

QDS Process: from Technology to Business Models

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INTRODUCTION

The transcendence of the QDS Process goes far beyond its outstanding technological proposal; **QDS is a clear case of breaking through an established business model** that rarely takes technology as a structural axis.

It is unusual for a technological proposal in search of productive or processing efficiency to **result in an authentic evolutionary mutation in the industry to which it belongs**. The importance of QDS Process goes beyond efficiency and progressive improvement of operations, directly impacting the meat industry and cured products. **QDS expands the limits of the “stuffed” product and its value unit, “the slice”,** and has a business impact beyond its transformation of meat products, providing a natural bridge between the two, the end customer and distribution channels (retail), opening up competitive spaces for new players in the traditional business model and adding new sectors to those already established.



1- QDS Process: First competitive advantages

A first reading of the QDS business model reveals two of the most significant advantages of the system: **QDS is a technology that provides for reducing operational costs, as well as investment in raw material and floorspace**; production that with a conventional system requires on average 2 to 3 months is obtained with QDS in only 48-72 hours, from a production room of very small size compared to the infrastructure required by traditional drying, eliminating process variability and ensuring the obtainment of the final result in all parameters of the “slice” product, both physiochemical (analytical parameters, weight, size, etc.), as well as microbiological (increased food safety) and organoleptic (sample tasting).

These two competitive advantages are so forceful that **the “danger” in regard to the value of QDS technology consists precisely in keeping the focus here, on the operational advantages and efficiency of the system, without making an in-depth reading of the opportunity**. The QDS system allows all players

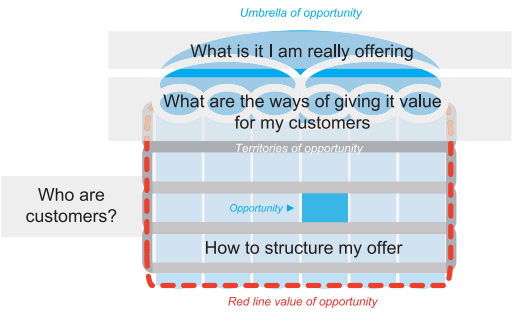
in the chain to cross the line and “go beyond” the established.

This vision is what prompted the CEO of METALQUIMIA, Josep Lagares, to present their technology to Loop Business Innovation in response to the question, **What is there beyond these two competitive advantages? Can the QDS system really broaden the business horizons of our customers in the global meat industry?**

2- QDS Process: Dimensioning opportunity

With a certain historical perspective, it can be said that **this is not the first time METALQUIMIA has proposed a breakthrough in the business model of meat producers**; they have done it before in a more organic and evolutionary way (in their commercial operations) with their technologies for the cooked ham and marinated products industry, where Metalquimia has been and continues to be a major player in structuring the sector. Today METALQUIMIA has become a global player and a driving force for expanding boundaries of the product and the meat business, being an **authentic specialist in technologies for “stretching protein”, a future strategic position for the food industry**.

