



# A Practical Implementation of Data Synchronisation for Suppliers/Sellers

Earl Lappen

Senior Professional Services Advisor





# Session Content

An introduction to:

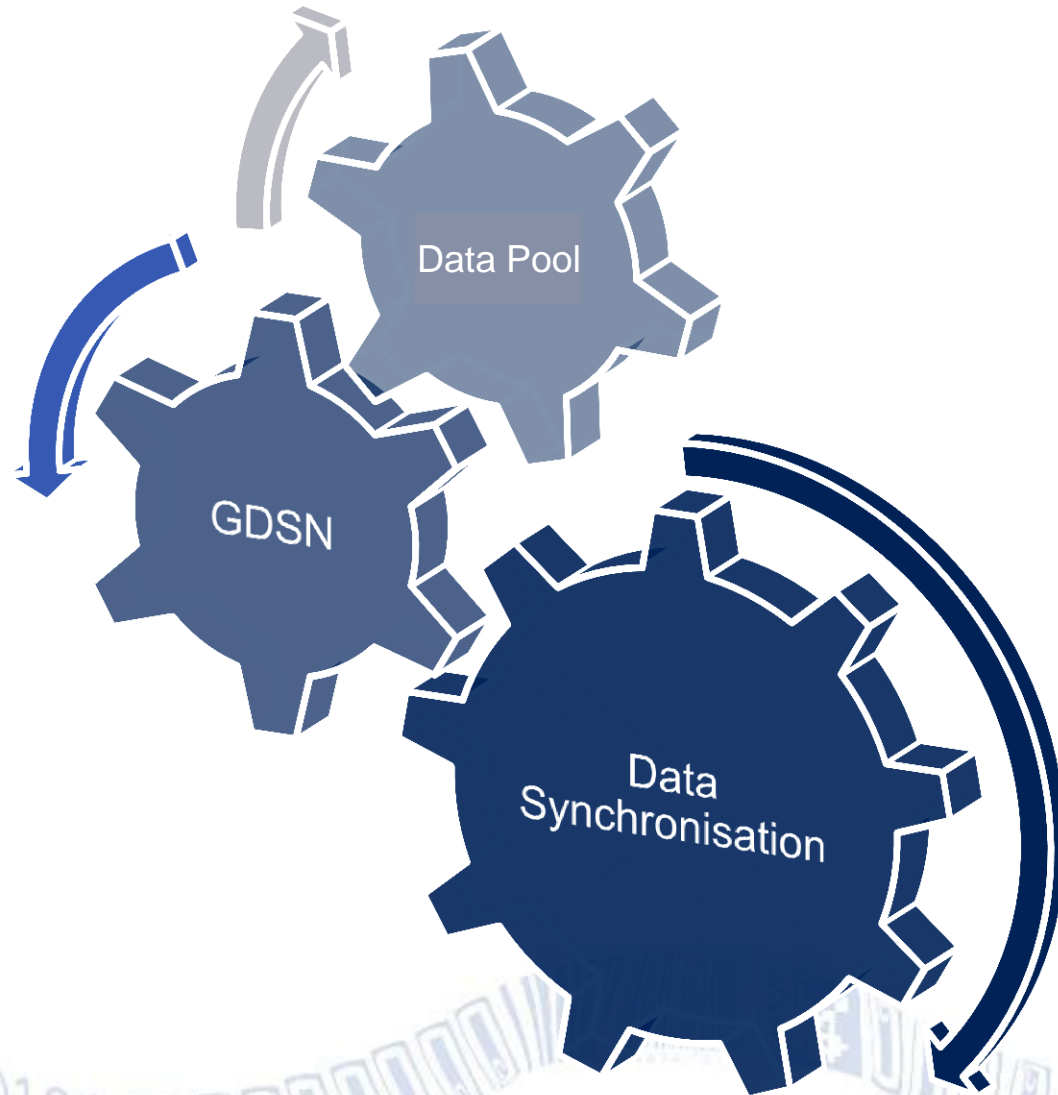
- Data Synchronisation,
- GS1 Global Data Synchronisation Network (GDSN), and
- GS1net

