7 MUST HAVE Information Flows

for Every Supply Chain

Information flows have been for more than 20 years, recognised as an essential part of the "THE SUPPLY CHAIN". Still today, I visit distribution centres where trucks arrive without an **Advanced Shipping Notice** (**ASN**). I frequently discuss safety challenges with experienced operators that do not fully appreciate the value of **Asset Performance Monitoring.** I also attend technology vendor presentations where an integrated **Demand and Production Plan** can only be found under the future product feature list.

This report re-introduces and updates 7 MUST HAVE information flows for the modern supply chain, highlights recent developments and maps the direct benefits derived from their implementation.

All 7 MUST HAVE information flows are supply chain **OPTIMISATION** enablers. Integrating the information to operational processes and systems allows us to create accurate, detailed and consistent views of future supply chain events and therefore **PLAN** for an outcome rather than **REACT** to a situation.

1. Location Information

The advent of Global Positioning and Mobile Data Services create a relatively inexpensive solution for tracking the *location of goods, assets and people*. Any of these can be located within meters of their actual location in near-real time. The recent advancement of micro-location beacon technologies has improved the accuracy of the location to centimetres and the currency of the information down to milliseconds. A vast wave of new applications is on its way to yet again radically change the supply chain.

CHALLENGE: The amount of location information generated and processed due to micro-location applications will exceed that of current GPS or Mobile data applications. Can the current technology solutions scale up to the challenge?

2. Demand forecast and production plan

Anticipation and visibility of future **demand** on the supply chain is fundamental to meeting customer expectations and optimising **production** plans. There remain far too main supply chains where even a basic demand forecast is not shared between the players. Often, these chains become the "easy" victims of new sophisticated market entrants. Meanwhile, those supply chains that share a demand forecast have been reaping the benefits of the collaboration for years.

Challenge: The accelerating speed at which Business-2-Consumer (B2C) trade is growing is putting pressure on the traditional "aggregate" demand forecast technologies commonly used to replenish the distribution centre or the store. When will the current solutions evolve to meet the expectations of the customer to replenish their individual pantry, update their wardrobe or service their vehicle?

3. Advanced Shipping Notice (ASN) and Proof of Delivery (POD)

These are the most basic and most critical of all the information flows. Knowing the exact details of a shipment allows the receiver to prepare and optimize their processes and operations. Many supply chains today do not process shipments without an ASN and a POD. Yet, equally as many, operate complex transport assets and schedules without ASNs. The former are winning the efficiency and value game. The latter impose unnecessary costs and fail to meet service levels.

CHALLENGE: There is an additional, often manual labour cost, involved in creating accurate (e.g. scan pack) ASN information. Product tracking technologies, like RFID, have promised to automate the dispatching and receiving processes but often fail the return-on-investment test. How can we cheaply and effectively introduce tracking technologies at the point of production?

4. Inventory information sharing

The right product at the right place at the right time is a key indicator of a successful supply chain. This applies equally to retailers and manufacturers, the shop shelf and the factory warehouse. Smart supply chains share current inventory information in near-real time. This enables the trading partners to make informed decisions at the latest possible time, minimize their stock holdings and maximise the velocity of their products. Where inventory information is not shared, overstock situations are frequent, product movement is slow, product life is lost and supply chain costs rise.

CHALLENGE: Inventory is managed differently across different parts of the supply chain. This is because different systems and processes are used to meet the demands of the specific operation. How can we make sure that inventory information is visible and accurate across the chain while minimizing the cost of expensive reconciliation processes?

5. Customer feedback

We make considerable investments to understand our customers' opinion for our products and services. Yet we dedicate comparatively little effort to proactively listen to our customers on the performance of our supply chains. In the many years of being an on-line customer it was only once, very recently, I was explicitly asked on the quality of service of their chosen supply chain provider. We only listened to our customers when something has gone wrong, or through annual surveys whose findings we find hard to action upon, due to the lack of transactional information.

CHALLENGE: Today's supply chain technology does not support integrated processes to seek, record and analyse customer feedback relevant to the supply chain. There is some catching up to do here. We can make a good start, by introducing random but frequent "survey" style feedback triggered by ASNs and PODs.

6. Asset performance monitoring

The value of the supply chain assets can be a substantial component of the capital required by a business to operate. In the case of a 3rd Party Logistics (3PL) provider it is a key financial ROC measure used to determine the overall performance of the company.   Telematics asset monitoring technology is readily available and smart operators use it to maximize the return on their investment, while also achieving operational excellence on safety. Some go further and include the technology into the overall asset procurement negotiation and management process.

CHALLENGE: Asset performance information is not seamlessly integrated into today's supply chain systems often requiring ad-hoc design and processes. Moving forward we must establish supply chain asset performance standards and allow technology vendors to implement them in an integrated fashion.

7.   Environment information flows

The supply chain both impacts and is impacted by the environment. Asset performance and efficiency, energy consumption and carbon emissions are standard metrics. Importantly, supply chain operational improvements typically also reduce environmental impacts. The impact of the environment to the supply chain is equally well understood. Less so understood is however, the value of systemically integrating environment information to our systems and processes. Weather conditions for example, materially influence both demand and daily operations yet they are only ad-hoc parameters in our decision making processes and systems.

CHALLENGE: How quickly can we move the technology dial to include environment information flows to our systems and processes? What are the key environment information flows that will deliver immediate value to our chains?

8.   Social media information

CHALLENGE: Why did I include social in this report? In the years to come social will transform to an additional source through which location, inventory, environment and other top 7 supply chain information will flow. Right now, it deserves a "temporary" promotion to the top due to the way its immediacy challenges the way we think about the supply chain. There are more questions here than answers.

How do we harness social media activity organising to influence demand forecasting and production planning?

How do we reflect social media event reporting to direct transport operations around possible traffic delays?

Should we consider activity reported publicly on social media as part of every-day safety assessment of supply chain agents?

The table below summarises how the top 7+1 information flows presented here improve your business bottom line and provide a head start on how to build your business case to invest in creating and improving them.

THE BOTTOM LINE – THE BUSINESS CASE

	Location	Demand	ASN & POD	Inventory	Feedback	Asset	Environment	Social
Service improvement	✓	✓	✓	✓	✓	✓	✓	✓
Safety Improvement	✓					✓	✓	✓
Sales improvement	✓	✓		✓	✓			✓
Cost reduction	✓	✓	✓	✓	✓	✓	✓	✓
ROC improvement		✓		✓		✓		