1. THE CONTEXT

Masticame is an "interproveedor" (integrated supplier) of Mercanona. As an integrated supplier (*inter proveedor* in Spanish), the company can only distribute their products to Mercanona, which is currently the first food retailer in the country in the national market. Masticame sells sweets (candies): chewing gum, assorted sweets and other chocolates. The range of products is quite limited since Mercanona only tries to offer its customers very high turnover products. Given Mercanona's values (its suppliers just work for Mecanona), Mercanona establishes very long-term relationships with its limited supply base based on trust, quality and always low prices. The renewal of products is rare, although, from time to time, Mercanona attempts to try new products. Masticame can select their suppliers and they can be international, but they must always be able to deliver the orders in less than a week.

Masticame was a small company before becoming the "specialist" of Mercanona for sweets. The core activity of the company is to:
- select the set of suppliers for all the products required,
- manage its supply,
- design the Stock-Keeping-Units (SKUs) and its packaging,
- manage production planning,
- organise the distribution activity to the Mercanona Distribution Centers (DC).

All these activities are carried out in production lines where it is usual to work with large batches (lot-size) given the little perishability of the products (2 years usually because of EU norms) and the important bottlenecks in some of the machines of the different lines.

Mercanona has a very stable model. It never offers discounts and limits the range of products offered in order to keep stable product sales and avoid the seasonality of demand. In fact, Mercanona tends to achieve a very stable demand and suppliers usually have a very stable workforce. For these reasons Mercanona can offer products with a constant quality at the lowest price. The company is demanding in terms of quality and the logistic costs should be reduced to a minimum.

2. A NEW SITUATION

January 30, 2017.

What a wonderful day! Top management of Mercanona had just accepted a new business line. Masticame had been selected to be the exclusive producer of sweet bags for Halloween. At 3 euros per unit, you (as a CEO of Masticame) must pack bags with 350 grams of sweets. Each bag would have approximately between 8 and 10 candy types in relatively equal parts. You have already contacted the sweet manufacturers (vendor pool) that have offered you some items. In the table below, a summary of the information about the products and the suppliers is given.

"Trick or Treat" case study

Part Nb.	Supplier	Location	gr. per Liters	kg. per bag	Bags per Box	Boxes per pallet	Pallet price [€]	Quality	Production Lead Time [days]
RC1	Gusug	Elche	575	3	8	24	600	C	3
RC2	Gusug	Elche	625	3	10	30	800	A	3
RC3	Gusug	Elche	650	3	6	40	850	B	3
RC4	La Abuela	Hellín	700	4	8	16	400	C	2
RC5	La Abuela	Hellín	725	4	8	40	800	A	2
RC6	La Abuela	Hellín	600	4	12	40	600	B	2
RC7	Seclud	Bocairent	800	3	10	16	300	B	4
RC8	Seclud	Bocairent	850	5	8	24	850	C	2
RC9	Seclud	Bocairent	875	5	6	20	420	A	2
RC10	Seclud	Bocairent	925	5	8	24	850	C	4
RC11	Seclud	Bocairent	950	4	6	32	600	B	4
RC12	Molan	Murcia	1000	5	8	16	500	C	1
RC13	Molan	Murcia	1000	5	10	12	600	B	1
RC14	Molan	Murcia	1000	5	6	24	650	C	1
RC15	Molan	Murcia	1000	5	6	24	750	B	2
RC16	jajibote	Yecla	400	2	5	13	300	A	7
RC17	jajibote	Yecla	715	3	8	25	800	A	2
RC18	jajibote	Yecla	400	2	5	13	300	A	7
RC19	TropLit	Castellón	715	3	8	25	800	A	2
RC20	TropLit	Castellón	820	7	5	40	900	C	1
RC21	TropLit	Castellón	650	3	12	30	750	A	4
RC22	TropLit	Castellón	550	8	9	25	700	B	3

Each sweet occupies a different volume for the same weight. The sweets come in pillow bags of different weights and dimensions. Therefore, when fitting them in each box there is a different number of bags. Consequently, the number of boxes per pallet is different. The price of each pallet is therefore different for each product. The quality of each candy has been assessed after laboratory testing and a panel of customers.

In summary, sweets are purchased in euro-pallet of boxes containing bags which contain the sweets. The purchase prices of the products are **ex-works**. Sending a truck to collect the candy costs Masticame around 350€ per displacement, 50€ per pick-up location and 0.40€ per km. The product or the candy has a preferred sale date of 4 months from its acquisition. To dispose of the packaging (plastic), 3 weeks supply lead time must be considered.

The sales forecast is that 10 days before Halloween, around 500 bags per store, which means around 500,000 bags in total, must be placed on the shelves of all the supermarkets.

At the moment, the company has just one production facility in Ribarroja del Turia. You have to send the 500,000 bags through the 7 distribution centers that the supermarket chain has in Spain. The product would be on the shelves on October 1. The logistic distribution centers of Mercanona handle the following percentages of sale:

Location of the Logistic Distribution Center	% of Sales Forecast per Center (respect with Total Sales)
Valencia	20%
Alicante	15%
Barcelona	20%
Madrid	15%
Sevilla	10%
León	10%
Málaga	10%

Sending a conventional truck (12.5 meters long) to any of these destinations from the facility in Valencia costs approximately 400€ (fixed cost) plus 0.35€ per km (variable cost). This price could be negotiated depending on the distances to the destinations. Any delivery the week after Halloween will be rejected by Mercanona.

The product to be sold will be on cardboard trays specially designed to hold (and exhibit) 30 bags of candy each. Each of these trays measures 600x400x200. At this moment, a design for the trays has been approved. The supply lead time is around 4 weeks. The tray supplier has indicated that each pallet will contain 600 folded trays.

In each sales product, the mixture of sweets could be obtained manually (we would have to define a process that was capable of supplying an adequate mixture).

3. YOUR MISSION

The plan requires a definition of the product to be made, a supply plan and a distribution plan. In a more detailed way, you must:
1. Depict the supply chain network of the focus firm
2. Find out the competitive strategy and the supply chain strategy
3. Complete the supply chain typology
4. Justify the drivers of the supply chain

Tips:
- To complete the supply chain typology, you can consult the following references (Fleischmann et al., 2005; Garcia-Sabater et al., 2012; Maheut et al., 2014, 2015; Maheut & Garcia-Sabater, 2013; Stadtler et al., 2012)
- To justify the competitive, SC strategy and drivers of the supply chain, you can consult (Chase et al., 2001; Chopra et al., 2013; Fleischmann et al., 2005)

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