Understanding the Business Case for Data Synchronisation

Practical Steps to Commencement

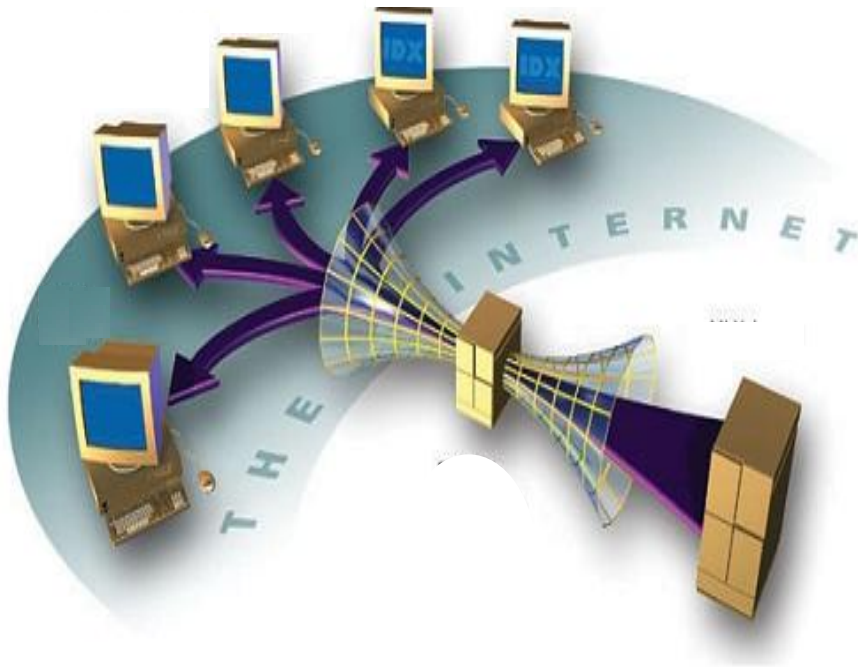
Lessons and Tips from Our Experience

Services and Support





# What is Data Synchronisation?

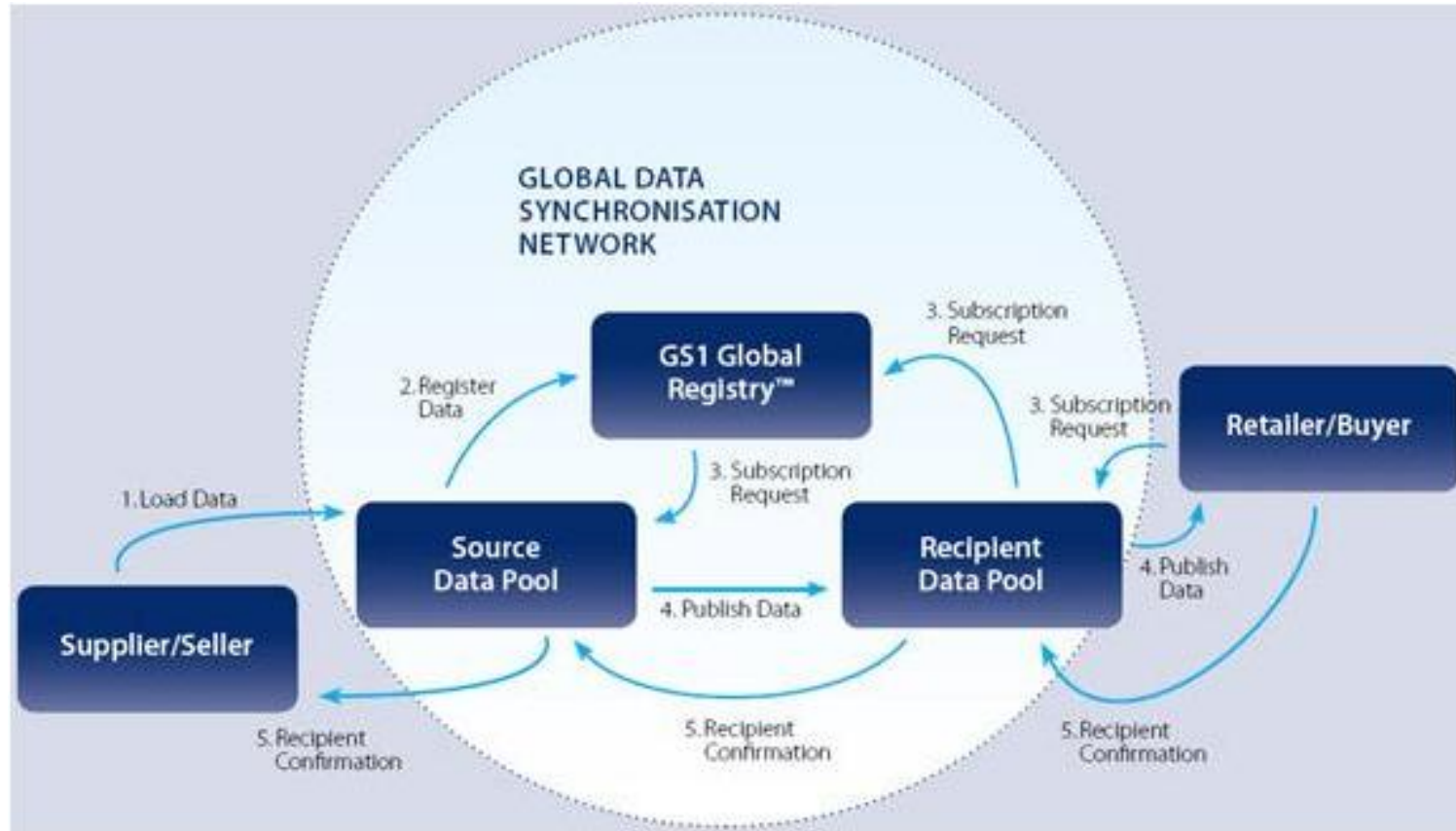


The continuous and automated exchange of standardised item master data within and between organisations.





# GDSN





# Data Quality Awareness

## What is the Master Data Problem?

These are primarily:

Data integrity problems  
(completeness and conformity of data)

Data Quality problems  
(accuracy, consistency, reliability).

These include:

- Missing/Incorrect GTINs
- Same GTIN attached to multiple retailer item codes
- Missing Middle Levels of Packaging
- Item/Pack/Case level L,W,H dimensions missing/incorrect
- Item/Pack/Case level weight missing/incorrect
- Hard “Packaging Quantity” Errors
- Unit of Measure Confusion/Misuse
- Incomplete Item Descriptions
- Manufacturer Name Problems
- Missing Product Brand Names
- Obsolete Products

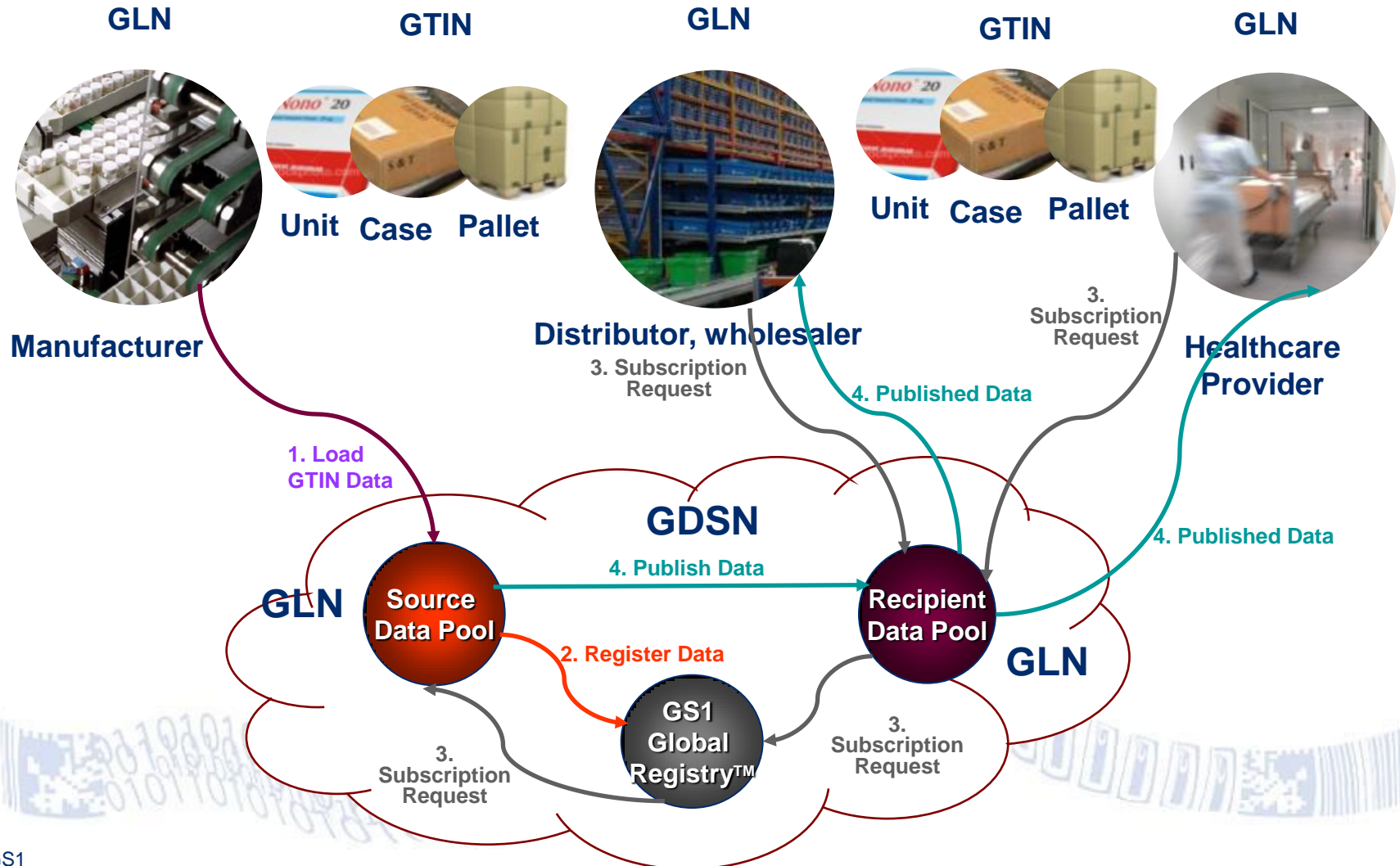
Poor data quality across various industry sectors

