybe at risk due to poor supplier relations or poor supplier financial performance.	Contract Management can be seen as bureaucratic and perceived as an avoidable cost center.
	There is a greater opportunity to standardize Contract Development and Compliance.	

Note: Further Alternative Analysis please refer to; Table 5 – Decision Criteria & Rank- Cost, Cash Flow, Customer Satisfaction and Table 6 – Weighted Impact of Decision Criteria – Impact vs Time, 6.6 Newsco/Telemetrix - Featured Constraint & Opportunity Centralized Supply Chain Strategy.

6.2 Advantages and Disadvantages of Centralized Supply Chain Management Strategy

Advantages and Disadvantages of Centralized Supply Chain Management Strategy		
Role within Supply Chain	Advantages	Disadvantages
Category Management	A greater focus on specific product families will drive high customer service performance including KPI's such as On Time Deliver, Inventory Turns or Premium Freight Cost.	Purchase requisitions for ad hoc goods have to be sent from other areas to the Category Managers causing delays and some irritations.
	Buyers are formally trained and experienced with better market knowledge in specific product families with the leverage to reduce cost holistically.	
	Specialized Category buyers will have greater visibility to enterprise demand and market changes which may impact a product life cycle.	The BU General Manager will lose a level of autonomy in their purchasing process.
	In many cases specialized Category Buyer will have a competitive advantage because they know competing suppliers and their Supply Performance as well as their total product/service offering making a contract more attractive.	
	A greater opportunity to standardize the purchasing process.	

6.3 Advantages and Disadvantages of Centralized Supply Chain Management Strategy

Advantages and Disadvantages of Centralized Supply Chain Management Strategy		
Role within Supply Chain	Advantages	Disadvantages
Warehouse & Inventory Analysis	Inventory levels can be reduced as material is ordered based on true reorder points and subsequent lead times for external customers and internal manufacturing.	Having centralized warehousing creates a risk of lost goods and subsequent operational stoppage in the event of a fire.
	Better controls of material preservation -Materials that are susceptible to damage or contamination due to temperature extremes, improper handling, or incorrect packing.	
	A greater opportunity to standardization of Warehousing and Inventory Analysis.	

Note: Further Alternative Analysis please refer to; Table 5 – Decision Criteria & Rank- Cost, Cash Flow, Customer Satisfaction and Table 6 – Weighted Impact of Decision Criteria – Impact vs Time, 6.6 Newsco/Telemetrix - Featured Constraint & Opportunity Centralized Supply Chain Strategy.

6.4 Advantages and Disadvantages of Centralized Supply Chain Management Strategy

Advantages and Disadvantages of Centralized Supply Chain Management Strategy		
Role within Supply Chain	Advantages	Disadvantages
Supply Chain Compliance	Supply Chain Policies and Procedure can be developed, maintained and revised in one location by specialized talent with a focus on cost reduction, serviceability and risk mitigation.	The centralized purchasing department may become too large and complex to manage. Conversely, with a small company it may not be cost effective to have staff and a computer system that only deals with purchasing
	Executive and Senior Management can establish better control of corporate contracting terms and practices in one centralized repository.	
	The implementation of documented business rules will empower employees to behave in the best interest of the organization. The Executive and Senior Management will be more productive in the area of strategic business planning vs time spend in the administrative duties of engaging in an approval process.	
	Establishes a governing body to impose discipline action for unsavory and unethical procurement practices such as sourcing for personal gain.	
	Procurement records can be kept in one location for all purchases.	
	Talent can be acquired with specialized certification from Strategic Sourcing to Transportation & Logistics reducing cost, minimizing risk and increase service to internal and external customers.	
	A greater opportunity to standardize Supply Chain Competency and Compliance.	

Note: Further Alternative Analysis please refer to; Table 5 – Decision Criteria & Rank- Cost, Cash Flow, Customer Satisfaction and Table 6 – Weighted Impact of Decision Criteria – Impact vs Time, 6.6 Newsco/Telemetrix - Featured Constraint & Opportunity Centralized Supply Chain Strategy.

6.5 Advantages and Disadvantages of Centralized Supply Chain Management Strategy

Advantages and Disadvantages of Centralized Supply Chain Management Strategy		
Role within Supply Chain	Advantages	Disadvantages
Demand/ Forecast Planning	Decision makers have access and visibility to internal & external customer demand & forecast.	Individual Business Units make their own decisions in isolation driving up cost through excess inventory.
	Enables specialized Material Planners to schedule orders across multiple Business Units in order to maximize the overall efficiency of supplier fulfillment and other cost such as transportation to the end customer.	
	Centralized Demand reporting provides sales personnel with answers to time-sensitive operational questions such as <i>“What delivery date should I promise this customer?”</i>	
	Ensures that economic order quantity is achieved for all lot orders optimizing transportation and warehouse cost.	
	A greater opportunity to standardization of Demand and Forecast Planning.	

Note: Further Alternative Analysis please refer to; Table 5 – Decision Criteria & Rank- Cost, Cash Flow, Customer Satisfaction and Table 6 – Weighted Impact of Decision Criteria – Impact vs Time, 6.6 Newsco/Telemetrix - Featured Constraint & Opportunity Centralized Supply Chain Strategy.

