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Creation and implementation of collaborative business processes & solutions for international logistics, in a retail company

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ABSTRACT

The present dissertation was carried out as part of the Integrated Master of Industrial Engineering and Management and under the scope of Sonae's internship initiative, "Call for Solutions", more specifically at the International Logistics Department of Sonae SR.

The challenge proposed by Sonae was named "Create and implement Sonae's future business processes and solutions for International Logistics" and consisted in integrating a transformation programme team that was responsible for creating and implementing collaborative processes and solutions, supported on a Software as a Service (SaaS) solution, in collaboration with international partners worldwide.

This project emerged when a series of constraints were identified in every team of Sonae's International Logistics Department. In order to tackle these constraints, a supply chain collaborative solution has been developed and implemented, enabling the creation of a single point of contact and visibility for all supply chain stakeholders, available globally and at any time. This project has implied great organizational changes, since all import and export processes will be managed exclusively through this tool. In addition, entities such as suppliers, logistics service providers and customs brokers must be engaged on it and have an active role, in order to achieve a successful Roll-Out.

The results were very satisfactory: in 11 months, 63% of the total purchase orders for suppliers from India, Pakistan, Bangladesh and Sri Lanka regions, and 29%, for suppliers from China region, were placed through this tool, representing almost 1600 purchase orders. Regarding the supply chain entities that had to be engaged, the on-boarding rates were the following: (i) A total of 79 suppliers from India, Pakistan, Bangladesh and Sri Lanka were on-boarded, representing an on-boarding rate of 100%; (ii) 96 suppliers from China region were on-boarded, from a total of 418, representing an on-boarding rate of 23%; (iii) A total of 3 Logistics Service Providers/3PL were on-boarded, representing an on-boarding rate of 100%; (iv) A total of 2 Customs Brokers were on-boarded, representing an on-boarding rate of 100%;

KEYWORDS

Supply Chain, Supply Chain Integration, Logistics, Collaborative Platform, Change Management, International Trade

RESUMO

A presente dissertação foi realizada no âmbito do Mestrado Integrado em Engenharia e Gestão Industrial e desenvolvida sob a iniciativa de estágios "Call for Solutions", promovida pela Sonae, na Direção de Logística Internacional (DLI). O desafio proposto pela Sonae, no âmbito da referida iniciativa apresentou o tema "Create and implement Sonae's future business processes and solutions for International Logistics" e consistiu em integrar uma equipa de projeto, responsável por desenvolver e implementar novos processos de negócio e soluções, em colaboração com parceiros internacionais, necessários para a implementação de uma solução digital colaborativa, suportada num regime de "Software as a Service".

Este projeto surgiu quando uma série de ineficiências foram identificadas, conexas aos processos de importação e exportação da Sonae. Por forma a colmatar as necessidades identificadas, uma ferramenta digital tem sido desenvolvida e implementada na realidade operacional da Direção de Logística Internacional, que visa criar um ponto único de contacto e visibilidade, para as entidades presentes na cadeia de abastecimento. Este projeto implicou grandes alterações organizacionais e gestão da mudança, dado que todos os processos de importação e exportação serão, no futuro, geridos exclusivamente através desta nova solução. Adicionalmente, uma vez que a plataforma em questão é uma solução colaborativa, tornou-se premente envolver, de forma ativa, outras entidades da cadeia de abastecimento, tais como fornecedores, operadores logísticos e despachantes.

Os resultados foram muito satisfatórios: em 11 meses, 63% das ordens de compra de fornecedores de regiões como a India, Paquistão, Bangladesh e Sri Lanka, e 29% das ordens de compra de fornecedores da região da China, foram colocadas através desta plataforma. Relativamente ao envolvimento ativo de outras entidades da cadeia de abastecimento, as taxas de *on-boarding* foram as seguintes: (i) 100% dos fornecedores da região da India, Paquistão, Bangladesh e Sri Lanka foram *on-boarded* (de um total de 79 fornecedores) (ii) 23% dos fornecedores da região da China foram *on-boarded* (de um total de 418 fornecedores); (iii) 100% dos Operadores Logísticos foram *on-boarded* (de um total de 3 operadores logísticos); (iv) 100% dos Despachantes foram *on-boarded* (de um total de 2 entidades despachantes).

PALAVRAS-CHAVE

Cadeia de Abastecimento, Integração na Cadeia de Abastecimento, Logística, Plataforma Colaborativa, Gestão da Mudança, Comércio Internacional

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LIST OF ABBREVIATIONS AND ACRONYMS

3PL – 3rd Party Logistics

4PL – 4th Party Logistics

ASN – Advanced Shipping Notice

AWB – Airway Bill

B2B – Business to Business

B2C – Business to Consumer

BL – Bill of Lading

BU – Business Unit

CFS – Container Freight Station

CPFR – Collaborative Planning, Forecast and Replenishment

CPT – Carriage Paid To

CY – Container Yard

DDP – Delivery Duty Paid

DIY – Do It Yourself

DLI – Departamento Logística Internacional / International Logistics Department

DuPro – During Production

EDI – Electronic Data Interchange

ERP – Enterprise Resource Planning

EXW – Ex-Works

FCA – Free Carrier

FCL – Full Container Load

FMT – Flow Management Teams

FRI – Final Random Inspection

GTMS – Global Trade Management System

GTN – GT Nexus

IOW – Improve Our Work

IPBSL – India, Pakistan, Bangladesh and Sri Lanka

IPC/IPI - Initial Production Check /Initial Production Inspection

IT – Information Technology

LC – Letter of Credit

LCL – Less than Container Load

LS – Loading Supervision

MOT – Mode of Transport

PO – Purchase Order

POD – Port of Discharge

POL – Port of Loading

PP – Pre-Production

PTS – Plan-to-Ship

QC – Quality Control

ROW – Rest of the World

SaaS – Software as a Service

SCCt - Supply Chain Collaboration tools

SCES - Supply Chain Execution Systems

SCM – Supply Chain Management

SGPS – Sociedade Gestora Participações Sociais

SKU – Stock Keeping Unit

Sonae FS – Sonae Financial Services

Sonae IM – Sonae Investment Management

Sonae MC – Sonae Modelo-Continente

Sonae RP – Sonae Retail Properties

Sonae SR – Sonae Specialized Retail

UI – User Interface

VOC – Vendor On-boarding Champion

WFCI – Workflow Comércio Internacional

WIP – Work in Progress

1. INTRODUCTION

The present dissertation was carried out as part of the Integrated Master of Industrial Engineering and Management. The research project was developed under the scope of Sonae's internship initiative, "Call for Solutions", at the International Logistics Department of Sonae SR.

In this chapter, a theoretical framework is presented, regarding topics such as supply chain management and supply chain visibility, followed by the presentation of the developed project. Finally, the adopted methodology and the structure of this dissertation will be detailed.

1.1. Theoretical Context

According to Carvalho et al. (2012), Supply Chain Management involves planning and managing all the activities related to sourcing and procurement, conversion and all logistic activities. It is important to refer that supply chain management involves coordination and searches for the collaboration between chain or channel partners, whether they are suppliers, traders, service providers or customers. In sum, supply chain management integrates the components of supply and demand inside and in between companies (Carvalho et al., 2012). The goal is to achieve: (i) Less cross-company inefficiency; (ii) Increasing visibility of real demand and information sharing across the entire supply chain (eliminating the effect of amplifying demand variation – Bullwhip Effect); (iii) Reduce cycle times; (iv) Integrated planning of several organizations; (v) Align the production output with the demand; (vi) Bigger focus on satisfying the needs of end customers.

Suppliers, focal companies and customers are linked by information, materials and capital flows (Seuring & Müller, 2008). Today, companies tend to source products and materials off-shore, leading to longer lead times, not only because of geographical distance, but also because of procedures for import/export operations - preparing documentation (e.g. letters of credit), consolidating full container loads, customs clearance and other procedures (Christopher, Lowson, & Peck, 2004). However, to overcome this physical distance and complexification of the process, the evolution of technology enabled firms to become more integrated. According to Zhou & Benton (2007), new manufacturing technologies have been emerging and they influence the structure and the activities of the supply chain, especially web-based technologies

that enable information sharing and visibility between stakeholders to be much easier, improving the visibility of their suppliers' activities and operations, as well as their customers.

Barratt & Oke (2007) define supply chain visibility as the extent to which actors within a supply chain have access to and share information, which they consider as key or useful to their operations and that will be of mutual benefit. According to these authors, there are some benefits that arise from visibility, such as: (i) improved decision making, (ii) improved quality of products, (iii) improved planning capacities and (iv) improved responsiveness (Barratt & Oke, 2007). Regarding the improved decision-making, it is important to refer that data accuracy is a critical aspect that can affect the efficiency of operations and customer service (Sum, Yang, Ang, & Quek, 1995).

Stakeholders must ask themselves if the information that they are sharing is providing visibility. If it does, then the information can be incorporated in the decision-making processes of the receiver, allowing him to make a more informed decision, enabled by better visibility of the sender's current situation (Barratt & Oke, 2007).

Regarding the improved responsiveness, the term responsiveness in supply chain context is linked to the idea of agility on a supply chain. Hoek, Harrison, & Christopher (2001) suggest that an agile supply chain has the following characteristics: (i) market sensitive – it is closely connected to end-user trends, (ii) virtual – it relies on shared information across all supply chain partners, (iii) network-based – it gains flexibility by using the strengths of specialist players, (iv) process aligned – it is required to exist a high level of process alignment between the company, upstream and downstream partners in order to create a seamless connection (Christopher et al., 2004).

1.2. About the Project

With the challenge of market globalization in mind, a supply chain collaborative solution has been developed and implemented to help each of Sonae's business units work together with their suppliers, quality inspection agencies, logistic service providers and customs brokers, in order to gain better and earlier visibility of all relevant information about imports and exports processes – the name of this implementation project is Global Trade Management System (GTMS).

The goal of GTMS is to implement an innovative Software as a Service (SaaS) collaborative platform which will leverage the future processes being designed for Sonae's International

Logistics Department, and will enable the creation of a single point of contact and visibility for all supply chain stakeholders, available globally and 24/7.

The implementation approach set for this project was based on process maturity, business requirements and system impacts, and resulted in thee different releases, namely:

- **Release 1:** set to deliver visibility of milestones (supply chain events) of imports process for suppliers from regions such as China, India, Pakistan, Bangladesh and Sri Lanka (IPBSL) and Rest of the World (ROW);

- **Release 2:** will deliver an interface for collaboration with suppliers, i.e. the ability to, for a given purchase order (PO) collaborate with vendors to commonly define delivery dates and quantities to be delivered in each date, and other fields, at SKU level;

- **Release 3:** will delivery visibility of activities regarding exports process, and all inbound transactions that don't require placing a purchase order in company's ERP (e.g. samples, spare parts for electronics products).

A more detailed description about GTMS project will be addressed in chapter 3.3 Global Trade Management System (GTMS).

1.3. Research Methodology

Considering the scope of GTMS project and the research work that will be addressed on this dissertation, the most suited research strategy is Action-Research, since it is change-oriented and considers an active role of the practitioners, creating a collaborative environment between them and the researcher (O'Brien, 1998).

In order to reach the objectives, the following phases for the research project were defined:

i. **Literature Review:** to understand the scope of the tool being implemented and reach an effective change management, it is important to do an exhaustive research about similar cases that can help to create a successful implementation approach;

ii. **Analysis of the current situation:** a diagnosis of the current situation will be made. Here it is important to collect feedback from users and to track the performance of the tool implemented;

iii. **Definition of improvement measures:** after identifying critical issues of the process, approaches will be conceptualized and defined, in order to work around and to overcome the difficulties that the implementation of this new tool might present;

iv. **Implementation of new measures:** implementation of new solutions and approaches, created to overcome the obstacles and monitor if the solution suits users' needs;

v. **Analysis and discussion of the results:** analysis of the effectiveness of the tool's implementation, collecting again feedback from the users and using key performing indicators;

vi. **Learning Specifications:** analyse what were the most critical challenges and which solutions and approaches were effective, and build a framework of lessons learned that can help the implementation approach for Release 2 and 3.

This dissertation will mainly focus on Release 1's Pilot and Roll-Out stages in order to analyse the implementation process regarding the integration of all stakeholders and all the change management needed inside the company, with the goal of answering the following question:

What are the main challenges of implementing a collaborative platform to manage inbound logistics?

The steps to reach the answer to this question will be depend on:

- Analysing the impact of the new solution for the stakeholders (qualitative aspects);

- Giving all the necessary support to users (Sonae users, suppliers, service providers and others), so they can understand better the process flow on the platform – change management – and understand what are the most critical aspects for users;

- Tracking the performance of the tool, i.e., analyse if the requirements are being met;

- Designing new processes that will be under the scope of the project for next releases;

- Measuring the impact of this new tool for inbound logistic processes comparing with the tools that were in use before (key performance indicators).

After concluding these steps, the most critical aspects of the implementation process of this tool will be identified, allowing to define some lessons learned, that can be applied on next releases, in order to ease the process for all users.

1.4. Dissertation's Structure

This dissertation is divided in six chapters that aim to describe everything that this research project involved.

The first chapter is an introduction to the dissertation's scope: a theoretical context is made and a presentation of the project's goals. Lastly, the research methodology is detailed as well as the structure of the dissertation.

The second chapter consists in a literature review about four main topics that are relevant under the project's scope: Supply Chain Management, Logistics, International Trade, Visibility on Supply Chain and Organisational Change Management.