Incorrect data which will impact on Patient Safety

Bad data costing companies millions of dollars

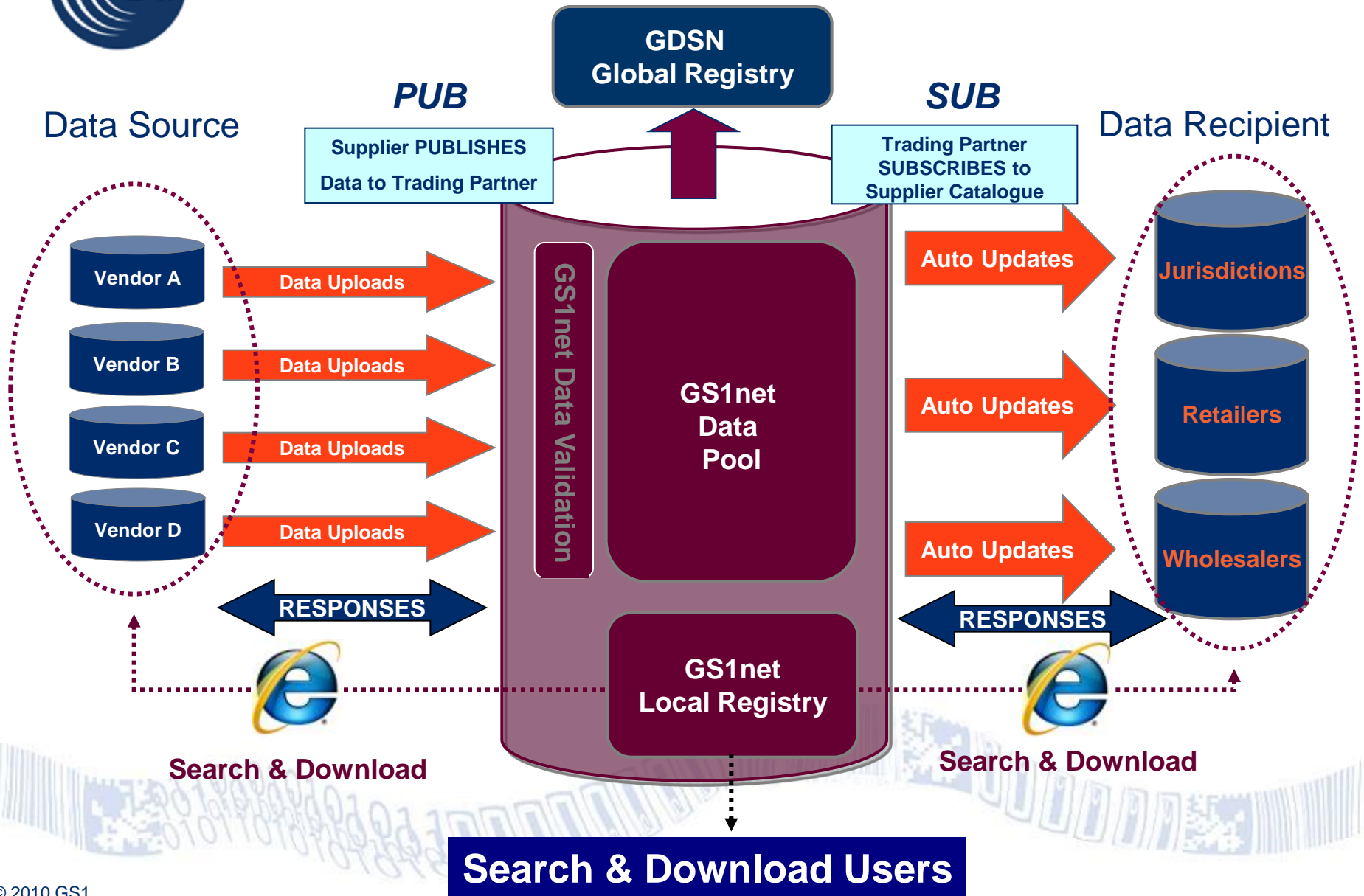


# GDSN can be used to solve the master data problem and more





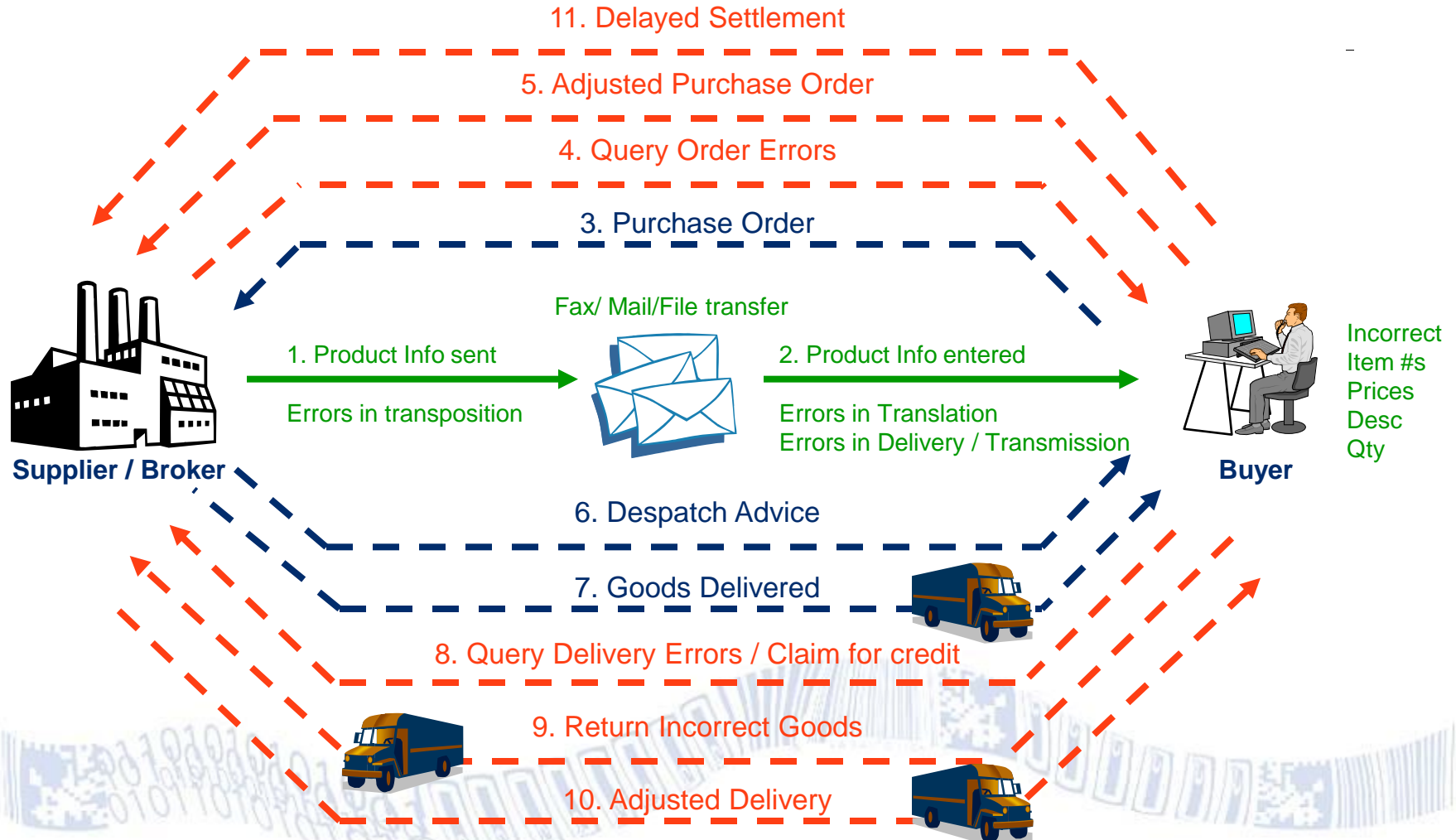
# GDSN Compliant Data Pool





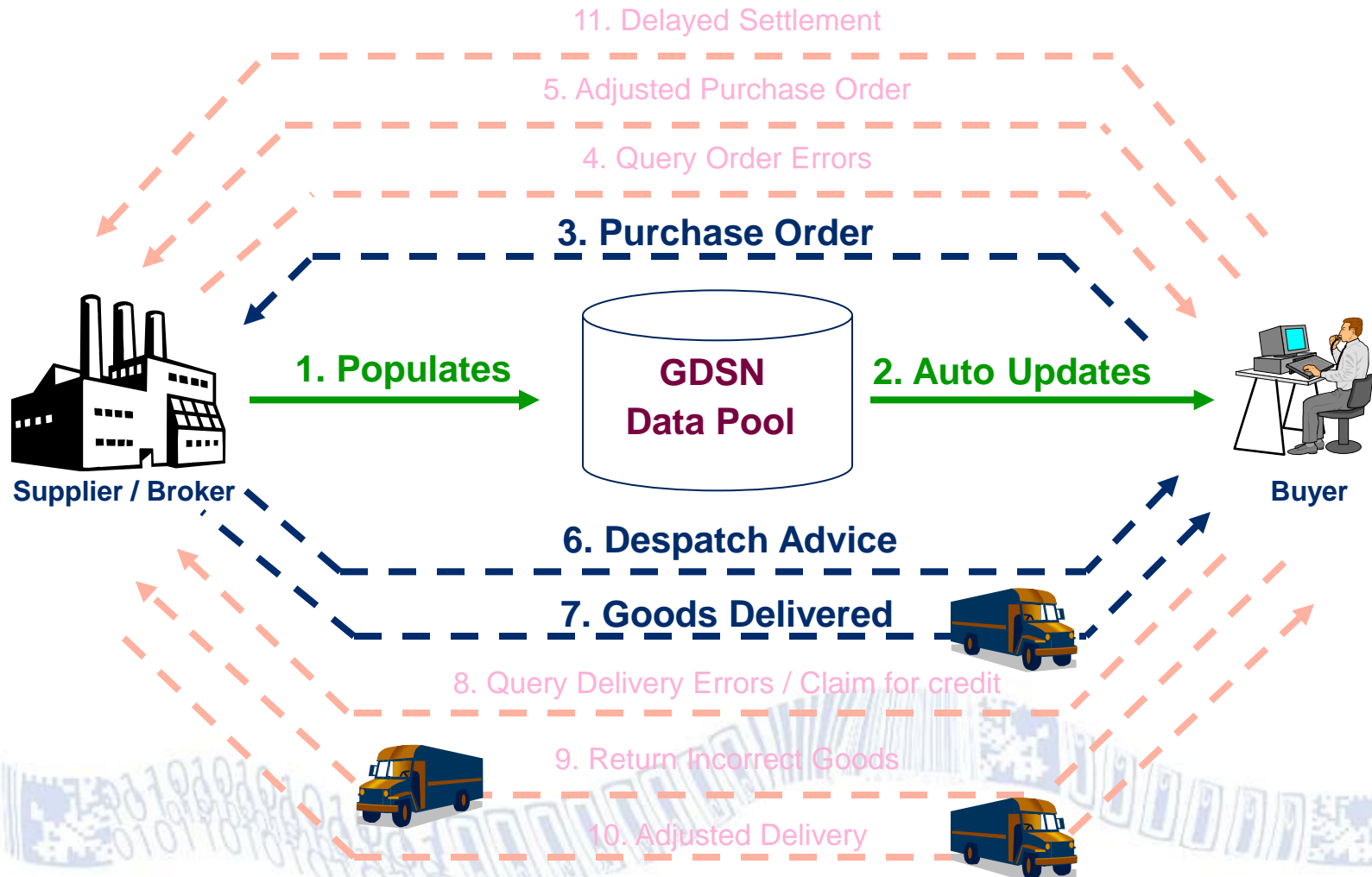


# Before Data Synchronisation





# With Data Synchronisation





# Data Synchronisation Benefits

---

Business  
Benefits

**Right product ordered**

---

**In the correct quantity**

which ensures that the product is available when needed

---

Improvements  
in supply chain  
management  
efficiency

**Monetary benefits**

invoice claims reduced

---

reduction of error reconciliation cost

---

**Improved speed to market**

---

**Improved receiving times**

---





# Benefits for Suppliers

Creation of one standard process for providing item and price details to all trading partners.

- The replacement of existing paper forms and specification sheets with one electronic system.

Improving product visibility and reach across Australia's largest buyers.

- Providing a solid basis on which to build electronic messaging systems for electronic collaboration (e-procurement etc.).