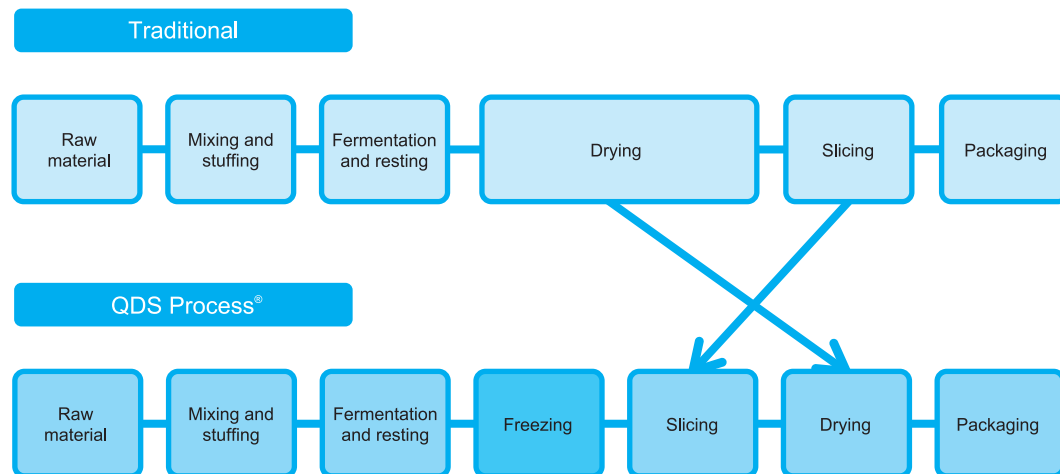
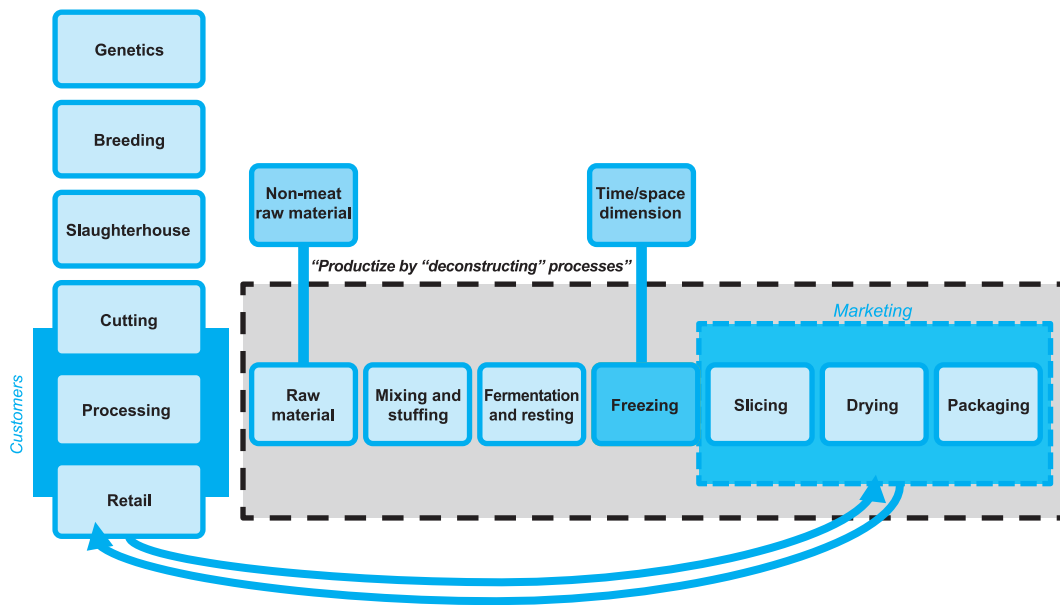
With the QDS Process it was a question of **analyzing all aspects of opportunity presented by the technology at the same moment and plane of time, and in this way planning its utilization and proactive expansion**. To go to the essence of QDS technology’s value, beyond its technological value, with the goal of calibrating the real scope of QDS opportunity and, with this as a base, dimensioning the field of opportunity generated, defining the “red line” of QDS credibility and, finally, defining the existing opportunities in this new field, paying special attention to identifying those levers of value that can accelerate the introduction of the system into the market and the players who complement this value.



2-1 Changes in the chain of meat industry players produced by QDS

For a correct dimensioning of opportunity, one must initially analyze **the logistic changes provoked by QDS, with regard to the conventional curing process, in the Chain of Value and in the relation among players**. As a result, various points of interest beyond the technology can be detected:

- A- **Change in relational order** between the slicing and drying processes and between the two chains.
- B- **Geographic and temporal proximity** (within the QDS opportunity) of the slicing / drying / packaging processes.
- C- **Introduction into the QDS process of a freezing phase** of the product to be sliced, that allows for (in contrast to the traditional process) “one stop in time” and in distance within the production process of the end product, due to the possibility of stocking and moving the intermediate product in a frozen state.
- D- **Reduction of the temporal distance and the process between production and retail industries**, providing direct communication between the two and introducing new marketing techniques in other sectors of the consumer industry.



2-2: Elements that give dimension to the QDS opportunity:

From the point of view of the **elements that give dimension to the QDS opportunity: Curing, slice and optimization**; the correct combination between them provides a vision of the system's "non- technological" opportunity, showing QDS to be an excellent **strategic tool for control of the meat processor's product portfolio, under a competitive management of the end product's commercial and technical diversity**:

A- Curing: QDS replicates the curing process in a **controlled manner**, beyond its physical location with less time / space.

B- Slice: The slice is, from the consumer and retail point of view, **the consumer unit and the unit of real value**, which maximizes its tangible and intangible value and is in itself and its variations a source of new product proposals.

C- Optimization: QDS allows for **balancing technical and commercial diversity within the context of**

available resources and provides for bringing the product and its process in line with the new norms and practices of modern marketing.