The third chapter is dedicated to the company where the development of this project took place. The history, company's milestones are described as well as the company's structure, finalizing with the description of the department where this project started. This chapter also presents a description of GTMS project and a critical analysis, that identifies the main issues related to the implementation of the project.

The fourth chapter presents the improvement measures that were adopted to tackle the main issues of the project's implementation.

The fifth chapter presents the results regarding the effectiveness of the solutions found, towards the evolution of the performance of the tool.

The sixth chapter presents the conclusion of this research work and some lessons learned and best practices that should be used on future releases of GTMS project.

2. LITERATURE REVIEW

In this chapter is addressed a literature review about four main topics that are relevant under Global Trade Management System project scope: Supply Chain Management, Logistics, International Trade and Visibility on Supply Chain. A review about Organisational Change Management is also made since this project is based on changing core business procedures, being fundamental to reach process alignment. Lastly, a critical analysis regarding the referred topics is addressed, to discuss the main topics of this literature review and today's reality regarding information sharing.

2.1. Supply Chain Management

Supply Chain Management (SCM) stands out as one of the main companies' strategies to achieve competitiveness (Gunasekaran & Ngai, 2004). Nowadays, companies are continuously trying to find solutions to improve their responsiveness and flexibility, endeavouring ways to improve their operations methods, strategy and technologies that impact on SCM (Gunasekaran & Ngai, 2004).

SCM can be defined as a "set of approaches" that is used to integrate supply chain stakeholders – suppliers, shippers, warehouses and stores, – so the final product is "produced and distributed, at the right quantities, to the right locations and at the right time", in order to satisfy the customers' requirements, while minimizing costs (Simchi-Levi, Kaminsky, & Simchi-Levi, 2003).

Lambert, Cooper, & Pagh (1998) suggest that SCM is the "integration of key business processes" from suppliers, that provide "products, services and information" to end-users, adding value "for customers and stakeholders".

The Council of Supply Chain Management Professionals (2017) states that Supply Chain Management involves "the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities". It is important to refer that supply chain management involves the coordination and searches for collaboration between chain or channel partners, whether they are suppliers, traders, service providers or customers (Council of Supply Chain Management Professionals, 2017). In sum, supply chain management integrates the components of supply and demand inside and in between companies (Council of Supply Chain Management Professionals, 2017).

According to Hesse & Rodrigue (2004), supply chain can be defined as a time and space planning of materials flow, between supply, production, distribution and consumption. The major stakeholders are suppliers, shippers, carriers/freight forwarders, retailers and customers, and each stakeholder has a particular importance and interest (D. J. Bowersox, Closs, & Stank, 2000).

According to Carvalho et al. (2012), Supply Chain Management has been gaining importance on business strategy, in attracting and retaining markets and customers, in increasing efficiency of operations management and companies' profitability. All this results from the combination of different factors that contribute to transform companies' environment in a more complex and demanding one (Carvalho et al., 2012). Among the factors that impact on supply chain management, these are the ones that stand out: (i) The globalization of economy due to an increasing volume of exports and imports in both European and Portuguese companies, leading to an increase of competitiveness and to a more flexible global purchasing policy; (ii) Stakeholders' requirements to simultaneously increase customer service levels and reduce costs, due to, among other things, the use of a single European currency and the growing importance of internet; (iii) The fast changes on markets' behaviour and segments; (iv) The fashion aspects that lead to greater demand volatility, shortening the product life cycle, as well as time-to-market (Carvalho et al., 2012).

Today, we face a new paradigm since companies present now several product lines (Crandall, Crandall, & Chen, 2014). Also, products have to be moved from a point of origin to a point of use – they can be moved to another organization, B2B, or to the final consumer, B2C – meaning that companies have more than one supply chain, serving different customers and buying from different suppliers (Crandall et al., 2014). This brings more complexity to the supply chain and, additionally, it is necessary to deal with different entities, implying different cultures, processes and policies (Crandall et al., 2014).

According to Carvalho et al. (2012), a successful implementation of supply chain management involves:

- Align organizational culture and remove obstacles;
- Clearly define the ownership of supply chain processes.

There are some examples of excellency on modern distribution, such as Sonae MC, Zara or Dell, that present agile supply chains, low stock levels and positive cash-flow cycles. They

benchmark the benefits that come from a proper supply chain management (Carvalho et al., 2012).

2.1.1. Agility and Responsiveness in Supply Chain

The 21st century global market requires to be "electronically connected and dynamic in nature", hence companies have a bigger need to be responsive and flexible, improving their agility in order "to meet the changing market requirements" (Gunasekaran & Ngai, 2004).

Responsiveness is the ability to manage a logistics system, in order to achieve quick responses, without compromising the service quality to the customer. The speed of response of a logistics system to a given event, maintaining the service quality standards, measures the response capacity of that system (Carvalho et al., 2012).

Hoek, Harrison, & Christopher (2001) suggest that an agile supply chain has the following characteristics: (i) market sensitive – it is closely connected to end-user trends; (ii) virtual – it relies on shared information across all supply chain partners; (iii) network-based – it gains flexibility by using the strengths of specialist players, (iv) process aligned – it is required to reach a high level of process alignment between the company, upstream and downstream partners, in order to create a seamless connection (Christopher et al., 2004).

2.1.2. Supply Chain in a Global Perspective

Modern logistics can be categorized by two factors: "flexibilization and globalization" (Hesse & Rodrigue, 2004).

Flexibilization is related to market-sensitive and demand-driven way of creating value on supply chain (Gertler, 1992). Nowadays, supply chain is not a concept related to one single company, but to a network of entities that play different roles (Hesse & Rodrigue, 2004).

Globalization is related to the expansion of companies' economy frame, which implies a more complex integration between entities and also managing a global network (Hesse & Rodrigue, 2004).

2.2. Logistics

According to the Council of Supply Chain Management Professionals (2017), Logistics represents a part of Supply Chain that is "responsible for planning, implementing and controlling the efficient and effective direct and inverse flow and the operations related to the

storage of goods, services and information related to the point of origin and consumption, in order to meet the customers' requirements".

One of the first concepts of Logistics was intrinsically related to military operations, but now is widely applied to other contexts such as manufacturing, distribution and consumption (Rodrigue & Slack, 2002). Originally, Logistics was an activity applied on different areas of a company – manufacturing, distribution, warehousing – however, the different activities were not integrated. Nowadays, we face a new paradigm where all these activities are integrated for a more effective management and for a more adequate demand responsiveness (Hesse & Rodrigue, 2004).

Logistics can be seen in a simpler way: as an "activity that stores, picks and delivers customer's orders at the lower cost possible", or in a more complex way: as a key strategic piece for companies' to achieve "a robust and reliable competitive advantage" (Crandall et al., 2014). Therefore, Logistics is involved on strategical, operational and tactical planning (Crandall et al., 2014).

Carvalho et al. (2012) state that Logistics can be analysed through different logics: (i) From a functional logic: Logistics presents itself as a set of activities to determine companies' requirements and specifications that go from storage, packaging, analysis and design of facilities locations (points for cargo consolidation, inventory centralization, storage, among others) to activities of physical distribution of goods, management of all information related to the order cycle and customer support, internal or external to the company; (ii) From a service logic: Logistics represent both physical and informational flow management, delivering the ability of providing a certain service in a given unit time, directed to the right customers, in the right quantity, with arrivals to the service system in the right time and provided with the right cost; (iii) From upstream to downstream point of view: this logic highlights the importance of sourcing, i.e., having one or more suppliers providing the right product; of establishing contracts – procurement, i.e., to place orders, then receive the planned physical responses, and, at last, storage the goods.

According to Hesse & Rodrigue (2004), there are two major functions that constitute logistics activities – physical distribution and materials management.

Physical distribution is related to all activities that involve the physical flow of goods from a point of manufacturing to a point of sale and utilization (McKinnon, 1983). More specifically, this function includes "transportation services", e.g. air freight, sea freight, trucking, pipelines,

and "transhipment and warehousing services", e.g. inventory management, storage, "trade, wholesale and retail" (Hesse & Rodrigue, 2004).

Materials management is related to all activities that involve manufacturing of products in all phases of production, on a supply chain (Hesse & Rodrigue, 2004). This function includes activities such as "production planning, demand forecasting, purchasing and inventory management" (Hesse & Rodrigue, 2004). This function deals with a wide set of products, e.g. raw materials, semi-finished goods, packaging, and also includes the last phase of a product's life cycle, i.e., recycling obsolete or discarded goods (Hesse & Rodrigue, 2004).

However, if all supply chain entities are closely integrated, it becomes more difficult to make a clear distinction between physical distribution and materials management since the responsibility for transport, handling and warehousing and distribution channels, that begin on suppliers and ends on consumers, are shared between suppliers, "wholesalers and retailers" (McKinnon, 1983).

Logistics efficiency is a driver that impacts directly on business result and, considering the actual competitive economic environment, companies must use all its functions to increase their growing (Jaffeux & Wieser, 2012).

A first approach to modernize logistics was related to automate manufacturing processes, in order to have less waste and produce more efficiently (Hesse & Rodrigue, 2004). However, a new approach to modernize logistics is related to an increasing supply chain integration between entities (Hesse & Rodrigue, 2004). This leads to a growing number of companies and locations being connected by "material flows and value chains" (Hesse & Rodrigue, 2004). To run their business in an efficient and competitive way, companies must establish relationships that are achieved by contracting, collaboration or competition (Hesse & Rodrigue, 2004).

Transportation and Transportation Management

Transportation is one of the main components of logistics, playing a major role on companies' management, from strategic to operational decisions (Jaffeux & Wieser, 2012). Transport performance is a critical element, since it is responsible for maintaining the availability of products through the flexibility and reliability of its operation (Jaffeux & Wieser, 2012). In today's economic environment, companies tend to produce offshore and that impacts directly on transportation management. Hence, a trade-off must be reached, considering economies of scale in manufacturing and the bigger transport distances as well as their consequences – bigger

lead times, less reliability on products quality and handling, service quality and transport costs (Jaffeux & Wieser, 2012).

There has been a significant growth of freight transport not only due to the improved networks of transportation but also, containerization allowed the appearance of economies of scale using consolidation, i.e., consolidating different cargos from different origins but with the same type of commodities, in standard containers (Hesse & Rodrigue, 2004).

There is a new perspective on freight distribution: the productivity that is obtained in manufacturing is progressively deriving from a new approach of gaining more efficiency at terminals instead of reaching efficiency on modes of transportation (Rodrigue, 1999). The new tendency on logistics functions is the centralization of certain activities on strategic points such as hubs (Trip & Bontekoning, 2002). This increase of efficiency at terminals meets the new tendency regarding the emphasis given to international trade, production and distribution networks (Slack, 2008). Today, companies' facility locations are strategically chosen to be near of points of access of regional and long-distance gateways and products' flows are conducted through major points of access, e.g., major ports and airports and road's intersections with access to supplier's market (Hesse & Rodrigue, 2004). This also allowed a big improvement, making freight flows more seamless at terminals (Rodrigue, 1999).

Containerization is a very important component of transportation and transportation management (Hesse & Rodrigue, 2004). Containers allowed the existence of a standard storage unit in Logistics, which brought flexibility to manufacturing systems (Hesse & Rodrigue, 2004). In addition, the development of infrastructures that enable a more efficient transportation, e.g. terminals, airports and highways, was a key element for the evolution of Logistics (Hesse & Rodrigue, 2004).

There are five different modes of transportation considered on international transportation: sea, air, road, rail and pipelines (Carvalho et al., 2012). These modes of transport can be either used independently or combined.

2.3. International Trade

International Trade has been increasingly growing since 1970, due to factors that mainly contribute to the globalization of production – land, work and capital (Rodrigue, 2012). Nowadays, the Asiatic southeast is the gravity centre of global manufacturing, especially China

(Rodrigue, 2012). As for the consumption tendency, this one is more focused on Europe, USA, South Chorea and Japan (Rodrigue, 2012).

Due to the growing internationalization of trade, there was a need of restructuring the global distribution and transportation networks (Creazza, Dallari, & Melacini, 2010). Containerization itself also triggered a restructuring on this area, with maritime transportation of containers becoming dominant, despite the long transit times (Creazza et al., 2010).

As said before, companies are tending to produce and source offshore, on new geographies, and freight distribution has been accompanying this geography's changes (Hesse & Rodrigue, 2004). Geographies such as Pacific Asia have been emerging with a large amount of points of connection, e.g., "Hong Kong, Shanghai and Singapore", and these hubs contain, at the moment, the bigger ports in the world (Hesse & Rodrigue, 2004). The countries that are present on Asia's geographies are also mostly developing countries with new manufacturing opportunities and cost advantages (Hesse & Rodrigue, 2004).

Terminals have also evolved to accommodate and enable these new tendencies on flows: in regards to maritime flow, ports have now a bigger capacity and became more specialized based on the global routes of trade, with main ports of loading and discharge, such as the port of Rotterdam and Hong Kong, and transhipment ports such as the port of Singapore or Dubai (Rodrigue, 2012). In regards to air flow, there was a need to create specialized airports only for cargo transportation, airports started to be a point of connection, e.g. Dubai for the Pacific Asia to Western Europe route (Rodrigue, 2012).

All this transactional environment must be regulated by laws and policies and this represents a "major factor of influence" (Hesse & Rodrigue, 2004).