Reducing the effort and cost involved in communicating product and price information to trading partners

- Reducing ordering errors and costs associated with processing invoice reconciliation, credit claims and returns.

Decreasing 'out of stocks' and supplier capital tied up in safety stock.

- Significantly reducing the time and cost of introducing new products into the market.

Streamlining notifications of product recalls.

- Streamlining data provision processes to some regulatory authorities.



## Understanding the Business Case



# The Business Case

The data synchronisation project and its on-going sustainability should be framed within a business case that depicts:

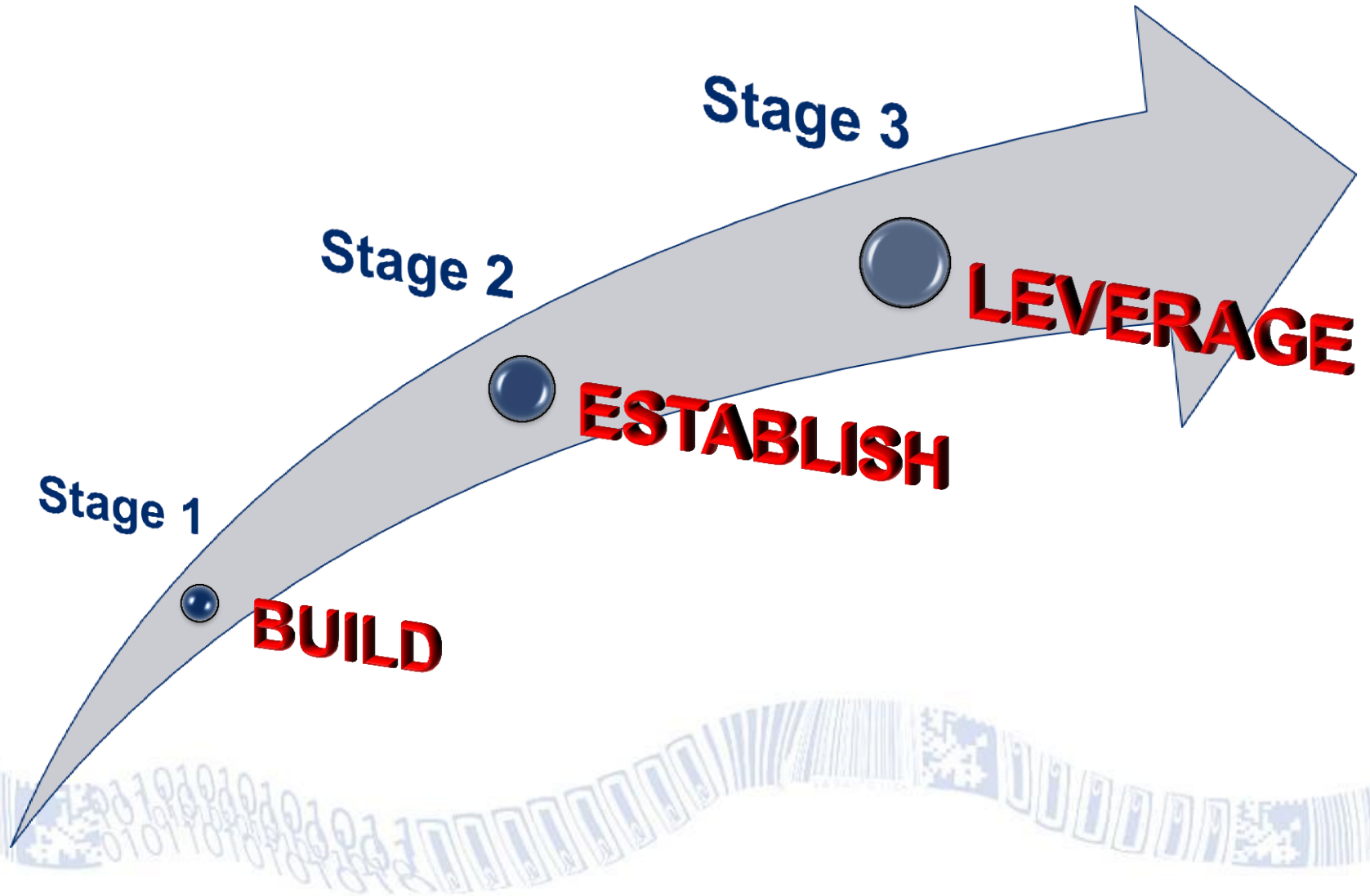
**How your organisation currently provides product and pricing data to customers, and where savings can be made**

**How many errors arise from incorrect or out of date data in your customer's systems, and where efficiencies can be gained**

**How would you provide images and other documents related to your products for centralised access, and what new opportunities can be uncovered**