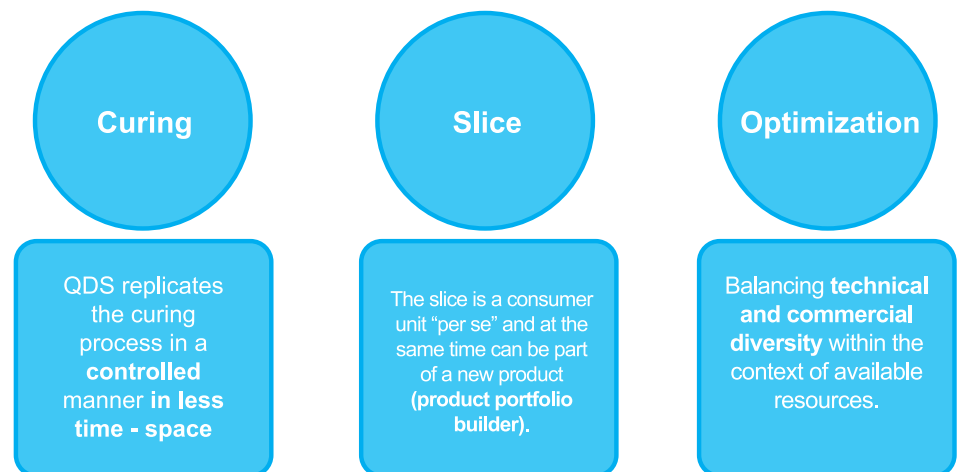
2-3: Analysis of the effect / potential of trends and macro trends in the meat industry:

A- From a technological point of view, the effects of trends taken into consideration for an analysis of the QDS opportunity were:

-Development of new technologies for freezing food products that improve sensory quality of the products.

-Perfection of techniques for the creation of "meat growth" as a way of increasing environmental efficiency in meat production and confronting the future protein shortage.

-Increase in "meat stretching" systems as a way of increasing production efficiency and protein consumption.



QDS is Product *Portfolio* Control, under a competitive management of technical and commercial diversity

B- From a market point of view, the effects of trends taken into consideration for an analysis of the QDS opportunity were:

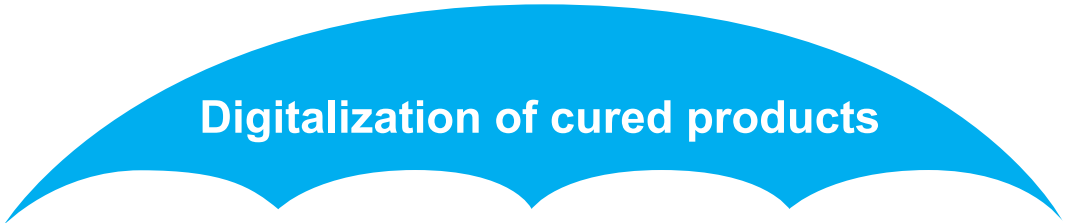
- Concentration of the market in large multinational groups that offer global product ranges.
- Conditioning of meat processors' purchasing decisions by the major retail groups.
- Constant reduction of margins due to retail pressures .
- Constant increase in commercial ranges of the same technical product.
- Consumer growth and commercialization of sliced products. Changing perception of the commodity meat product to finished product.

C- From a social change point of view, the effects of trends taken into consideration for an analysis of the QDS opportunity were:

- Growth in consumption of more sophisticated and healthier “ready to eat” products and snacks.
- Increased consumption of frozen meat, to the detriment of fresh meat.
- Increased consumption of ready and semi-ready meals, as a result of changing family roles.
- Increased consumption of functional and healthy products.
- Polarization between inexpensive and easy to consume products vs. sophisticated and artisanal products.
- Focus on the origin and traceability of production processes.



The QDS essence



3-QDS Process: Synthesis of opportunity and generator of New Business Models

A correct analysis and hybridization from a business model point of view of the three above-mentioned points (logistical changes, dimensioning elements and prospective of trends and macro trends) provides a vision of the potential at the heart of QDS business, embodied in the umbrella of opportunity: The Digitalization of Cured Products.

The “Digitalization of Cured Products” proposed by QDS provides flexibility to the production process to facilitate control, logistics and changes in launching new products, as a strategic factor in creating new Business Models: the ease of dissociating the process and the time of stuffed product production (intermediate product), from production of the slice (end product), makes it possible to manufacture the fermented stuffed products in one location and dry the slices in another country / continent; the short total processing time allows for adapting quickly to the result of commercial promotions; the absolute process control provides for ensuring all value and cost parameters of the slice (business retailers), etc...

The “Digitalization of Cured Products” proposed by QDS eliminates many of the limitations inherent in

current technology, which, together with the short process duration, also makes it possible to accelerate, up to unimagined limits, the development of new products focused on the market, simplifying logistics, increasing shelf life, strengthening presentation by adding value and facilitating the process of purchase and consumption, with a high potential for generating new product categories.