There is a set of rules that coordinate and standardize the transactions under the scope of international trade, developed by the International Chamber of Commerce, called Incoterms (Eldovi, Vukasinovi, Tesi, & Bijeli, 2015). Incoterms determine the responsibility, cost allocation and risk that has to be assumed by each part – buyer and seller – on a transaction under contractual trade terms (Eldovi et al., 2015).

There are eleven different incoterms divided into four groups according to the starting letter – E*, F*, C* and D* (Eldovi et al., 2015). Incoterms are also divided according to the mode of transport – all types of transport vs. sea transport (Eldovi et al., 2015).

Ex-Works (EXW) is the incoterm that places the maximum responsibility on the buyer since they must arrange everything related to the shipment of the cargo (Eldovi et al., 2015). Seller conveys the responsibility to the buyer "once they have made the goods available to the buyer at their premises or another designated place (…) duty-free and not loaded on any means of transportation" (Eldovi et al., 2015).

Free Carrier (FCA) incoterm engages the duty to the seller of delivering the goods at a place nominated by the buyer (Eldovi et al., 2015). This incoterm is equally advantageous for both parts, buyer and seller, since their duties depend on the mode of transport and the place of delivery chosen to handover the goods (Eldovi et al., 2015). If the place of delivery is at seller's facilities, the cargo must be loaded on to a carrier chosen by the buyer (Eldovi et al., 2015). The place nominated to handover the goods must be clear for both parts and this is critical since it determines the responsibility in case goods become lost or damaged (Eldovi et al., 2015). Upon loading the cargo, the responsibility belongs to the buyer (Eldovi et al., 2015).

Carriage Paid To (CPT) incoterm requires that the seller delivers the goods to a carrier nominated by both parts, so the buyer is responsible for all the risks and costs, after the goods being delivered (Eldovi et al., 2015).

Delivered Duty Paid (DDP) requires that the seller delivers the goods at a nominated destination and has to pay for all import fees, except costs related to unloading the cargo at destination (Eldovi et al., 2015). This incoterm contrasts with EXW since the maximum responsibility is placed on the seller (Eldovi et al., 2015).

Table 1 summarizes the terms of delivery and respective "breaking points" of responsibility.

Table 1 - Incoterms and Respective Terms of Delivery

Incoterms	EXW	FCA	FAS	FOB	CFR	CIF	CPT	CIP	DAP	DAT	DDP
MOT	**All**	**All**	**Sea**	**Sea**	**Sea**	**Sea**	**All**	**All**	**All**	**All**	**All**
Breaking Point	Named Place	Named Place	Named port of dest	Named port of dest.	Named port of dest.	Named port of dest.	Named port of dest.	Named port of dest.	Named Place	Named Terminal	Named Place
Warehouse at point of origin	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER
Warehouse labour charge at origin	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER
Export Packing	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER
Loading at point of origin	BUYER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER

Inland freight	BUYER	BUYER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER
Port receiving charges	BUYER	BUYER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER
Forwarding fees	BUYER	BUYER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER
Loading on ocean carrier	BUYER	BUYER	BUYER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER
Ocean freight	BUYER	BUYER	BUYER	BUYER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER	SELLER
Charges in foreign port	BUYER	BUYER	BUYER	BUYER	BUYER	BUYER	SELLER	SELLER	SELLER	SELLER	SELLER
Delivery charges to final destination	BUYER	BUYER	BUYER	BUYER	BUYER	BUYER	BUYER	BUYER	SELLER	SELLER	SELLER
Customs duties and taxes abroad	BUYER	BUYER	BUYER	BUYER	BUYER	BUYER	BUYER	BUYER	BUYER	BUYER	SELLER

Source: Eldovi, Vukasinovi, Tesi, & Bijeli (2015)

There are certain criteria that must be taken into account when choosing an incoterm: volume shipped, expertise regarding international trade operations and knowledge about legal requirements on the places of loading and discharge of the cargo.

Outsourcing

The idea of "shared and synergistic advantages" served to strengthen the significance of relationships between companies collaborating in a supply chain (D. J. Bowersox, Close, & Cooper, 2002). The concept of an extended company empowered visions of greater competence, effectiveness and importance since this would imply data sharing, a collaborated planning and most important, an operational specialization between supply chain entities (D. J. Bowersox et al., 2002).

Supply chain is mainly controlled by companies that are related to retail, and due to a big volume of purchase orders, they outsource transportation services to 3rd Party Logistics (3PL) firms, freight forwarders, that are responsible for "trading and brokering orders", to carriers or shipping companies that assure the transportation worldwide (Hesse & Rodrigue, 2004). Since there is a big offer on logistics services, these distribution companies must provide a high-quality service and at low cost, creating a very competitive environment (Hesse & Rodrigue, 2004).

The self-regulating market of transportation triggered the appearance of logistics service providers and also enabled the expansion of the scope of services available and dedicated to supply chain activities (Hesse & Rodrigue, 2004). This contributed to the concept of integrated supply chain, boosting "the value of core-competence specialization", identifying the main challenges, while operating and creating a virtual supply chain (Hesse & Rodrigue, 2004).

A 3PL is responsible for making a space reservation, for doing negotiation with carriers (2nd Party Logistics, the entity who ensures the physical transportation of the cargo), who consolidates different cargos from different clients to maximize efficiently the available capacity and also build economies of scale in order to provide a more competitive price (Crandall et al., 2014). 3PL also take care of all the documentation that is necessary for the international transaction, e.g.: customs clearance documents, transportation documents - bill of lading (BL) or airway bill (AWB) -, and even letters of credit, used as a payment method (Crandall et al., 2014).

Most 3PL don't own the transported cargo, neither the means used for the transportation, being only responsible for structuring the supply chain and logistics operations of the customer (Crandall et al., 2014). However, there are 3PL that own transportation freights, warehouses and even terminals offering a complete and end-to-end service to answer to all customer's necessities (Crandall et al., 2014).

A 4th Party Logistics (4PL) exceeds the functions of a 3PL, taking a step further: adding value through strategic management (Crandall et al., 2014). 4PL are involved in designing, map and development of customers' supply chain and they usually have integrated systems with their customers, providing the opportunity to manage more efficiently and to optimize their supply chain (Crandall et al., 2014).

2.4. Visibility on Supply Chain

Suppliers, focal companies and customers are linked by information, materials and capital flows (Seuring & Müller, 2008).

Today, companies tend to source products and materials off-shore, leading to longer lead times, not only due to the distance, but also due to procedures for import/export operations - preparing documentation (e.g. letters of credit, packing lists, bill of lading), consolidating full container loads, customs clearance and other procedures (Christopher et al., 2004).

However, to overcome this physical distance and complexification of the process, the evolution of technology enabled firms to become more integrated. According to Zhou & Benton (2007), new manufacturing technologies have been emerging and they influence the structure and the activities of the supply chain, especially the case of web-based technologies that enables information sharing and visibility between stakeholders to be much easier, improving the visibility of their suppliers' activities and operations as well as their customers.

Barratt & Oke (2007) define supply chain visibility as the extent to which actors within a supply chain have access to or share information, which they consider as key or useful to their operations and will be of mutual benefit.

According to Barratt & Oke (2007) there are some benefits that arise from visibility, such as: (i) improved decision making; (ii) improved quality of products; (iii) improved planning capacities and (iv) improved responsiveness. Regarding the improved decision making, it is important to refer that data accuracy is a critical aspect that can affect the efficiency of operations and customer service (Sum et al., 1995).

Stakeholders must ask themselves if the information that they are sharing is providing visibility. If it does, then the information can be incorporated on decision-making processes of the receiver, allowing him to make a more informed decisions, enabled by better visibility of sender's current situation (Barratt & Oke, 2007).

Only with the development and implementation of web-based technologies and information sharing technologies did this reality started to gain form (Hesse & Rodrigue, 2004). These technologies allow an integrated planning and management of information between entities, enabling the development of new manufacturing and distribution systems possible (Abernathy, Dunlop, Hammond, & Weil, 2000). With this, the "two ends of the assembly line became integrated into the logistics of supply chain" (Hesse & Rodrigue, 2004).

Process alignment is critical and it can be achieved by web-based technologies, allowing different entities to be connected, even if their ERP is quite different. So, organizations can be geographically dispersed and independent but connected by one system (Christopher et al., 2004). Thereby, a virtual team is created, achieving a high degree of synchronization, where information is shared in real time (Christopher et al., 2004).

2.4.1. Information Requirements

The increasing competition and market volatility is often pointed out by the authors as one of the major challenges for company's managers so, in the current global context, information has become a critical resource, supporting the decision-making process and establishing sustainable competitive advantages (Carvalho et al., 2012).

For information to be considered a strategic resource, source of benefit and competitive differentiation, it must meet some fundamental requirements so it can satisfy the needs of its users and support the supply chain's processes and activities (Carvalho et al., 2012). Identifying those information requirements presumes a previous determination of information needs that support the decision-making process (Carvalho et al., 2012).

D. Bowersox & Closs (1996) compiled six principles that information must incorporate when designing or evaluating logistical application systems. The six principles are: (i) Availability: by availability is understood ready and consistent information, of quick access and update, whenever an immediate response is required, regardless of where the source of information is located or where the information user is, whether is the manager or the customer, contributing to the reduction of uncertainty, both at operational and planning levels. (ii) Accuracy: The information provided must be accurate, i.e., exact, correct and reliable; This will also contribute to a reduction of uncertainty. Accurate information means that the values that are being reported by the information system correspond to the physical count, incorporating stock availability and ongoing activity. The greater the consistency of information, the less need to build security stocks to cope with unforeseen situations. (iii) Timeliness: Information must be timely, i.e., it must eliminate, as far as possible, the time gap in which the activity physically takes place and it becomes visible on the information system. Again, timely information can reduce uncertainty by facilitating the identification of issues, allowing a greater control as well as the adoption of corrective measures or minimizing losses and, consequently, reducing the needs of inventory and increasing the precision of the decision-making process. (iv) Exception's management: Regarding exceptions management, information should highlight problematic situations such as orders placed with unusual quantities, products with little or no stock, delayed shipments, or opportunities for service improvement or cost reduction, e.g., decrease of operational productivity, which require more attention or need for intervention or decision by the manager, freeing them from repetitive, time-consuming activities. (v) Flexibility: The information must be flexible, capable of satisfying users' needs and customers' requirements, e.g., in terms of aggregation, detail or recipients, and useful to follow-up the company's growth without involving increased financial investments or implementation/adaptation costs. (vi) Appropriate

format: It is important that information flows with an appropriate format, containing necessary information for the purposes for which it is intended, following the appropriate structure and support, facilitating consultation and decision-making.

The exchange of information can be facilitated by systems and technologies that aim to ensure the necessary information for the coordination of members of the chain, providing visibility to the supply chain and conducting to a better service for the customer (Carvalho et al., 2012).

A free, timely and accurate share of information across the supply chain has been widely discussed as a critical success factor. Basic communication tools are considered essential for the establishment and development of relationships and lasting agreements (D. Bowersox & Closs, 1996).

2.4.2. IT Development for Dynamic Supply Chain Management

In a context of intensified global competition, greater liberalization and transparency of the markets, with significant advances in IT development, the strategic focus of supply chain management has been shifting from previous issues related to production efficiency, production services and high-quality services for client-oriented synchronization approaches between partners, which implies the existence of collaboration between various functional areas, within and between members of the chain (Carvalho et al., 2012).

The need to collaborate in a supply chain, within the organization itself and with external partners, to manage the relationship with customers, achieving the necessary flexibility to respond to changes in demand and reduce lost sales, being able to match demand to supply with less investment in inventory, keeping the organization as lean as possible, are concrete problems that require solutions far beyond the advantages allowed by optimization, and which have justified the emergence of new tools to support collaborative processes (Carvalho et al., 2012).

A flexible behaviour is obtained on supply chain since there is the possibility of exchanging information near real-time, enabled by new technologies (Hesse & Rodrigue, 2004). Companies are now able to order from the point of sale, adjusting their inventories to meet demand in a more accurate way, eliminating redundancy (Hesse & Rodrigue, 2004). Technologies such as Electronic Data Interchange (EDI) are the new sources of productivity increase on the last years (Hesse & Rodrigue, 2004), that allowed an "automated product flow in distribution and warehouses" and enabled the appearance of track and trace systems.

Collaboration management between multiple partners, involving different types of organizations, with their own resources and goals, translates into an interdependence of multi-step processes that imply real-time cooperation in operations and decision making, between different tasks, functional areas and organizational fronts, in order to allow an adequate response to challenges, resulting from an environment of uncertainty and variability (Carvalho et al., 2012).

According to Gunasekaran & Ngai (2004), supply chain management highlights the long-term benefit of information sharing and collaboration between supply chain parties, and this is enabled by the application of IT. Companies must make large investments to adapt their processes and achieve an "IT-enabled supply chain", mapping, redesigning and implementing new business processes (Motwani, Madan, & Gunasekaran, 2000). The implementation of IT on companies requires a project management approach to support all the changes that this process entails, i.e., to define new business procedures, assist on technical questions and ensure change management (Gunasekaran & Ngai, 2004).