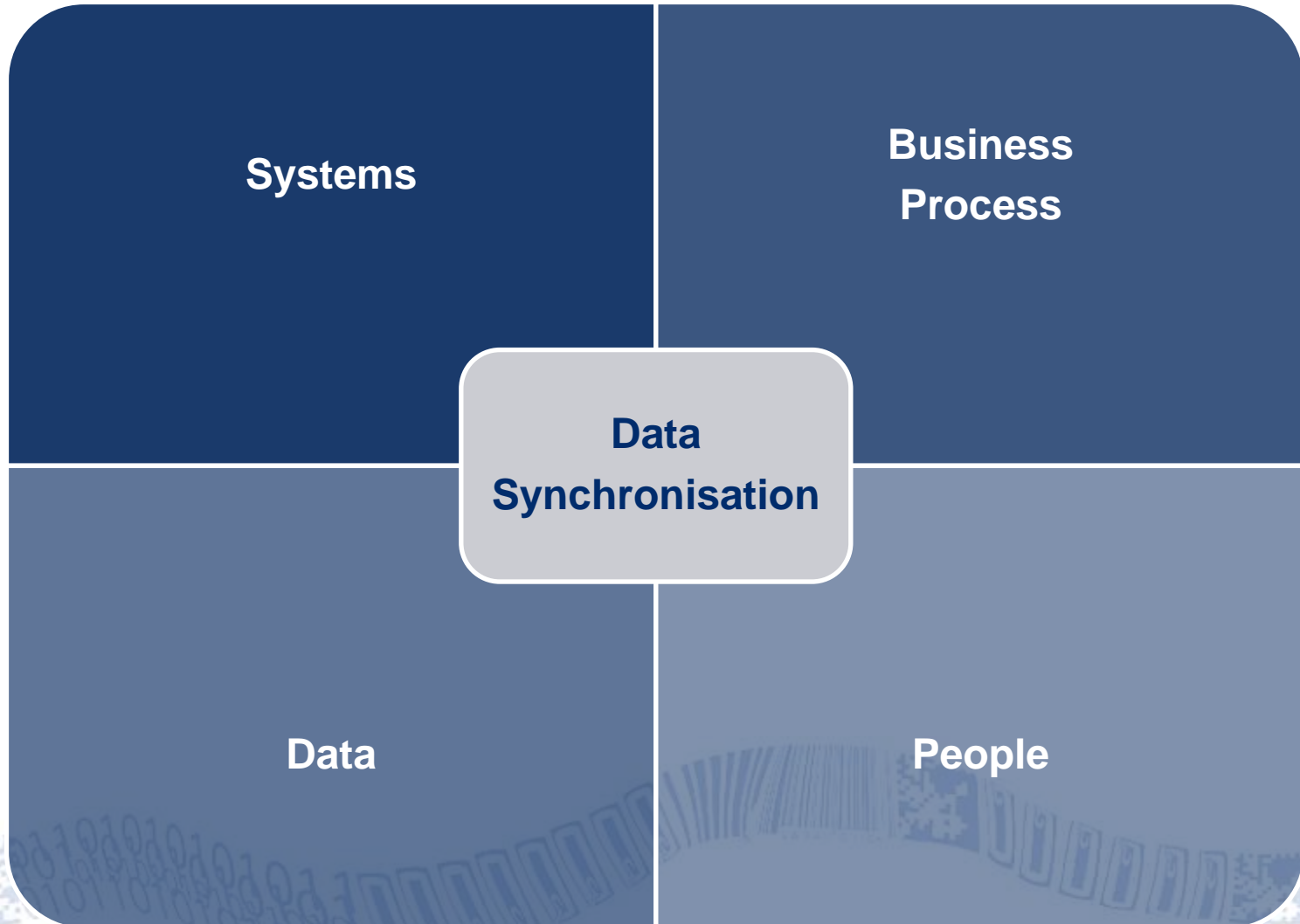


# The Vision





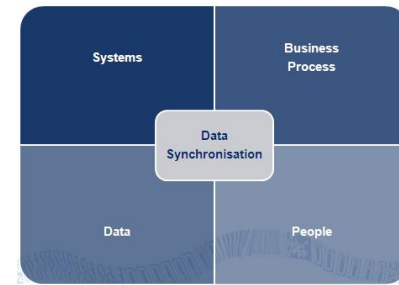
# The Data Synchronisation Environment







# Concerns



## **PEOPLE:**

- *Most business executives don't perceive data as a critical asset until they've been burned by poor quality data.*
- *Shared services and corporate information management is viewed as an impediment to getting things done (as they have a hard time staying ahead of business needs).*

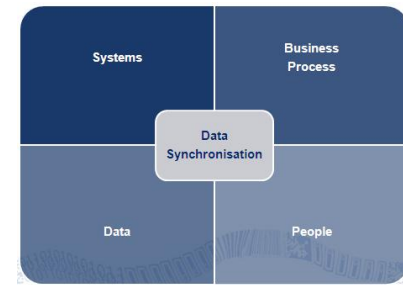
## **DATA:**

- *Many commonly used terms often mean very different things to different people within your organisation*
- *Poor Data Quality (data is not Clean, Consistent or Complete).*

## **SYSTEMS:**

- *So many different applications manage their own portion of their siloed master data.*
- *ERP systems do not capture all of the required attributes of an item.*

# Concerns (continued)

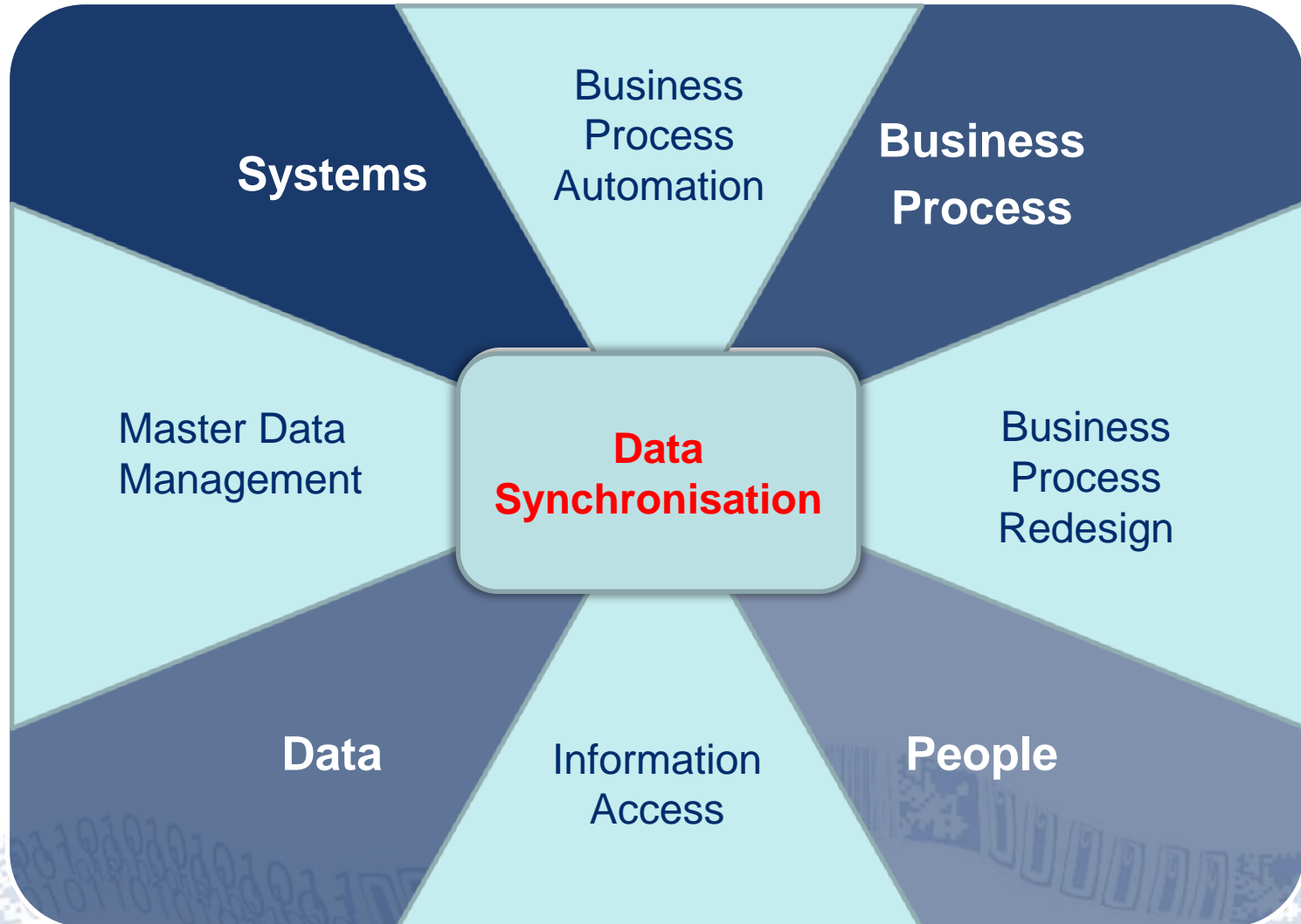


## ***BUSINESS PROCESS:***

- ***Data Management Processes (lacks ownership and accountability, and is complex due to the cross-functional nature of the data)***
- ***The need to integrate data content within business processes***
- ***The need to maintain governance and control over content to support collaboration and regulatory compliance requirements.***
- ***Reconciling enterprise (head-office) and local requirements for data.***
- ***Newly acquired business brings along additional systems and information, making the delivery of unified and consistent information across the enterprise a major challenge.***

