

# The definitive guide to creating an effective logistics model

**Kate Harrison, a Senior Procurement & Logistics Analyst at SpringTide, shares her secrets to creating an effective model.**

One of the key aspects of our work is representing our client's operations as accurately as possible - using data supplied and that found through our own research.

Logistics is one area where this is particularly critical. SpringTide conducts a huge amount of analysis and modelling to understand options and opportunities to deliver improvements in service and efficiency for our customers. If, however, our analysis is created based on incorrect assumptions, then this leads to all sorts of unpleasant outcomes!

Understanding and processing the data correctly to create an accurate model is therefore critical to our success. Effective understanding of the data, good preparation, and error checking are key to avoiding any nasty mistakes that will ultimately cost time and money.



We've set out the questions that should be asked when faced with a new logistics project to ensure you've got a clear picture of what's needed, along with some of our Top Tips to stop you from being caught out by the minor details.

## Understanding the product:

1. What are we distributing? How is it best defined? E.g. tonnage or physical unit? If using pallets, are they euro pallets, standard CHEP or bespoke? Is there pallet overhang? Can you get reliable averages of the stock or distribution units?
2. Does it need temperature controlled distribution or general warehousing and transport?

3. Measurements – do you have volume measurements or just width and length? Can you get height data if it is missing?
4. What is the value of the stock – is it high value or for medicinal or food purposes? If it is, then does it need controlled storage?
5. Is it a duty paid item? Is it hazardous? Does it need licencing? This will affect the pool of potential business partners.
6. How is the product best handled --- individually, cartons, roll cages, pallets, totes? Are there any specialist securing equipment or techniques required? What about the vehicle itself – walking floor, shelving, high cube trailers?
7. Is the product stackable? Regular or irregular shapes? How efficient is the space utilisation of the vehicle or storage facility? Is it worth considering bespoke vehicle, trailer or warehouse design to get the best out of the supply chain?

### **Understanding the supply chain:**

1. Is the product stackable? Irregular or regular shapes? How efficient is the space utilisation of the vehicle/storage facility going to be? Is it worth considering bespoke vehicle/trailer/warehouse design to get the best out of the supply chain?
2. What is the perception of how much of the business is currently Full Truck Load vs part loads and/or groupage?
3. And similarly, what is the perception of the proportion of the FTLs that are multidrop vs single drop currently? These “perspective” questions can act as a sense check to your initial analysis but also it gives you scope for considering possible supply chain efficiencies to be found.
4. What is the mechanism behind the route design currently? Is it developed using a transport system or by a transport planner who essentially creates the routes that have always been run?
5. What is the current vehicle utilisation according to the drivers/loaders?
6. How restricted are the deliveries in terms of specific times/days?

## 8 of my key tips for getting your data right:

1. Logic test it: does it look sensible based upon what you know already?
2. Thoroughly clean the data to eradicate hard coded spaces and general human error made during the input stage
3. Identify any missing delivery postcodes or town addresses
4. Check for variable type errors
5. Other common issues can be non-standard date formatting e.g. “dd/mm/yyyy” or “mm/dd/yyyy”. Checking this format can avoid disastrous mistakes
6. Does your volume or weight data have any tags coded into them?
7. Imperial or metric. Km or miles? Litres or gallons? Mixing up metric/imperial was enough to destroy the [Mars Climate Orbiter](#), so it can certainly disrupt your supply chain analysis!
8. Currency. Are any of the prices in the data quoted in different currency?

The aim of these questions is to know what we are moving;

- how it is loaded/unloaded/stored?
- how heavy and how big or small it is?
- where it is going; when it goes there?
- and the ultimate one – how much did it cost?

Whilst researching this data might seem arduous, it is well worth the investment of time, because it is the springboard to successful “what if” scenario modelling, and ultimately to better, more agile, leaner supply chains.

**Our team of experts at SpringTide have years of experience and have created multi-million pound savings for our clients through effective logistics management.**

**To find out how SpringTide can help your business,**

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