Table 2 presents some of the main capabilities of IT that are useful for supply chain management:

Table 2 - Main Capabilities of IT on Supply Chain context

IT Capabilities	Organizational Impact
Transactional	IT converts non-structured processes in automatic operations
Geographical	IT easily and quickly transfers information over large distances, creating processes that are independent of the geographical situation
Analytical	IT brings analytical and complex methods to support the processes
Informational	IT provides big volumes of detailed information useful for the processes
Sequential	IT allows changes to a sequence of tasks in a process, often allowing multiple tasks to be performed simultaneously
Knowledge management	IT allows to store and disseminate knowledge and experiences to improve processes
Tracking	IT allows the tracking of tasks' status
Disintermediation	IT allows you to link two entities within a process that otherwise would be communicating through intermediaries

Source: Carvalho et al. (2012)

To overcome the complexity of systems that provide connection between buyer and supplier, there has been majors developments on communication and information technologies using features such as EDI and internet (Gunasekaran & Ngai, 2004). This new paradigm motivated companies to go for online communications using internet, enriching the communications

between the stakeholders with "greater interactivity" (Watson, Akselsen, & Pitt, 1998). "Internet-based EDI" enabled a link through all the suppliers and the "benefit of 100% EDI compliance for all the supply chain members" (Johnston & Mak, 2000). The disadvantage of EDI is that it does not "provide high-level information and knowledge exchange for high-level business collaboration" (Jain, Wadhwa, & Deshmukh, 2009).

The Supply Chain Execution Systems (SCES) bridge the gap between the preparation phase of the planning decisions and the final implementation of those decisions (Carvalho et al., 2012). The modules cover the same processes, but in a smaller horizon, short term, and usually, in real time. SCES deal with material handling, transmission of orders to suppliers, transportation (including track & trace) and online response to customer requests. If necessary, they enrich the supply chain planning instructions with additional details, but above all, monitor and control the implementation of decisions made by the supply chain planning (Carvalho et al., 2012).

The Supply Chain Collaboration Support tools, SCCt, aim to improve supply chain planning base functionalities, providing the possibility of internal and external collaboration based on web solutions, consolidating information from several functional areas and external chain members, in real time, on processes related to Collaborative, Planning, Forecast and Replenishment (CPFR) type (Carvalho et al., 2012). CPFR is helping companies to achieve a collaborative forecast with inputs of other partners, obtaining an improvement on customer relations, with improved product lifecycles (Jain et al., 2009).

2.5. Organisational Change Management

Change management consists on "the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers" (Moran & Brightman, 2000).

According to Burnes (2004), change is always present in organisations, at "operational and strategic level", so it plays a very significant role on them. An organisation must be able to identify their place in the future as well as everything that is required to do in order to get there (Burnes, 2004).

In the current business environment, companies face a much faster pace of change, faster than ever before, and this change is triggered both by internal and external factors and it "comes in all shapes, forms and sizes", affecting all organisations, with no exception (Todnem, 2005).

Change can be defined as "discontinuous" when it is "marked by rapid shifts in either strategy, structure or culture, or in all three" (Grundy, 1994).

An approach that tries to explain how to implement organisational change management is the so-called "planned approach" (Elrod & Tippett, 2002). This approach highlights "the importance of understanding the different states which an organisation will have to go through in order to move from an unsatisfactory state to an identified desired state" (Elrod & Tippett, 2002).

There are three steps that must be taken into account for a successful change management: the first is related to "unfreezing the present level", the second one is about "moving to the new level" and the third is about "refreezing this new level", i.e., consolidate the changes (Elrod & Tippett, 2002). So, change management is about identifying the need to change "behaviour, structures, processes and cultures" and adopt and consolidate practices more adapted to the companies' reality (Bamford & Forrester, 2003).

2.6. Literature Review's Critical Analysis

It is possible to affirm that supply chain management searches to establish collaboration between stakeholders (suppliers, traders, service providers or customers) in order to achieve a better coordination and efficiency on operations (Council of Supply Chain Management Professionals, 2017). More than ever, it is required for the global market to be dynamic and to stay electronically connected, in order to achieve better responsiveness and flexibility "to meet the changing market requirements" (Gunasekaran & Ngai, 2004). Nowadays, there is a new paradigm that states that supply chain is a network of entities that play different roles, and their respective supply chains cannot be dissociated (Hesse & Rodrigue, 2004). Hence, this implies a new approach to modernize logistics mechanisms to achieve an increasing supply chain integration between entities (Hesse & Rodrigue, 2004). This integration between supply chain entities empowers visions of greater competence, effectiveness and importance, since this implies a collaborated planning (D. J. Bowersox et al., 2002).

Additionally, companies tend to manufacture their products offshore, leading to longer distances and lead times, and to outsource their operations to specialized entities (Christopher et al., 2004). To overcome this physical distance and complexification of the process, the evolution of technology enables firms to become more integrated through web-based technologies, that allow information sharing and visibility between stakeholders (Zhou & Benton, 2007).

In this context, it is important to refer that the potential of internet has been discovered by companies and they are using it to create more efficient "transmission protocols for machine-to-machine communication of the same high-frequency data now handled by traditional electronic data interchange" (Jain et al., 2009). While it is relatively easy to apply these systems to an inter-organizational supply chain with a central planning unit, decentralized planning can pose additional challenges and raise questions about the availability of the data needed for planning (Carvalho et al., 2012).

These information systems related to supply chain management require lots of data input and the sources of this input can be automatic - "software applications, control systems, bar code readers, sensors, analytical instruments" – or manual (Jain et al., 2009). In an ideal scenario, data would be input on a system only one time and would be available for every information system (Jain et al., 2009).

However, according to Jain et al. (2009), there is evidence that we are not reaching this ideal scenario and it isn't evolving as fast as supply chain's dynamics, since:

- Manual data input is still widely used, even when companies have the technology available. So, information is being reinput in different points of the supply chain, unnecessarily;

- There is still a need for people to maintain and update supply chain informational flows as well as ensure them;

- Companies still work with estimated data instead of actual data when determining their production, materials and expedition planning;

- A big number of companies still work "without essential data".

To overcome these difficulties related to information sharing, it is important to change companies' mind-set on information sharing and information gathering. Companies still have some reservations about it, since they think it will compromise their business, and it becomes imperative to understand that sharing information is what provides better efficiency on operations. Data quality is also crucial on this process and companies must define the most adequate metrics and processes to gather the necessary data. Lastly, companies must evaluate their technologic solutions and always evolve to have a single source of "truth", that does not require manual inputs or re-inputs of information, since this presents a bigger risk of error.

What GTMS aims is to reach this level of visibility and transparency on operations for import and export processes, sharing all the necessary information with the respective partners, without any need of re-inputs. Once the information is available on the system, there will not be any replicated information, input by another entity.

There are some solutions of track and trace available on the market, many of them developed by Logistic Service Providers such as FedEx, Kuehne + Nagel or Huub but those don't address Sonae's specific needs (FedEx, 2018; Huub, 2018; Kuehne+Nagel, 2018). It is important to refer that GTMS project addresses not only import and export processes visibility but also the development of a platform for negotiation with suppliers, integrated with Sonae's ERP, and the referred solutions don't offer the possibility of having all these functionalities in an unique platform.

3. ANALYSIS OF THE CURRENT SITUATION

This chapter is dedicated to the company's presentation where the project was carried out, as well as GTMS project's presentation and a critical analysis of it. The following topics will be addressed: about the company, company's organisational structure, Global Trade Management System (GTMS), GTMS Implementation Approach, Release 1 and Critical Analysis.

3.1. About the Company

Sonae SGPS S.A. is a Portuguese multinational company that presents "a diversified portfolio of businesses in retail, financial services, technology, shopping centres and telecommunications" (SONAE, 2016). Sonae is present in 86 countries and has more than 40.000 employees, presenting itself as one of the biggest employers in Portugal (SONAE, 2016).

Founded on 18th of August, 1959 by businessman Afonso Pinto de Magalhães, Sonae – Sociedade Nacional de Estratificados – initiated its activity focused on the area of processed woods. After the death of Pinto de Magalhães, engineer Belmiro de Azevedo took over the leadership of the company and from the 80's on, Sonae started investing on the diversification of its business segments. In 1983, it is established the holding: Sonae Investimentos, SGPS (Sociedade Gestora de Participações Sociais) S.A. and its entrance in the capital market.

A big milestone on Sonae's history is the opening of the first hypermarket in 1985, named "Continente". This allowed the company to branch out beyond the industrial context as well as their entrance in the retail area – firstly related to food, later related to specialized retail.

In the 90's, Sonae started to affirm itself in specialized retail through brands such as Worten (electronics), Modalfa (casual clothing), Maxmat (DIY), Sportzone (sports clothing and accessories), Max Office (office supplies) and others.

In 2007, Belmiro de Azevedo's son, Paulo de Azevedo, assumed the leadership of the group (SONAE, 2017).

Sonae is a Portuguese retail company that commits itself to following a policy of management excellence, seeking demanding objectives of quality, productivity, innovation, and competitiveness, thus accepting the challenge of market globalization (Anderson & Goffee, 2001).

In terms of strategy, it is undoubtedly a goal of the group to build an international dimension. Sonae has been investing in external markets and sees it as a great growing opportunity.

3.2. Company's Organisational Structure

Sonae is divided into eight and very different functional groups:

- **Sonae MC**

Sonae MC (Modelo-Continente) is related to Food Retail, Health and Wellness. Some of the brands that are under the business scope of Sonae MC are present on Figure 1.

Figure 1 - Brands under Sonae MC Business Scope

- **Sonae SR**

Sonae SR (Specialized Retail) is related to Sonae's specialized retail segment regarding sports and fashion. Some of the brands that are under the business scope of Sonae SR are present on Figure 2.

Figure 2 - Brands under Sonae SR business scope

- **Worten**

Worten is related to Sonae's electronics business segment. Some of the brands that are under Worten's business scope are present on Figure 3.

Figure 3 - Brands under Worten's business scope

- **Sonae RP**

Sonae RP (Retail Properties) is responsible for the effective management of Sonae's real estate portfolio.

- **Sonae FS**

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Sonae FS (Financial Services) is responsible for providing financial services to customers, such as "Cartão Dá" and "Cartão Universo", that are available on Sonae's stores and hypermarkets.

- **Sonae IM**

Sonae IM (Investment Management) is responsible for managing a portfolio of companies that are linked to retail.

- **Sonae Sierra**

Sonae Sierra represents the international property company and focus on serving the necessities of real estate investors.

- **NOS**

NOS is responsible for offering a range of services related to telecommunications and entertainment (TV, internet and phone).

3.2.1. International Logistics Department Organisational Structure

The International Logistics Department (DLI) is responsible for managing inbound and outbound flows, under the scope of international trade, for Sonae SR, Sonae MC and Worten. This department is divided in four areas that ensure the flow (physical, documentation and informational) between Sonae's internal areas and with external entities, such as suppliers, logistic service providers and customs brokers:

- **Flow Management:** this area is responsible for managing all the flows between Sonae and external partners, i.e.: suppliers, service providers and customs brokers. Regarding imports process, this area ensures all the process related to payment to suppliers, scheduling, physical flow (departure and arrival of the cargo), as well as all the process related to customs clearance.

- **International Operations and Planning:** this area is responsible for managing the contracts with 3PL and for finding the best solutions for transportation, considering variables such as time, cost and volume.

- **Reporting and Control & Projects:** this area is divided in two sub-areas: one related to reporting, that controls and does all the reporting related to import and export activities; the other area is related to new projects that are under the international logistics scope. This area is responsible for GTMS project.

- **Customs Procedures:** this area is responsible for providing support to all Sonae's areas on matters related to customs procedures.

3.3. Global Trade Management System (GTMS)

Global Trade Management System (GTMS) project started when a series of constraints were identified in every team of International Logistics Department. This analysis was done under Sonae's initiative "Improve Our Work" (IOW), which placed the challenge of mapping every process of every team in order to find critical points and inefficiencies that could impact on results. The main constraints identified are detailed on Table 3.

Table 3 - Main issues identified under IOW's scope on International Logistics Department

Issue	Description
Systems	There is no system to support the Exports processes or Freight Management, that are managed by DLI teams
Integration with external entities	There is no system integration with external entities such as 3PL, suppliers or carriers
Transportation mode	The only transportation mode used where there is a system that provides track and trace functionalities is by sea and only for imports process – Workflow Comércio Internacional (WFCI)
Separation of physical/ documentation flow	Inexistence of a clear separation between physical and documentation flows
Real Costs	The costs simulated/estimated in beginning of each import/export process are not later updated by real costs
Real Time Information	Every information is received offline and with a delay
Business Information	Great difficulty on obtaining accurate information about processes since everything managed offline
Manual Inputs	For imports processes, there is a platform where teams can input manually the information that is exchanged offline, WFCI, but since it's a manual process, it leads to errors and information inconsistency

After identifying the main issues, the project team was able to define the main goals of GTMS project:

- Enable the company with a robust and adequate system to support import/export activities, allowing a quick response and visibility to all stakeholders;

- Create a flexible and agile global supply chain tool, from sourcing to customer delivery. All supply chain partners will access a single source of truth, using it to quickly adapt

their logistics plans to demand and combat supply chain risk due to disruptions and supply chain complexity;

- Design the best solution for Imports and Exports process, across different business units, maximizing the reliability and efficiency of distribution networks, while minimizing transport and storage costs;

- Ensure the company the best solution regarding transportation, e.g. Sea, Air, Land and Multimodal Transportation modes;

- Create a collaborative community of Buyers, Suppliers, Service Providers and Customs Brokers;

- Align processes and systems across Sonae's business units;

- Make a clear separation between the documentation flow, quality control activities and the physical flow of material.

- Replace the current tool used to manage the imports process, WFCI – "Workflow Comércio Internacional", for a more robust and complete global trade management system.

In order to choose the best solution to support this project, the project team created a business case and sent it to several companies that could provide a product to suit these needs. The product that was chosen was the collaborative platform of GT Nexus.