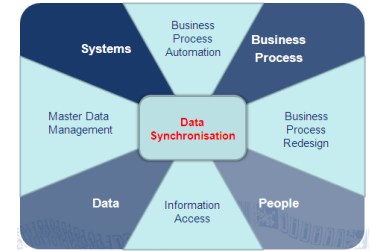


# The Reality





# The Challenge



On-going data synchronisation requires the **integration and alignment** of Data, People, Systems and Business Processes **into Business Critical Operations**. This is achieved through:

## Master Data Management & Data Governance

- aligning Data and Systems

## Business Process Redesign

- aligning Business Processes and People

## Business Process Automation

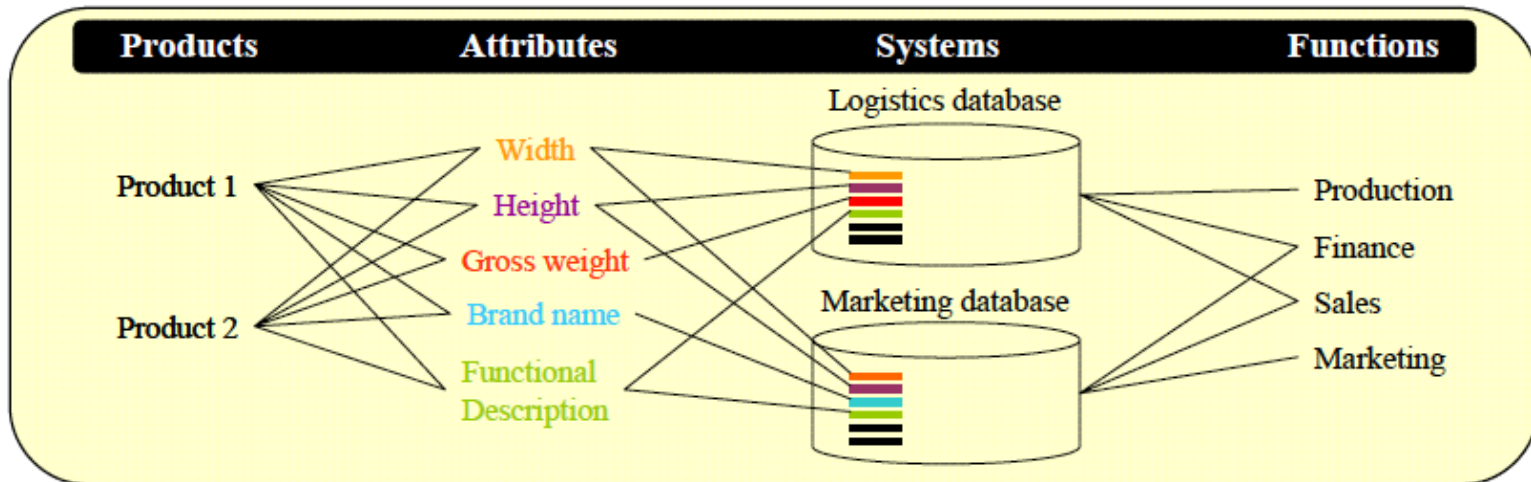
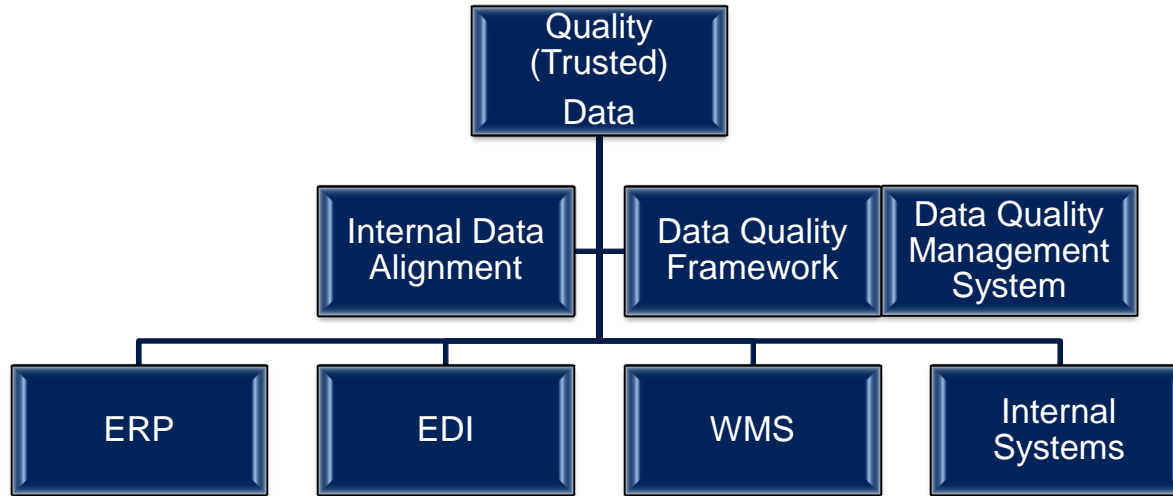
- aligning Systems and Business Processes

## Information Access

- aligning Data and People



# Quality (Trusted) Data



**\*Source:** Introductory Paper for an IDA Roadmap ver4, 17 May 2007



# Defining data quality

**Completeness**

**All the required values are electronically recorded**

**Standards-based**

**Data conforms to industry standards**

**Consistency**

**Data values aligned across systems**

**Accuracy**

**Data values are right, at the right time**

**Time-stamped**

**Validity timeframe of data is clear**

**\*Source: GCI/CapGemini Report: "Internal Data Alignment", May 2004**



# Quality (Trusted) Data

It is the shared responsibility of trading partners:

- Suppliers/Sellers (information providers) are the source of the product data and so are the starting point for needed improvements in the processes for creating good data
- Retailers/Buyers (information recipients) have the responsibility to maintain accurate data within their systems and to ensure its integrity across their processes

Data Quality Functions includes:

- Evaluating source data
- Defining data quality rules
- Defining data latency requirements
- Identifying, standardising and consolidating duplicate records
- Matching records from identical classifications;
- Monitoring and reporting data quality metrics



# What is needed to achieve quality (trusted) data?

- Good **communication** in the trading partner relationship
- **Collaboration** between trading partners!
- **Commitment** to the necessary mindset and paradigm changes
- **People** focused on the different processes that take place in the value chain
- A robust **process** and **support tools** for the management of the quality





# Practical Steps to Commencement





# Practical Steps to Commencement

- 1 • **Establish executive sponsorship**, business ownership and a mixed team of dedicated resources.
- 2 • **Start with "getting data clean"** through mapping, checking and aligning. **Apply GS1:**
  - *Data Quality Audit*
  - *Data Quality Framework Implementation*
  - *Data Cleansing & Validation*
- 3 • **Define the business case and roadmap** for setting up structural improvement ("**keeping data clean**"), involving process changes and IT solutions.
- 4 • Make **data and process alignment** part of your trading partner collaboration towards data synchronisation.
- 5 • **Use industry endorsed GS1 Global Standards** as the basis for your own internal standards.
  - GDSN Trade Item for Data Alignment Implementation Guidelines, GS1 Global Data Dictionary (GDD), GDSN (Data) Validation Rules
- 6 • **Recruit the Project Team**
- 7 • **Undertake a Catalogue Ready Implementation**
  - In-house
  - **Consider GS1MO Catalogue Ready Checklist / Fast Track / Implementation Assistance**
- 8 • **Undertake Catalogue Live Implementation(s)** with your trading partners
- 9 • **Maintain on-going catalogue sustainability**



# How to make Internal Data Alignment a Reality

Each of the following initiatives will take time to implement and roll-out.