6.6 Newsco/Telemetrix - Featured Constraint & Opportunity Centralized Supply Chain Strategy

Newsco/Telemetrix - Featured Constraint & Opportunity Centralized Supply Chain Strategy	
Constraints	Opportunity
The executive branch of the organization enables a high level of autonomy in each business unit. The implementation of a robust structure approach to sourcing would be a significant paradigm shift and require a change management plan.	Newsco/Telemetrix has embarked on the implementation of a Quality Management System where standardization is a fundamental requirement. QMS systemically reduce cost, enhances customer satisfaction, provides access to new markets and allows for increased market share. A number of Supply Chain Elements are included in a QMS such as Purchasing, Document Control, Product Identification and Tractability just to mention a few. Whether by design or necessity, synergies between a QMS or SCM will bring about change to improve the profitability of the organization.

7.0 Action and Implementation Plan

Telemetrix Calgary is to retain two specialized Material Planners immediately to work with Operations in Casper, WY and Conroe TX with the goal of obtaining a deeper understanding of their inventory. An Inventory Analysis will be performed by the operations team and supported by the Material Planners to categorize their inventory into ABC buckets based on Sales Performance, Dollar Value on each SKU. A parts will represent a combination of the top 15% of Items Sold in the last 12 Mo and 15% of the highest dollar value per SKU. B parts will represent the next 15 % of the parts based on the same criteria and the C parts will represent the remaining population.

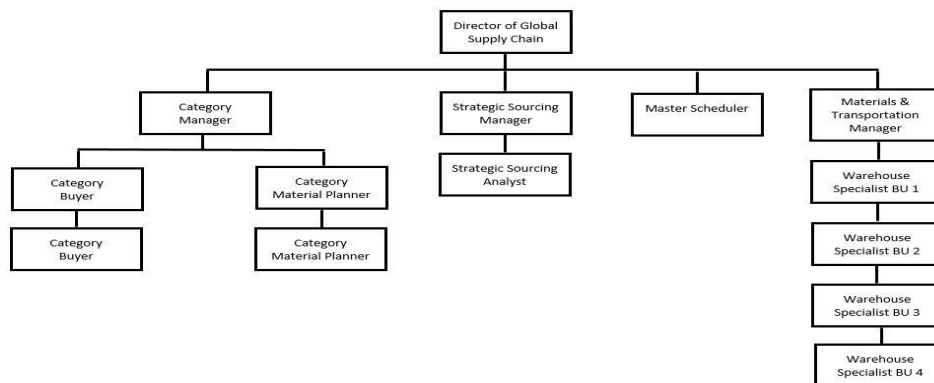
Once the Inventory has been categorized a minimum stock level will be calculated for each part based on the average daily demand, replenishment lead time and a safety factor. Each location will set up a Kanban System (pull system) as either location does not have a function automated MRP system in place. SAP Business one Implementation is tentatively scheduled for 2016.

The Material Planner will create a “Rolling Forecast” for each location to monitor the actual monthly consumption, forecast the upcoming three months and share that information with Telemetrix Tier 1,2,3 Suppliers to ensure the supply chain is can react quickly to any foreseen shortages. This action will create immediate visibility to A Category Parts where Key Stakeholder can make an informed decision on spend.

In the fourth quarter a Hoshin Planning Session will be held by Newco’s Executive Branch where High Impact Breakthrough Objectives are identified in the area of Safety, Quality, Delivery and Cost. In order to meet Newsco/Telemetrix Mission -To provide clients with industry leading technical expertise, equipment, and service. I would submit that a strategic approach be tabled leveraging a Centralized Supply Chain with the implementation of Demand/Forecast Planning and employ tools such as a Sales & Operations Planning Process, Category Management, Strategic Sourcing and Supply Chain Compliance.

In December of 2015 a budget will be approved in support the changes to Telemetrix Supply Chain Org Chart.

Figure L – Future Calgary SCM Org Chart



A Category Manager will be hired in January 2016 and begin to build her/his team of Category Buyers and Material Planners concurrently, each BU will have hire a Warehouse Specialist ensure inventory integrity through cycle counting and material preservation. The Warehouse Specialist will also maintain and monitor supply chain KPI’s such as Inventory Reliability and Serviceability, Material Handling Damage and slow moving inventory.

A Strategic Sourcing Manager will be hired in February 2016 and begin to build her/his team. This role will be the final talent acquisition and their direct report will complete the future Calgary SCM Team.

I am confident that these strategies will provide the foundation for Newsco/ Telemetrix to ultimately exceed their mission “To provide our clients with industry leading technical expertise, equipment, and service” and reach world class results in Supply Chain Management.

Figure M- Gantt Chart – Action and Implementation Plan

Gantt Chart - Action and Implementation Plan										
Who	Support	What	14-Jul	15-Aug	16-Sep	18-Oct	19-Nov	21-Dec	22-Jan	23-Feb
Supply Chain & Manufacturing Coordinator	General Manager	Attain 2 Proficient Material Planners								
Conroe & Casper Op's	2 Material Planners	Classify ABC Inventory - C&C								
Executive Branch	Lean Facilitator	Hoshin Planning Session - Approve Global SCM Strategy								
Executive Branch	Supply Chain & Manufacturing Manager	Approve 2015 Budget								
Supply Chain Director	N/A	Hire a Category Manager								
Supply Chain Director	N/A	Hire a Strategic Sourcing Manager								