GT Nexus platform is a Software as a Service (SaaS) tool where a third-party entity hosts the application on the web, making it available for the customers (TechTarget, 2017). This kind of software eliminates the need of installing applications on computers and avoids "hardware acquisition, provisioning and maintenance, as well as software licensing, installation and support" (TechTarget, 2017).

However, some limitations arise with this type of software:

- Customization of the product is difficult, in some cases impossible;

- GT Nexus database is not accessible.

3.4. Global Trade Management System (GTMS) Implementation Approach

To change the mind-set and the operating mode of Sonae, GTMS project team encouraged the cross-involvement of all Business Units to design To-Be processes, according to their business needs, benchmarking and GT Nexus requirements.

After project's kick off in September 2015, GT Nexus made a series of workshops on site to capture the As-Is process and define the To-Be process. Based on process maturity, business requirements and system impacts, thee different releases were defined:

- **Release 1:** set to deliver visibility of milestones (supply chain events) of imports process for suppliers from regions such as China, India, Pakistan, Bangladesh and Sri Lanka (IPBSL) and Rest of the World (ROW). Due to the number of suppliers from these regions, this release's Roll-Out was divided in three different phases:

    - **Phase 1:** Suppliers from IPBSL regions (±80 suppliers);
    - **Phase 2:** Suppliers from China region (±420 suppliers);
    - **Phase 3:** Suppliers from ROW regions, i.e. Taiwan, Thailand, Vietnam and Myanmar (±30 suppliers).

- **Release 2:** will deliver an interface for collaboration with suppliers, i.e. the ability to, for a given purchase order (PO) collaborate with vendors to commonly define delivery dates and quantities to be delivered in each date, and other fields, at SKU level;

- **Release 3:** will delivery visibility of activities regarding exports process, and all inbound transactions that don't require placing a purchase order in company's ERP (e.g. samples, spare parts for electronics products).

The key drivers for this decision to deliver the programme in three releases were:

- GT Nexus' recommendation according to their experience with other customers. Also, this phased approach enables a proper change management leading to a successful implementation;

- The technical independencies between the imports and exports processes and the different modules to implement. Implementing limited realities in stages (by processes – imports/exports and by regions – IPBSL/China/ROW) allows a more effective change management, a continued learning, the possibility of integrating improvements and reduces the risk to the organization.

Sonae's approach to do each release's implementation in different phases will allow a more gradual transformation of business processes and operations, as well as a gradual process of decommission of others platforms/tools in use. Each release will be divided in 4 different stages:

1. **Configure, Develop & Test**: configure the tool based on Sonae's requirements, develop solutions for the processes and test it;

2. **User-Acceptance Testing:** some users will run specific tests to check if the tool suits the needs of their business units before Go-Live;

3. **Go-Live & Pilot:** Pilot aims to understand if each Business Unit (BU) is comfortable with the platform and understands the process flow. At this stage, each BU will choose few suppliers and the challenge will be to engage, train and clarify all users, monitor usage of the system, and, if necessary, to make adjustments/improvements to the tool, before the Roll-Out;

4. **Roll-Out:** The Roll-Out approach is done by regions, so the first group of suppliers will be those with IPBSL as country of origin. Therefore, all inbound processes with vendors from IPBSL will be operating with GT Nexus platform in a first stage. The second group of vendors to be activated in GT Nexus are the ones that have China as country of origin. The third and last group of vendors that will be collaborating will be all vendors from the rest of the world regions. The reason of this selection, division and prioritization is related to the number of vendors in each origin (IPBSL and China) and the importance of China and IPBSL as origin of Sonae's international purchases.

This research project will mainly focus on Release 1 Pilot and Roll-Out stages for IPBSL and China regions in order to analyse the implementation process regarding the integration of all stakeholders and all the change management needed inside the company. This research project started on September 2016, two months before GTMS Go-Live (9th November 2016).

3.5. Release 1

As said before, Release 1 aims to deliver visibility of the milestones (supply chain events) of the imports process for suppliers from China, IPBSL and ROW regions.

The imports process on Sonae consists on a physical flow of materials from the supplier to Sonae's warehouses. This physical flow is ensured according to various Modes of Transportation (MOT), depending on various factors such as place of origin, destination, urgency related to the good's arrival to the warehouse, 3PL, type of commodity, incoterm, and other aspects.

Sonae's import processes mainly consist on three different physical flows, that are completely ensured by 3PL, meaning that, according to the incoterm, he is responsible for managing the cargo from the point of handover until the delivery on Sonae's warehouses. The incoterms mainly used by Sonae on IPBSL, China and ROW origins for imports processes are FOB, FCA, CIF and CPT. To see the main characteristics of these incoterms, vide Table 1.

- **Physical flow from Supplier/Vendor to Sonae's Warehouses, by Sea:**

When leaving supplier's facilities, the goods can either go to a Container Freight Station (CFS) for consolidation with other cargos and then go to a Container Yard (CY), or go directly to a CY, depending on the type of container load, i.e. Full Container Load (FCL) or Less than Container Load (LCL). After arriving to the Port of Loading (POL), the cargo is shipped and this sea journey ends when the vessel arrives to the Port of Destination (POD). The 3PL is responsible for ensuring the transportation from the point of cargo's handover to Sonae's warehouses. All these steps are reflected on Figure 4.
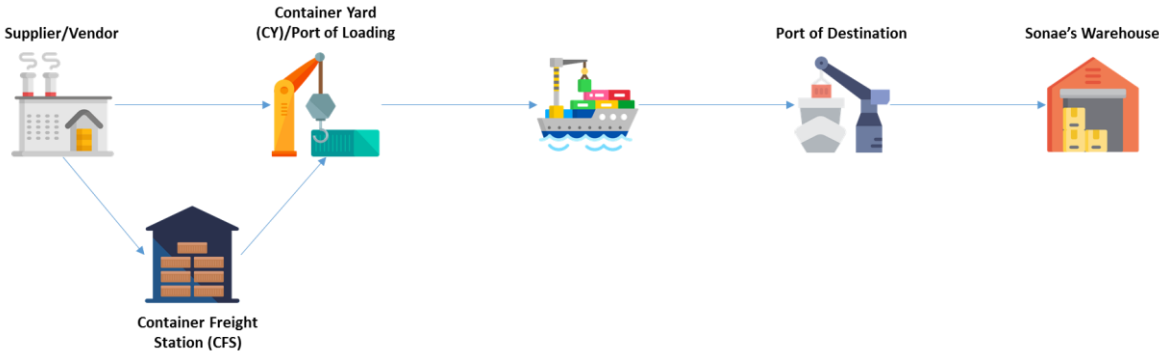
Figure 4 - Physical flow of the cargo by Sea

- **Physical flow from Supplier/Vendor to Sonae's Warehouses, by Air:**

When leaving supplier's facilities, the goods can either go to a Hub for consolidation with other cargos and then go to the Origin Airport, or go directly to the Origin Airport, depending on the type of cargo load. After arriving to the Origin Airport, the cargo is loaded into a plane and sent to a Destination Airport in Portugal. The final step is the arrival of the cargo to Sonae's warehouses. All these steps are reflected on Figure 5.
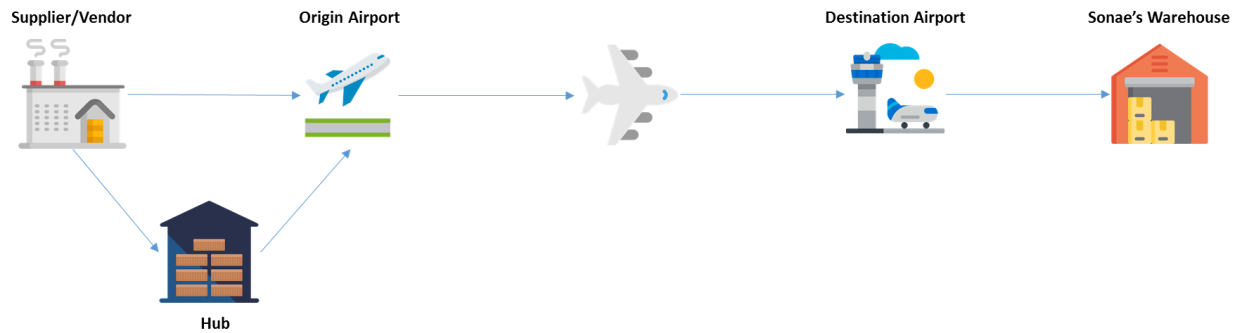
Figure 5 - Physical flow of the cargo by Air

- **Physical flow from Supplier/Vendor to Sonae's Warehouses, by multimodal transportation - Sea and Road:**

When leaving supplier's facilities, the goods can either go to a CFS for consolidation with other cargos and then go to a CY, or go directly to a CY. After arriving to the POL, the cargo is shipped and this sea journey ends at a transhipment port. The cargo is then transferred to a truck that ensures its delivery on Sonae's warehouses. This kind of combination is used when there's some urgency related to the cargo's arrival. All these steps are reflected on Figure 6.
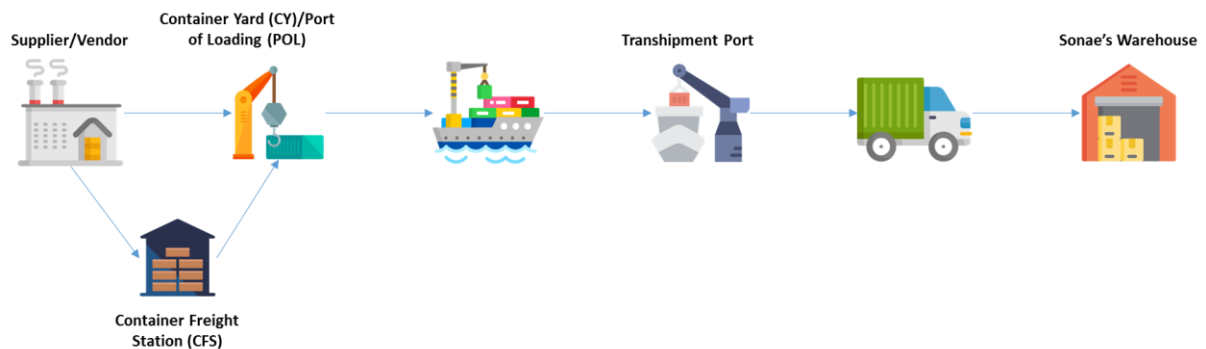
Figure 6 - Physical flow of the cargo by Sea-Road

This is an overview of the physical flow of the cargo on imports process, which GTMS project aims to provide visibility on Release 1.

After GT Nexus workshops with Sonae's business units, a series of milestones were defined as the ones that are essential to provide visibility of the imports process in every business unit. These series of milestones belong to different entities that participate on the imports process. The different entities are:

- **Sonae:**
  - **Quality Teams:** are responsible for quality control activities, e.g. accepting or rejecting samples;

- o **Flow Management Teams:** are responsible for activities that ensure the physical, informational and documentation flow of the cargo being imported;

- o **Sourcing Teams:** are responsible for activities related to sourcing and others such as the definition of the product's requirements being imported;

- **3PL:** ensures the activities related to the physical flow of the cargo from the point of handover to the point of delivery, depending on the agreed incoterm between buyer and seller;

- **Supplier/Vendor:** responsible for the product manufacturing/trading;

- **Customs Brokers:** ensures customs clearance process.

Not all milestones are common to all Sonae's Bus, e.g. quality control events are different due to the type of products imported – clothing, electronics, food, and others. It is important to refer that these are Sonae's BUs that will work with GT Nexus platform:

- Sonae SR - Fashion: MO and Zippy;

- Sonae SR - Sports and Sports Brands;

- Electronics: Worten;

- Sonae MC - Fresh Food;

- Sonae MC - Food;

- Sonae MC – Home & Textile;

- Sonae MC – Bazaar;

- Sonae MC – Bazarão;

- Sonae MC - Wells;

On Figure 7 are reflected the milestones that were initially defined as the ones that reflect the main events of the imports process of Sonae. Each colour represents a different entity responsible for posting the respective milestone:

Figure 7 - Milestones initially defined for imports process

The purpose of implementing this model of milestones is to provide visibility of the imports process for each purchase order placed by Sonae, allowing a track and trace of the product.

All these milestones reflect Sonae's imports process As-Is, i.e. all these events already took place before GTMS project and they are common to every purchase process for origins such as IPBSL, China and ROW.

On Appendix I – Imports Process Milestones, is possible to find a description of each milestone and the respective ownership in terms of BU.