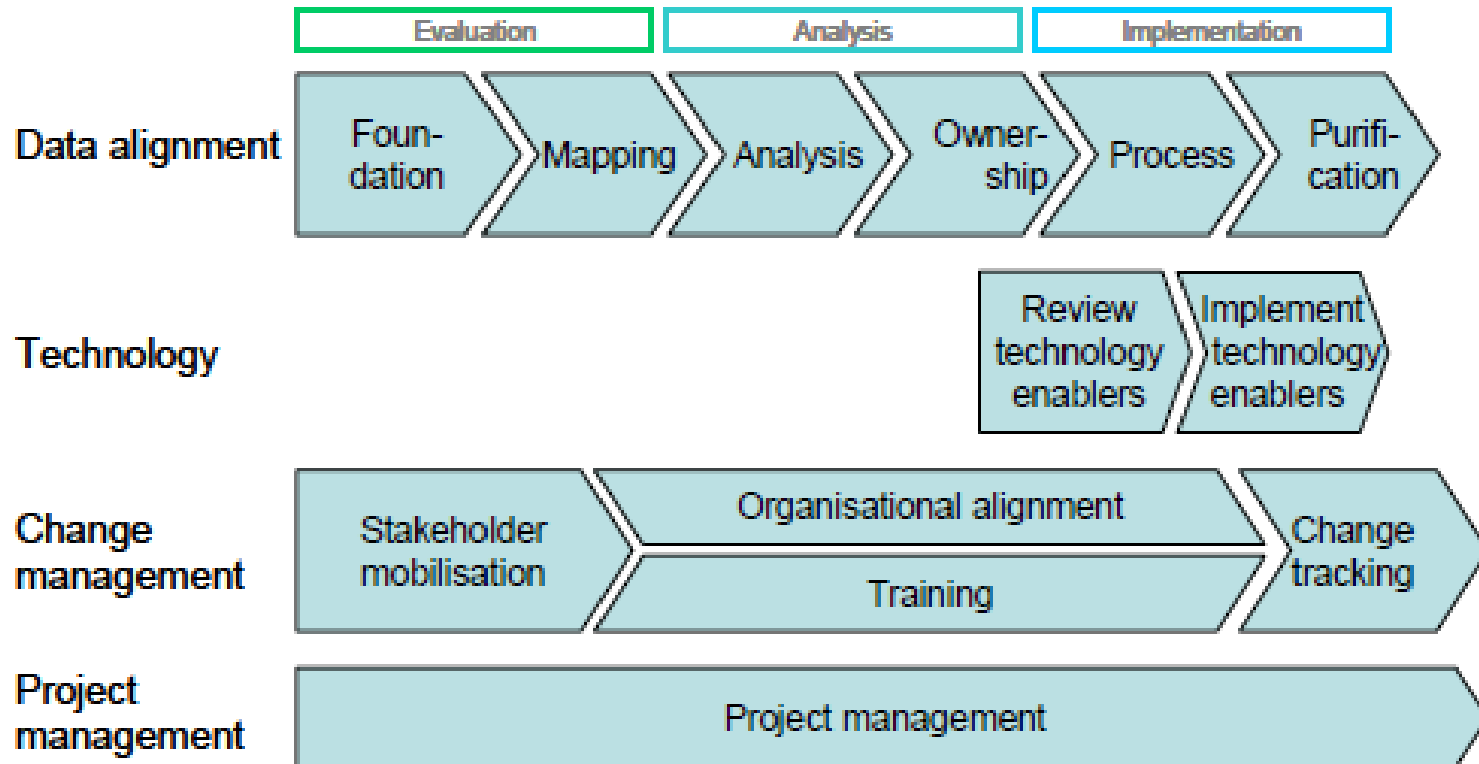




# Project Phases

**Project stream**

**Project component**



**\*Source:** CGCSA© 2006 How to use the Internal Data Alignment Toolkit ver1, September 2005



# Catalogue Ready Checklist

- 1. Register with your Data Pool**
- 2. Determine Your Product Range**
- 3. Identify Your Data Requirements**
- 4. Conduct a Gap Analysis**
- 5. Determine your Catalogue Data Upload and Connectivity Method (if applicable)**
- 6. Source Retailer Supplier IDs (If applicable)**
- 7. Determine your Catalogue Structure**
- 8. Prepare your Data**
- 9. Clarify Off-Invoice Allowances, Charges and 'Ship To' Locations (if applicable) against Pricing, with your Trading Partners**
- 10. Discuss Price Relationships Setup with GS1 Services Support**
- 11. Populate your catalogue**
- 12. Commence "Essentials" Program with GS1 Services Support**
- 13. Completing the Catalogue Ready Report**
- 14. Start the Synchronisation Process with Your Trading Partners**
- 15. Sustain Ongoing Data Maintenance**



# Data Related Activities





# Data Integrity & Data Quality

## DATA INTEGRITY

- ensures **completeness** and **conformity of data** with respect to:
  - GS1 numbering standards
  - Global industry standards.
  - Industry-specific business rules
  - Trading partner specific business rules

## DATA QUALITY ensures:



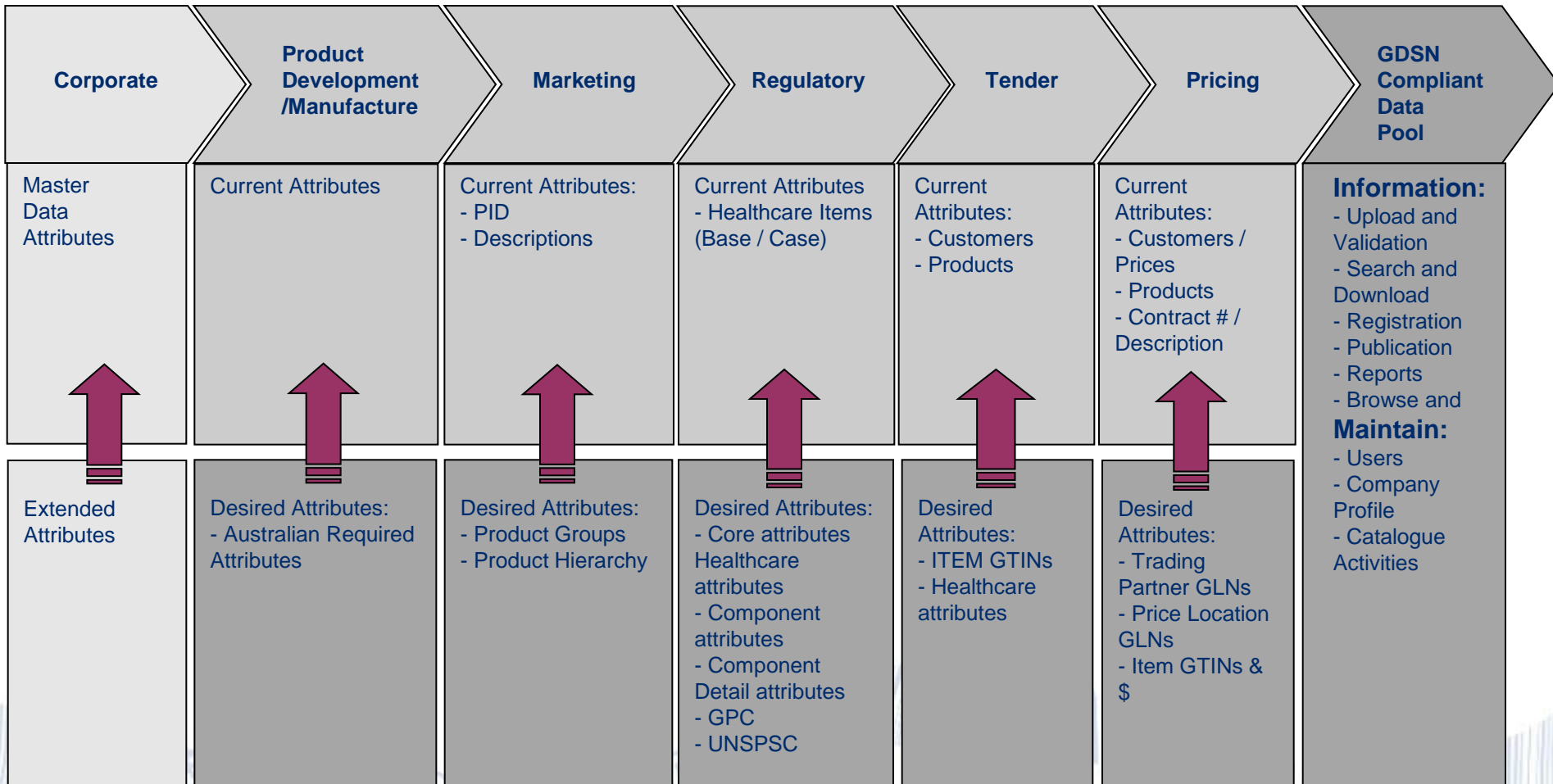
**GS1 works with and across Industry sectors to develop optimum data sets and data quality through:**