Each entity has a specific profile with access credentials in order to log into GT Nexus platform, Figure 8, so they can do their respective actions and provide visibility of the process.
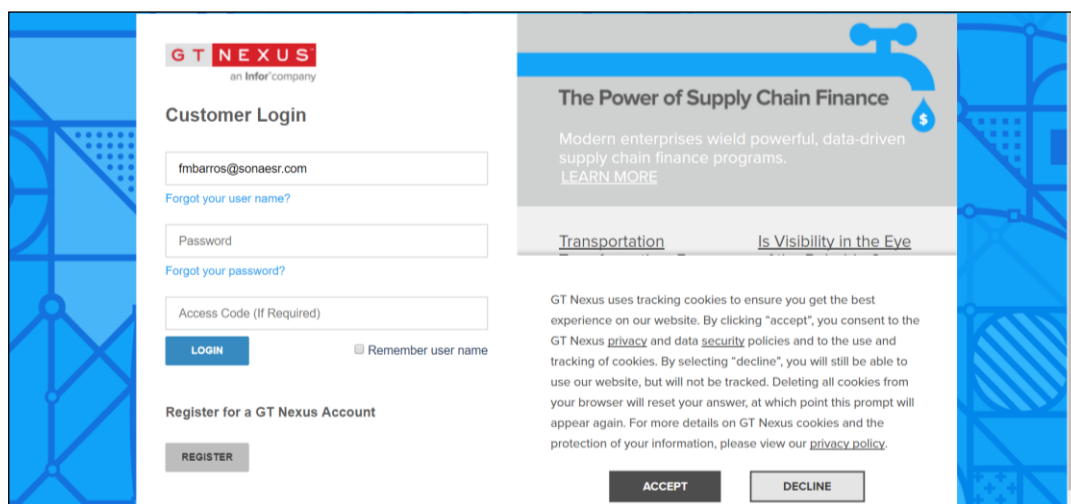
Figure 8 - GT Nexus Login screen

This platform provides the opportunity for users to reflect information both via User Interface (UI) or trigger information sending via Electronic Data Interchange (EDI). On UI option, users

log in on GT Nexus platform and do their respective actions directly. Sonae, customs brokers and suppliers use this kind of interface. However, some of the 3PL that Sonae currently works with have their own platforms, where they receive information from other entities, such as carriers. An EDI integration between Sonae's GT Nexus platform and their platforms was developed to receive certain information that is mapped on certain objects on the platform, providing visibility.

Besides the milestone model that GT Nexus platform provides, there are other functionalities that allow having all the process centralized in one single platform, enabling one single point of "truth". Users can upload all the necessary documentation related to an purchase process at the platform. In addition, suppliers/vendors have an option that allow them to create the booking/Plan-to-Ship at the platform, i.e. a request "of space and equipment aboard a vessel for cargo which is to be transported" (Freightarea, 2017) and after submitting it, the information is sent to 3PL's interfaces. When the cargo is shipped, 3PL triggers a message called Advance Shipping Notice (ASN) that provides all the information about the shipment such as: cargo details (weight, volume, number of packages), estimated dates of arrival, container number, vessel name, flight ID, bill of lading number, airway bill number, among others. This message is then reflected on GT Nexus interface for users to check all the details about the shipment.

In sum, the main functionalities made available with Release 1 of GTMS programme that aim to provide visibility of the imports process are milestone posting, booking/Plan-to-Ship creation, document upload and shipment/ASN creation.

Sonae's Workflow on GT Nexus Platform, for Release 1

Sonae's workflow on GT Nexus is summed up on Figure 9 and will be next explained.

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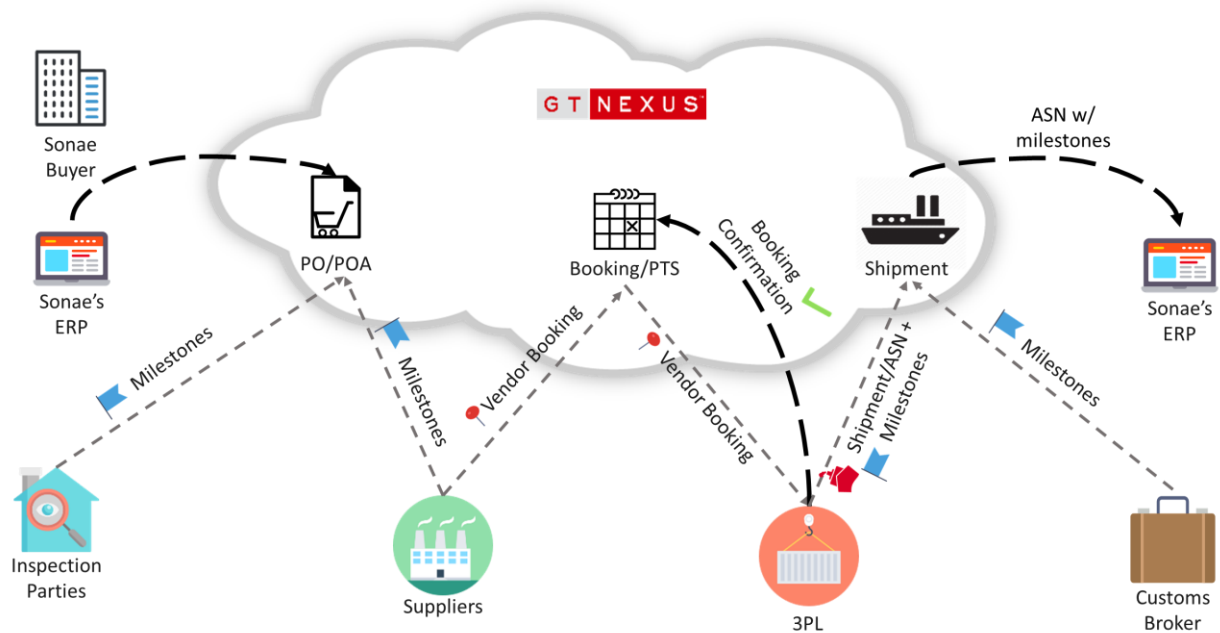
Figure 9 - Sonae's Workflow on GT Nexus

For Release 1, the imports process begins with the Purchase Order (PO) confirmation on Sonae's ERP. Once a user from sourcing teams approves the PO, the information flows to GT Nexus, via EDI.

On Figure 10 is possible to see some of the information related to a purchase order, i.e., quantity booked, quantity shipped, division that placed the purchase order, incoterm and entities related to the PO. In case an entity is not specified on PO's related information, that entity will not be able to see the PO information on the platform, i.e. only the entities that specified on PO information have visibility of it on GTN platform.
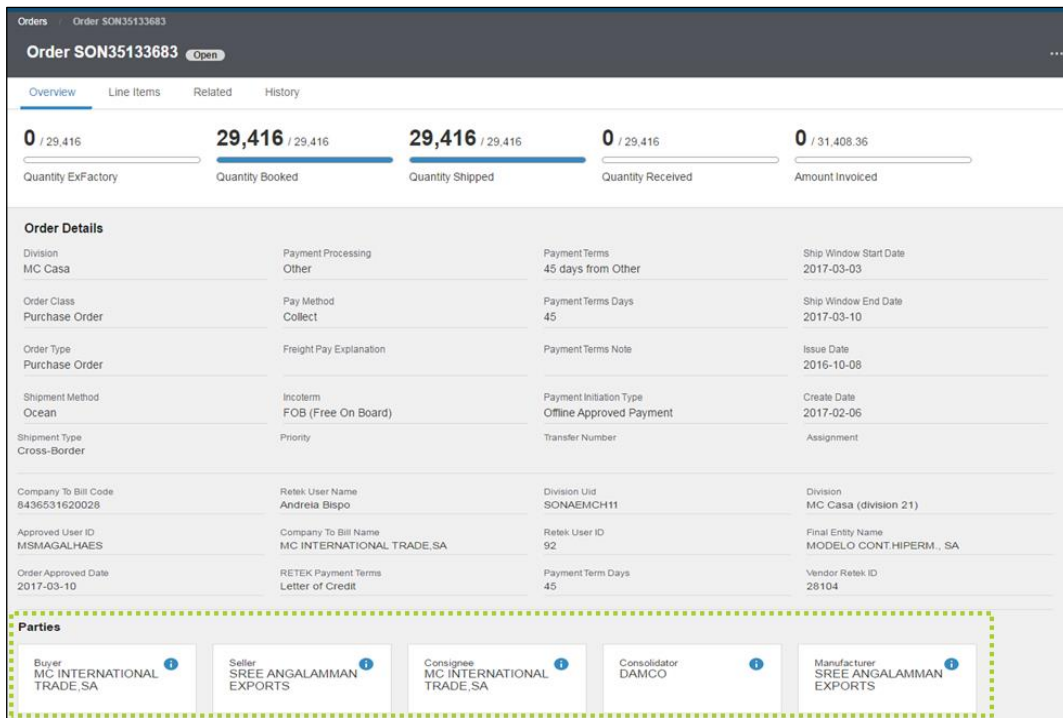
Figure 10 - Purchase Order screen on GT Nexus platform

After placing the purchase order, users will be responsible for posting their respective milestones and those milestones will reflect events related to flow management, quality or sourcing. Suppliers/Vendors and Quality Teams are responsible for posting pre-production and production milestones.

Sonae's interface to post milestones is present on Figure 11. Users just have to select the respective milestone from a dropdown list. This list is configured by an administrator that defines which milestones can be available for each type of Sonae user – quality, sourcing or flow management teams. After selecting the milestone, users have to select the country from where they are posting the milestone, the city, the date and can add some useful information in the *Comment* section. After inputting all the necessary information, users just have to click on *Save & Close* and the milestone will be posted.
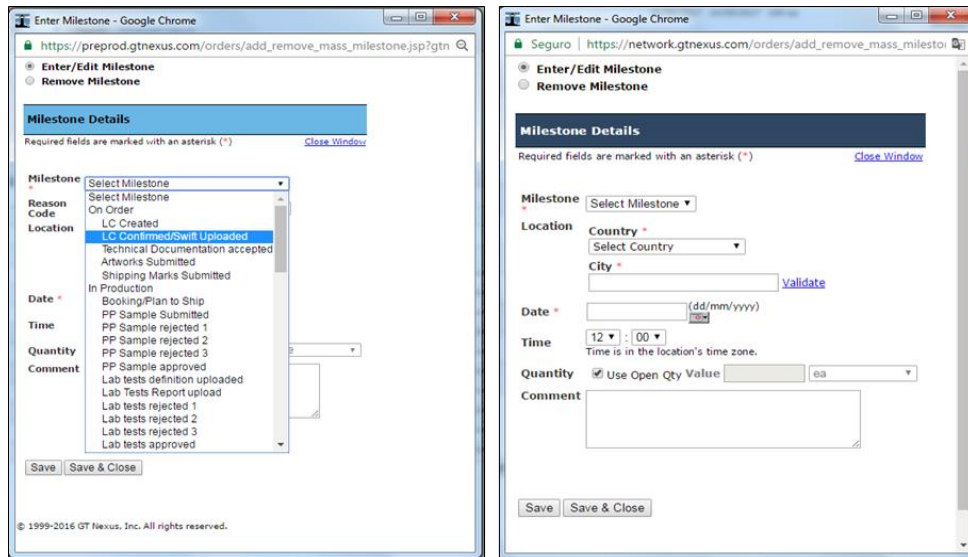
Figure 11 - Milestone posting interface for Sonae users

Users can then check which milestones are posted for each purchase order, Figure 12. On this screen, users can check the location, who is the milestone submitter, the time stamp of the milestone as well as respective comments.

Figure 12 – Screen to check which milestones are posted for a given PO

The next step is to create the booking/Plan-to-Ship and the supplier/vendor is responsible for it. The booking creation option is exclusively available on vendors' profiles on GT Nexus so only them can create it. During the booking creation, the vendor must input information related to:

- ***Identification:***
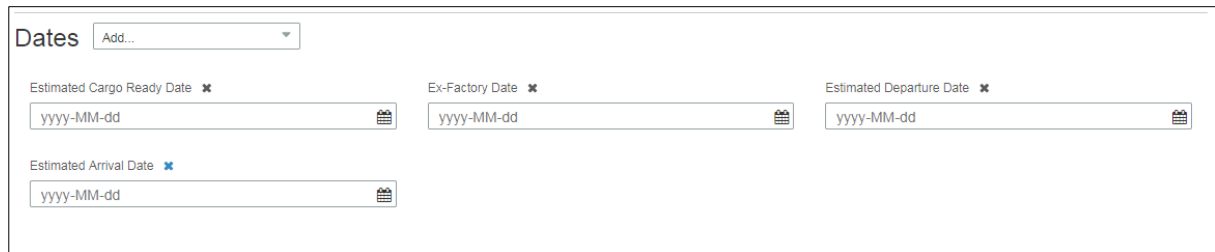
- o **Ship-From:** vendor must specify the address and other information about the shipper. The shipper's factory address can match or not the vendor's address. In case the vendor is a trader, i.e., works with multiple suppliers and sells their products under his brand, the shipper address will be the factory address of the supplier. This information is crucial to the 3PL;
- o **Final Destination:** this field must have information about the destination warehouse;
- o **Consolidator:** this field must be filled with information about the 3PL.

On Figure 13 is possible to see the interface related to the *Identification* section on Booking/Plan-to-Ship creation option.

Figure 13 - Identification section on Plan-to-Ship menu

- **Dates:**
  - o **Estimated Cargo Ready Date:** this date refers to the date that the vendor estimates to have the cargo ready to be dispatched;
  - o **Ex-Factory Date:** this date refers to the date that the vendor/shipper estimates to have the cargo ready to leave his facilities;
  - o **Estimated Departure Date:** this date refers to the date that the vendor/shipper estimates to have the cargo shipped;
  - o **Estimated Arrival Date:** this date refers to the date that the vendor/shipper estimates to have the cargo arriving to the point of destination.

On Figure 14 is possible to see the interface related to the *Dates* section on Booking/Plan-to-Ship creation option.

Figure 14 - Dates section on Plan-to-Ship menu

- ***Shipment Detail:***

    o ***Method/Mode:*** this field is where the vendor indicates the mode of transport, e.g. sea, air;

    o ***Shipment Load Type:*** this field is where the vendor indicates if the cargo will be loaded as Less than Container Load (LCL) or as Full Container Load (FCL);

    o ***Vessel/Voyage Number:*** this field is where the vendor inputs the name/number of the vessel or of the flight;

    o ***Incoterm:*** this field is where the vendor indicates which incoterm was negotiated;

    o ***Incoterm Location:*** this field is where the vendor indicates which will be the location where the cargo will be handover;

    o ***Carrier:*** this field is where the vendor indicates which carrier will responsible for the physical flow of the cargo;

    o ***Freight Forwarder:*** this field is where the vendor indicates which freight forwarder will responsible for the physical flow of the cargo;

    o ***Departure Location:*** this field is where the vendor indicates the departure location, port of loading or city of the port of loading;

    o ***Departure Date:*** this field is where the vendor indicates the departure date;

    o ***Arrival Location:*** this field is where the vendor indicates the arrival location, port of discharge or city of the port of discharge;

    o ***Arrival Date:*** this field is where the vendor indicates the arrival date to the destination port or airport.

On Figure 15 is possible to see the interface related to the *Shipment Detail* section on Booking/Plan-to-Ship creation option.

Figure 15 - Shipment Detail section on Plan-to-Ship menu

- **Equipments:**

  - **Equipment Type:** on this field, the vendor chooses which type of equipment will be used, from a dropdown list, e.g. containers;

  - **Count:** on this field, the vendor indicates how many equipments he will need.

On Figure 16 is possible to see the interface related to the *Equipments* section on Booking/Plan-to-Ship creation option.

Figure 16 - Equipments section on Plan-to-Ship menu

- **Line Items:**

  - **Item Quantity:** here the vendor must indicate the number of products he wants to ship, for each SKU;

  - **Package Count:** here the vendor must indicate the number of packages he wants to ship, for each SKU;

  - **Package Code:** on this field, the vendor can choose a standard type of package, selecting the respective code, for each SKU;

  - **Pack Method:** on this field, the vendor chooses the pack method;

- o *Dimension Unit:* on this field, the vendor chooses the dimension unit of the package, for each SKU;

- o *Length, Width and Height:* here the vendor must input the dimensions for length, width and height, for each SKU;

- o *Volume Unit:* on this field, the vendor chooses the volume unit, for each SKU;

- o *Volume:* on this field, the vendor inputs the volume value, for each SKU;

- o *Weight Unit:* on this field, the vendor chooses the weight unit, for each SKU;

- o *Net Net:* on this field, the vendor inputs the net net weight, for each SKU;

- o *Net:* on this field, the vendor inputs the net weight, for each SKU;

- o *Gross:* on this field, the vendor inputs the gross weight, for each SKU.

On Figure 17 is possible to see the interface related to the *Line Items* section on Booking/Plan-to-Ship creation option.

Figure 17 - Line Items section on Plan-to-Ship menu

After filling in all these fields, the vendor must submit the booking/Plan-to-Ship and after submitting it, the information related to it will be sent to the 3PL.

GT Nexus implemented a logic on its platform to easily define the 3PL considering geographies and MOT, Table 4.

Table 4 - Logic for 3PL assignation

Geography	MOT	3PL
IPBSL	Ocean	Damco
IPBSL	Air	Agility
China	Ocean	Kuehne & Nagel
China	Air	Kuehne & Nagel

When a PO is submitted from Sonae's ERP to GT Nexus platform, the system identifies the geography and the MOT and assigns automatically the 3PL that can either be Damco, Agility or Kuehne & Nagel. The information about 3PL is immediately displayed on PO information screen, vide Figure 10, on the field *Consolidator*. This information migrates to booking/Plan-to-Ship interface and cannot be changed by the vendor, so when the vendor submits the booking/Plan-to-Ship, it flows directly to the 3PL initially assigned at PO level.

It's up to the 3PL to confirm, reject or leave the booking pending. If they confirm the booking request, the pre-shipment process is then initiated. On this process, quality teams are responsible for posting some milestones related to quality processes such as Final Random Inspection (FRI) and Loading Supervision (LS). FRI is an inspection made at supplier's facilities by external quality teams. After the inspection, a report is sent to Sonae's internal quality teams and they transmit the result to FMT. In case the result is positive, FMT can give permission to ship to the 3PL. LS inspection consists on an inspection that assures that the finished goods are correctly handled when loaded into containers, in order to ensure safe transportation and delivery at their final destination (Focus, 2017).

If Sonae Quality Teams post these milestones as *Accepted*, this means that the 3PL can ship the cargo.

The 3PL will then send milestones related to receiving the cargo at the Container Freight Station (CFS) or at the Container Yard (CY) and related to the actual shipping of the cargo.

When the cargo is shipped, the 3PL sends and additional message called Advance Shipping Notice (ASN) with all the information related to the shipment, i.e.: logistics data, the list of purchase orders and respective SKUs included on that shipment, the vessel name, carrier, port of loading, port of discharge, bill of lading number, container number, container type, and other important information.

Here is important to refer that Sonae's 3PL have different realities: Damco and Kuehne & Nagel have their own platforms, which they integrate with other customers. Considering this, an EDI integration was developed between their platforms and GT Nexus platform. This means that milestones and ASN sending is ensured by an EDI integration. As for Agility, their inputs regarding shipment information are made via UI, which means they must post milestones and create shipment/ASN manually on GT Nexus platform.

When the cargo arrives to the port of discharge, 3PL is responsible for reflecting that information by posting the milestones *Cargo Arrived at Pier* and *Cargo Arrived at Place*.

When the cargo arrives, the customs clearance process starts to take place and the custom broker is responsible for posting the milestones related to it. When the customs clearance process is finished, the 3PL is then responsible for posting the milestones related to the delivery of the cargo on Sonae's warehouse.

All this process provides visibility of the imports process and is made in a centralized way, in one platform, with different interfaces and functionalities for the respective entity.

All this information is then reflected in a reporting view, customizable and where users can choose which fields they want to reflect on their reports as well as the respective filters.

On Figure 18 is possible to see the reporting view on GT Nexus platform. The fields displayed at the top of the report are selected by the users.

Figure 18 - Reporting view on GT Nexus platform

3.6. Critical Analysis

After doing a close analysis regarding the current situation, it is possible to build a critical view from it and identify the main problems that emerged from the platform's utilization. These issues emerged after project's Go-Live, when users started to work with the platform on a daily basis. These issues were reported via status meetings that were conducted frequently with Sonae's internal teams, GT Nexus, 3PL and Customs Brokers. The point of contact for suppliers/vendors was GT Nexus that would later transmit their feedback to GTMS project team.

3.6.1. Lack of Accuracy on Defined Processes for Release 1

The processes and milestones for the imports process were defined in a very early stage of the project and some of them were not suitable to the reality of the imports process.

The operational teams soon identified that the following processes were not foreseen and defined when the project had its Go-Live:

- **Inexistence of a procedure for changes on certain fields of PO, after being placed:** the POs are placed when the negotiation is closed with the supplier/vendor. However, sometimes there are certain changes that have to be reflected on the PO information, e.g. quantities, dates, SKUs, and others. This may present some impacts, depending on the stage of the process e.g. if the booking have already been placed or if the shipment of the cargo have already happened. A procedure had to be defined to standardize the process across all business units.

- **Inexistence of a procedure to define priorities for each shipment – change of MOT (e.g. Sea-Road) and/or Warehouse Priority**: most of the time, suppliers/vendors don't fulfil the agreed dates to ship the cargo, creating a necessity of having to change the MOT in order to get the cargo sooner at the port of discharge. This change of priority on the arrival of the cargo is also very frequent due to campaigns and promotions, and this may imply a change of MOT as well as a change of priority on reception procedure at Sonae's warehouse.

- **Inexistence of a procedure for cargo scheduling at the warehouse:** after the customs clearance process, the final step is to receive the cargo at Sonae's warehouses. For that, there are certain conditions that must be met and, according to that, a map for the cargo receptions at the warehouse is then created to be transmitted to the warehouse teams.

3.6.2. Inexistence of a workflow for shipment approval

Before GTMS project, all Sonae's business units had to communicate with the 3PL about the approval of the shipment, i.e, if he could or not ship the cargo and this decision was based on the results of certain inspections (mostly FRI and LS). With GTMS project, a proposal was made to all business units to drop this procedure since most of the times the inspection results were positive and this only generated unnecessary entropy on the process. Sonae SR business units accepted to drop the procedure but Sonae MC business units and Worten decided to keep it and, therefore, the need to create a shipment approval workflow on GT Nexus platform emerged.

3.6.3. Lack of active engagement of all stakeholders on platform's utilization

As said before, GT Nexus platform is a collaborative tool where Sonae, suppliers/vendors, 3PL and customs brokers ensure visibility of the imports process. This requires that all these stakeholders have the knowledge of how to work with the platform. An on-boarding process is always ensured by GT Nexus, online or on site, where users get to know the platform. However, there was a very large time-gap between the on-boarding process and the project's Go-Live.

When the Go-Live started, users did not remember much of what they had learned, specially Sonae users and the suppliers/vendors. This created a need of reinforcing their learnings about Sonae's process on GT Nexus platform. Additionally, GT Nexus had some support materials like end-user trainings for Sonae, suppliers/vendors and 3PL but the process explained on these manuals wasn't adapted to Sonae's reality and users didn't find it much useful.

The lack of knowledge about GT Nexus platform made that suppliers didn't place bookings on time and missed the planned dates for shipment. Furthermore, GTMS project team noticed that Sonae users weren't posting their respective milestones because most of users didn't remember how to do it.

This created an urgent need of refreshing their learnings and provide them support materials that they could check whenever they needed.

3.6.4. Inexistence of a procedure for vendors to define their factory addresses

During IPBSL Roll-Out, a major problem emerged that was compromising the reception of the booking/Plan-to-Ship information, via EDI, on Damco's interface. Damco system required to have registered all the information related to fields like shipper, final destination, manufacturer and consignee, that were available on the booking/Plan-to-Ship creation process. If the information present on the booking/Plan-to-Ship was unknown to Damco's system, their interfaces wouldn't be able to process it. Usually, the fields were filled by default with information present on the PO. However, the field where the vendor had to identify the shipper was a text-free field, where the vendor could input any information he wanted.

On Figure 19, is possible to see the field where the vendor had to input the information about the shipper, the *Ship-From* field.

Figure 19 - Ship-From field on Plan-to-Ship interface

Most of the times, the shipper information corresponded to the vendor information (name, code, address and contacts) and this information is usually provided to Damco, by GT Nexus, after the on-boarding process.

However, if the vendor is a trader, then the information about the shipper is unknown to Damco and Sonae, and Damco needs this information prior to booking/Plan-to-Ship creation.

Additionally, Damco requires that the vendors/shippers define a unique factory code. This code has to be exclusively numeric.

However, the screen where the shippers add the information doesn't have any field that suggests a code input, Figure 20.

Figure 20 - Fields to input shipper's information

The integration of several bookings was compromised due to this situation and the time taken for the resolution compromised the shipping windows, as well. This became critic and it was urgent to find a solution for this complex problem.

3.6.5. Inexistence of a procedure to deal with One-Time Vendors

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A One-Time Vendor is a vendor with whom Sonae doesn't have a recurrent relation (one or less purchase orders placed per year or trial purchases).

The motivation to treat them differently is related with the on-boarding process, that presents a cost for providing training, per supplier, and takes on average 3-4 weeks, in steady state.

For this kind of suppliers/vendors, Sonae couldn't afford to do the on-boarding of all of them so the need to create an alternative solution emerged. The requirements of this new alternative solution were that had to be based on GT Nexus tool and had to guarantee the visibility of the imports process.

3.6.6. Critical Analysis' Synthesis

Numerous issues emerged when different entities started to work with GT Nexus platform on a daily basis. A synthesis of the main problems identified during this chapter is on Table 5.

Table 5 - Synthesis of the identified issues

Issue	Description
Inexistence of a procedure for changes on certain fields of PO, after being placed:	POs are placed when the negotiation is closed with the supplier/vendor and, sometimes, there are certain changes that have to be reflected on the PO information, e.g. quantities, dates, SKUs, and others. This may present some impacts, depending on the stage of the process e.g. if the booking have already been placed or if the shipment of the cargo have already happened.
Inexistence of a procedure to define priorities for each shipment – change of MOT (e.g. Sea-Road) and/or Warehouse Priority:	Frequently, suppliers/vendors don't fulfil the agreed dates to ship the cargo, creating a necessity of having to change the MOT in order to get the cargo sooner at the port of discharge or to change the type of priority of the cargo in order to get a faster treatment when the cargo is received at Sonae's warehouses.
Inexistence of a procedure for cargo scheduling at the warehouse:	There are certain conditions that must be met in order to give permission to the 3PL to deliver the cargo at Sonae's warehouses and, according to that, a map for the cargo receptions at the warehouse is then created to be transmitted to the warehouse teams.
Inexistence of a workflow for shipment approval	A need of creating create a shipment approval workflow on GT Nexus platform emerged, for certain BUs, in order to prevent the shipment of nonconforming products.
Lack of active engagement of all stakeholders on platform's utilization	A lack of knowledge about GT Nexus platform utilization has made that all entities did not execute their respective actions on it. This created an urgent need of refreshing their learnings and provide them support materials that they could check whenever they needed.
Inexistence of a procedure for vendors to define their factory addresses	During IPBSL Roll-Out, a major problem emerged that was compromising the reception of the booking information, via EDI, on Damco's interface, due to a field present on booking/Plan-to-Ship that presented a series of requirements to be properly filled.