- **Documentation**
  - GDSN
  - Industry
  - Data Recipient
- **Validation**
  - Business & Industry Validation Rules
- **GS1 Services Support**
- **GS1 Data Quality Audit Service**





# Data View – Based on Business Operations & SOPs







# Lessons and Tips from experience





# Tips

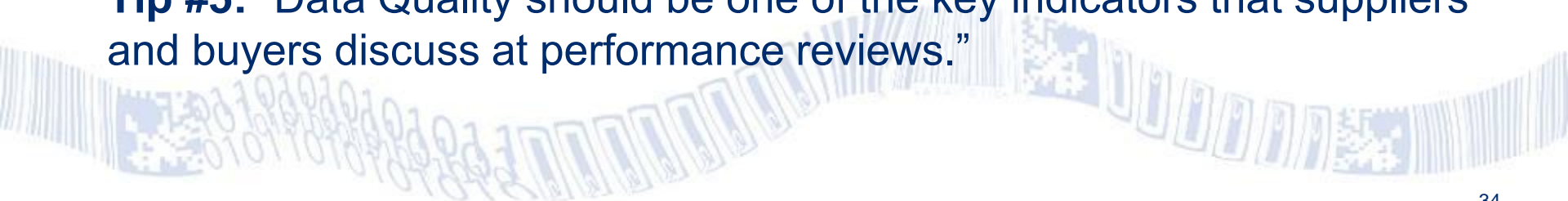
**Tip #1:** “Every organisation faces challenges with their data, as they try to manage relations with customers and the products and services they sell.”

**Tip #2:** “Know where all critical business data is located, including the ‘unofficial’ repositories.”

**Tip #3:** “Improving data quality is a critical step in improving the effectiveness of the supply chain.”

**Tip #4:** “Implement data management to ensure data accuracy, availability and accessibility.”

**Tip #5:** “Data Quality should be one of the key indicators that suppliers and buyers discuss at performance reviews.”





# Data Synchronisation is predicated on:

- **The continuous flow of information between Suppliers and Buyers**, via GDSN Compliant Data Pool:
  - by which agreed items are ranged to the individual Buyers,
  - all ranged items have current pricing in accordance with agreed Trading Terms & Conditions and Price Agreements, and
  - all information is accurate and up-to-date
- **Maintaining good communication:**
  - between Suppliers and Buyers and the Buyer's Data Synch Team,
  - with the GDSN Compliant Data Pool, and
  - with the GS1 Support Services team (as required)
- **Efficient Business Processes:**
  - aligned with Industry and Trading Partner Guidelines, Catalogue functionality and Supplier internal processes
- **Effective Business Support:**
  - Data Management: To ensure data quality (accurate, consistent and reliable data)
  - Roles and responsibilities: To ensure sustainability and Catalogue knowledge:
    - Having good product knowledge and understanding of internal as well as buyer related processes
    - Expert users in the method of uploading and maintaining data to the catalogue
    - Enter, validate, store and maintain all item and pricing data together with related attachments in a single location



# Some Realisations....

**Many companies have come to realise the following at various stages of their data synchronisation project (through planning, implementation and post-implementation)**

## THEN

## NOW

They had poor product identification.

They now have accurate product identification using GTINs for all packaging levels

They had multiple sources of the same pieces of data being maintained by different people, within different systems. Sharing of information was done largely in a manual way and often on a one-to-one basis.

They now maintain a single source of truth for each data attribute and share data using a GDSN certified data pool . Some have resolved to use their catalogue data to update their back-office systems.

They did not have designated data owners within their business.

They have either identified data owners or have designated (master data resources or shared services support resources) that have responsibilities and accountability for their data.

They had poor communications with their trading partners and customers and poor adherence to Industry and GS1 Standards

They have improved communications and agreement with their trading partners, for the adoption and adherence to agreed Industry and GS1 Standards.

They did not have common (standardised ) process to deal with internal master data.

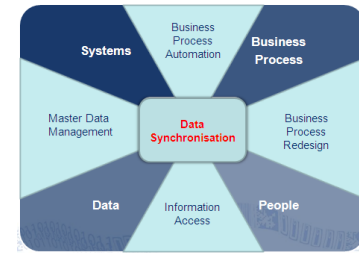
There is increased process consistency and alignment and some have undertaken workflow automation to assist.

They had poor systems that needed improvement or enhancement to provide both data and access to data.

They have identified or addressed these system short-comings with either short term or longer term solutions.



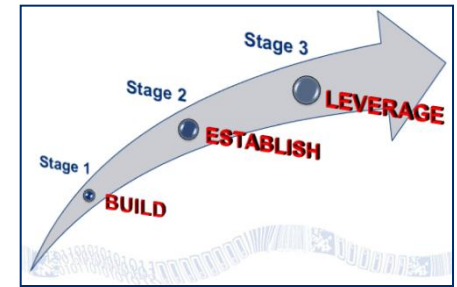
# Lessons Learned



- Data Synchronisation is **'Business as Usual'** and **"Critical"**, for both Suppliers and Buyers
- Catalogue data maintenance is **the responsibility of the data owner** (Suppliers)
- Suppliers have to strive to **achieve a "single version of the truth"** of item and pricing information
- Sustainability requires the **alignment of Business Processes** and **on-going Business Support**
  - A Data Synch champion
  - A Catalogue Administrator and a Back-up Administrator
  - Staff skilled in data input & upload methods, publishing and responding to subscription responses
  - Documented Business Processes (SOPs)
  - Maintaining catalogue knowledge through participation at user group and trading partner updates, and receiving Catalogue Essentials updates (and acting upon these as required)
- **Where available use technology to assist / enforce process workflow**



# Sustainability



## Definition:

- The capacity to maintain a certain process or state indefinitely

## Importance – Why be sustainable?

- Sustainability **ensures continuity**
- Sustainability **protects investments**
- Sustainability **maintains desired outcomes**
- Sustainability **provides a solid foundation for further development**
- Sustainability **builds confidence**
- Sustainability **validates strategies**
- Sustainability **avoids ‘reinvention of the wheel’**
- Sustainability **minimises ‘ad hoc’ costs**





# Services & Support





# Implementation Assistance

- **GS1net Support Services**
  - Delivery of “Essentials”
  - Telephone and email support
  - Data validation
  - Dedicated Services Support Advisor
  - Free GS1net Webinars
  
- **Professional Services**
  - Implementation arm of GS1
  - On-site assistance
  - Full project management
  - Cost recovery basis







# Implementation Assistance

**Talk to your local GS1 MO and they will be able to provide you with assistance and point you to your appropriate data pool.**

**Visit the following websites:**

- The GDSN website [www.gs1.org/gdsn](http://www.gs1.org/gdsn)
- The getting started general guide <http://www.gs1.org/gdsn/it>
- The Data Synch section of the GS1 Healthcare website <http://www.gs1.org/healthcare/library>





# Support & Implementation Services



The environment  
for global data  
synchronisation

**Different Data  
Pools offer  
different service  
levels!**

- **GS1net Implementation Assistance**
- **GS1net Fast Track**
- **GS1net Implementation Learn & Knowledge Training**
- **GS1net Webinars**
- **GS1net Sustainability**
- **GS1net Certification**
- **GS1net Audit**
- **GS1net Data Maintenance**
- **GS1 Data Quality Audit Service**
- **GS1net Supplier Engagement Support**
- **GS1net Data Recipient On-Boarding Support**



# Guides, Tools & Certified Products

- GS1net User and Technical Guides
  - GS1net User Guides for Suppliers / Buyers
  - GS1net Technical Information/Cook Book
  - GS1net Connectivity Options / File Formats
- GS1net Tools
  - GS1net Data Loading Tool (Browser Template)
  - GS1net Validator

- GS1net Certified Products

GS1net Certified Products are applications that have successfully completed the GS1net Certification Program. Therefore these applications fully comply with GS1net requirements.





# Thank You!