Inexistence of a procedure to deal with One-Time Vendors	A One-Time Vendor is a vendor with whom Sonae doesn't have a recurrent relation (one or less purchase orders placed per year or trial purchases). The motivation to treat them differently is related with the on-boarding process, that presents a cost for providing training, per supplier/vendor, and takes on average 3-4 weeks, in steady state. For this kind of suppliers/vendors, Sonae couldn't afford to do the on-boarding of all of them so the need to create an alternative solution emerged.

4. PRESENTATION AND IMPLEMENTATION OF IMPROVEMENT MEASURES

In this chapter will be presented the improvement measures to solve the problems explained in the previous chapter. The suggested improvement measures were developed taken into consideration internal best practices, as well as suggestions given by entities such as Sonae's internal teams, suppliers/vendors, 3PL and customs brokers.

4.1. Change of Previously Defined Processes to Better Reflect the Imports Process

As explained before, a series of processes were defined in a very early stage of the project. When the project had its Go-Live, the operational teams found a series of processes that hadn't been properly defined. The project team had to find solutions for all these processes, in accordance with the functionalities that were available at the platform.

4.1.1. Procedure to Make Changes on Certain Fields Present on Purchase Orders

Purchase Orders (PO) are placed when the negotiation is closed with the supplier. After being closed, all PO details are input on company's ERP and, when approved, all the information flows to GT Nexus platform.

This communication with the supplier is made offline and, sometimes, the suppliers and Sonae decide to change certain conditions - for example: number of SKUs to be shipped, shipment dates or arrival dates -, and these alterations are made when the PO is already placed and approved on the ERP, and therefore present on GT Nexus. Additionally, some of these changes are, sometimes impossible to be reflected on the ERP due to the timing that they are being made and certain parametrizations configured there.

A few months after the project's Go-Live, these situations started to become more frequent and there was a lack of communication between sourcing teams and flow management teams. This has led to errors on the letter of credit opening process and to rework since Flow Management Teams only took notice of these changes when contacting with the suppliers. Additionally, due to this lack of communication between teams, the documentation flow didn't match the physical flow of the imports process, leading to critical problems on customs procedure, resulting in costs that could be avoided.

It became urgent to define a procedure to be followed by all business units in order to avoid this situation.

To define this procedure, it was necessary to take into account certain factors, such as:

- The timing when the change is being made;

- If the change would be reflected in all SKUs of the PO or just in some SKUs. This is a critical point since there are two types of changes on the ERP: changes at header level and changes at line/SKU level. The attributes present at header level are attributes such as incoterm, Mode of Transport (MOT), shipment and arrival dates, supplier information, buyer information, and others. The header attributes contain information that is common to every SKU present on the PO. The attributes at line level are the ones that are singular for each SKU. The only attributes under this condition are quantities and the price of each SKU. This means that, in case users want to do changes on attributes present at header level for only some SKUs, they have to delete the SKUs that suffered the changes and create a new PO that reflects those changes.

After several meetings with the teams, the project team was able to gather some internal best practices and create the following diagrams that explain what sourcing and flow management teams must do, according to the timing and the type of change (total or partial).

On Figure 21, is possible to see which are the steps that each team must follow in order to guarantee that the changes on the PO are made according to best practices, and considering that the timing of the change is before booking/Plan-to-Ship creation.
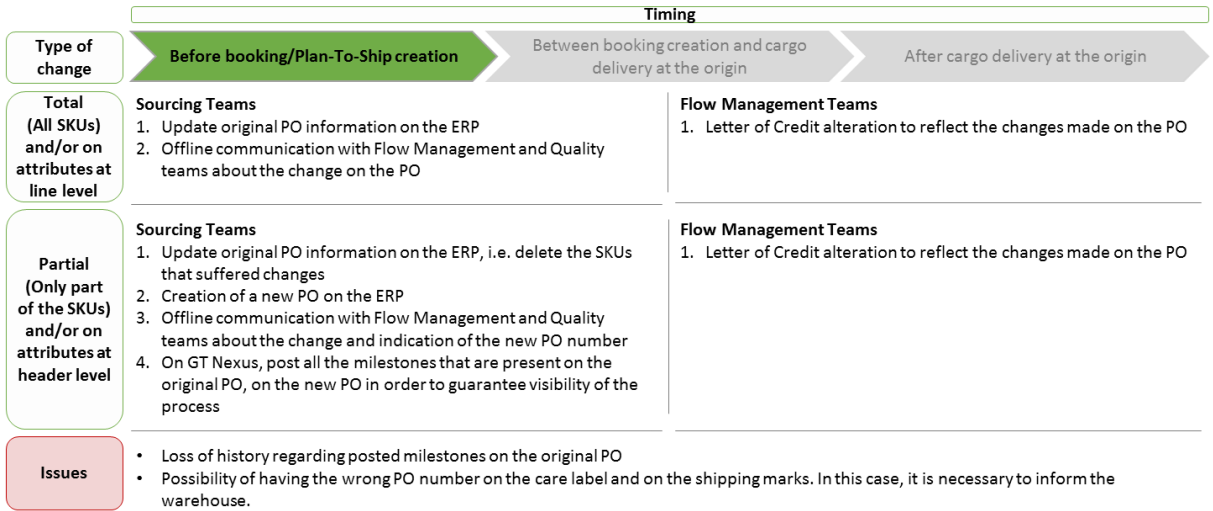
Figure 21 - Procedure teams must follow when changes on PO are made before booking/Plan-to-Ship creation

However, there is no perfect solution. There will always be a possibility of loss of information and errors.

On Figure 22, is possible to see which are the steps that each team must follow in order to guarantee that the changes on the PO are made according to best practices, and considering that the timing of the change is after booking/Plan-to-Ship creation but before cargo delivery at the origin.

As we move forward in the process, the necessary steps to guarantee that there is no information losses increase and the situation becomes more complex. Additionally, there is a greater risk that the documentation flow does not correspond to the physical flow, in case the changes are not made on the right timing.

Type of change	Timing		
	Before booking/Plan-To-Ship creation	Between booking creation and cargo delivery at the origin	After cargo delivery at the origin
Total (All SKUs) and/or on attributes at line level	**Sourcing Teams** 1. Update original PO information on the ERP 2. Offline communication with Flow Management and Quality teams about the change on the PO	**Flow Management Teams** 1. Letter of Credit alteration to reflect the changes made on the PO 2. If the booking: a) Has already been accepted by the 3PL, it is necessary to make an offline request to the vendor to inform the 3PL about the change b) If the booking is waiting 3PL's approval, the vendor must review the booking on GT Nexus platform and submit it again, so the 3PL receives the most updated version	
Partial (Only part of the SKUs) and/or on attributes at header level	**Sourcing Teams** 1. Update original PO information on the ERP, i.e. delete the SKUs that suffered changes 2. Creation of a new PO on the ERP with the SKUs that were deleted from the original PO 3. Offline communication with Flow Management and Quality teams about the change and indication of the new PO number 4. On GT Nexus, post all the milestones that are present on the original PO, on the new PO in order to guarantee visibility of the process	**Flow Management Teams** 1. Letter of Credit alteration to reflect the changes made on the PO 2. If the booking: a) Has already been accepted by the 3PL, it is necessary to make an offline request to the vendor to inform the 3PL about the change on the original PO and indicate the new PO number (**except in cases the PO's Incoterm is C***) b) If the booking is waiting 3PL's approval, the vendor must review the booking on GT Nexus platform and submit it again, so the 3PL receives the most updated version	
Issues	• Loss of history regarding posted milestones on the original PO • Possibility of having the wrong PO number on the care label and on the shipping marks. In this case, it is necessary to inform the warehouse.		

Figure 22 - Procedure teams must follow when changes on PO are made after booking/Plan-to-Ship creation but before the cargo delivery at the origin

On Figure 23, is possible to see which are the steps that each team must follow in order to guarantee that the changes on the PO are made according to best practices, and considering that the timing of the change is after cargo delivery at the origin.

Type of change	Before booking/Plan-To-Ship creation	Between booking creation and cargo delivery at the origin	After cargo delivery at the origin
	Timing		
Total (All SKUs) and/or on attributes at line level		**Sourcing Teams** 1. Update original PO information on the ERP 2. Offline communication with Flow Management and Quality teams about the change on the PO 3. Offline communication with the warehouse teams	**Flow Management Teams** 1. Offline request to the vendor to review the booking

Partial (Only part of the SKUs) and/or on attributes at header level		**Sourcing Teams**
		1. Update original PO information on the ERP, i.e. delete the SKUs that suffered changes
		2. Creation of a new PO, on the ERP, with the SKUs that were deleted from the original PO
		3. On GT Nexus, post all the milestones that are present on the original PO, on the new PO in order to guarantee visibility of the process (optional)
		4. Offline communication with Flow Management and Quality teams about the change and indication of the new PO number
		5. Offline communication with the warehouse teams to inform the PO number for reception purposes
			Flow Management Teams
			1. Offline request to the vendor to review the booking of the original PO and to create a booking for the new PO (**except in cases the PO's Incoterm is C***)
			2. If the incoterm of the new PO is:
			   a) C*, FMT team is responsible for creating the shipment on GTN platform;
			   b) F* or D*, FMT must ask the 3PL to include the new PO in the shipment
			3. When posting the milestone *Original Docs Validated* on the original PO, FMT must indicate the new PO number on the comments section of the milestone menu

Issues	• Loss of history regarding posted milestones on the original PO • Possibility of having the wrong PO number on the care label and on the shipping marks. In this case, it is necessary to inform the warehouse.		

Figure 23 - Procedure teams must follow when changes on PO are made after the cargo delivery at the origin

At this late stage, there is an additional need of creating a new PO exclusively for reception purposes.

This procedure was defined and presented to every business unit and teams compromised to follow it to ensure data quality and visibility of the processes.

4.1.2. Procedure to Define Priorities for Each Shipment – Change of Mode Of Transportation (e.g. Sea-Road) and/or Warehouse Priority

As said before, most of the times, suppliers/vendors didn't fulfil the agreed dates to ship the cargo, creating the necessity of having to change the MOT in order to avoid delays on cargo's arrival at the port of discharge. This change of priority on the arrival of the cargo was also very frequent due to campaigns and promotions and this could imply a change of mode of transportation (MOT) and a change of priority at Sonae's warehouse.

The change of priority contemplates two types of actions:

- **Change of Mode of Transportation:** Flow Management Teams had to request a change of MOT to the 3PL. The most common situation was to change from a Sea MOT to a Sea-Road MOT. This implied that the cargo would leave the vessel at a transhipment port and then it would be carried by truck to Sonae's warehouse.

- **Change of priority at Sonae's warehouse**: usually, each cargo is processed by their order of arrival. However, if a cargo is flagged as priority, it will be processed as soon as it arrives to the warehouse.

These two kinds of priority aren't mutually exclusive, i.e. a shipment can be flagged with just one type of priority or with both.

This procedure hadn't been defined at the time of GTMS Go-Live and teams soon discovered that they needed an efficient way to flag these situations, without having to resort to offline communication with the 3PL and warehouse teams.

The first step to define this procedure was to determine which team should be responsible for flagging the shipment as priority. Since sourcing teams were in permanent contact with the suppliers/vendors, it was logical to assign that responsibility to them.

The requirement for this procedure was that it had to be exclusively made on GT Nexus platform. GT Nexus platform had an option called *Reason Codes* where it could be defined several reasons to justify a given situation and that information would be visible and related to the shipment.

The project team decided to define a reason code group called *Priority* and listed the two types of priority reasons: *Sea-road* and *Warehouse Priority.*

For this procedure, sourcing teams had to search for the shipment that had to be flagged, select it and then click on the option *Update Reason Codes*, Figure 24.
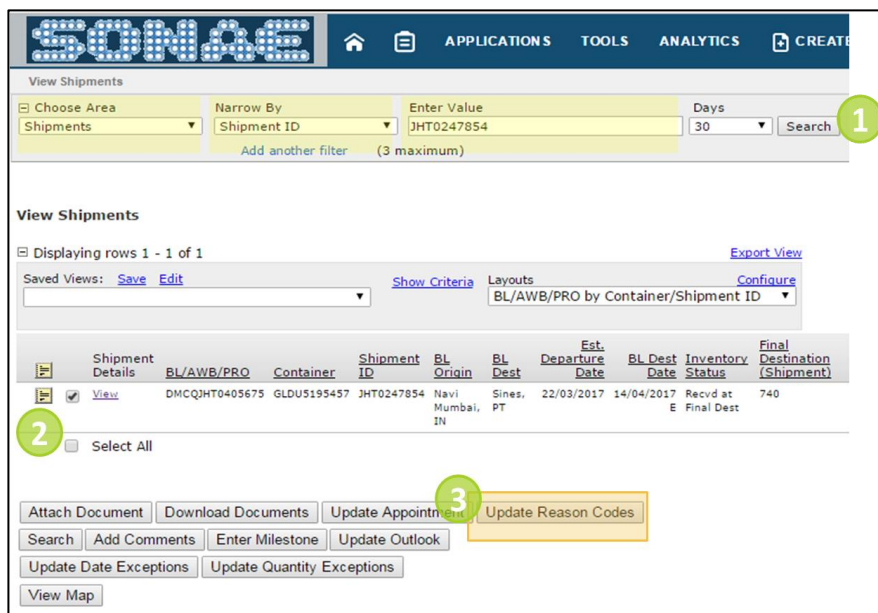
Figure 24 - Steps to assign a Reason Code to a shipment

After clicking on the option *Update Reason Codes*, a menu would pop-out and users just had to select the respective type of priority, Figure 25.
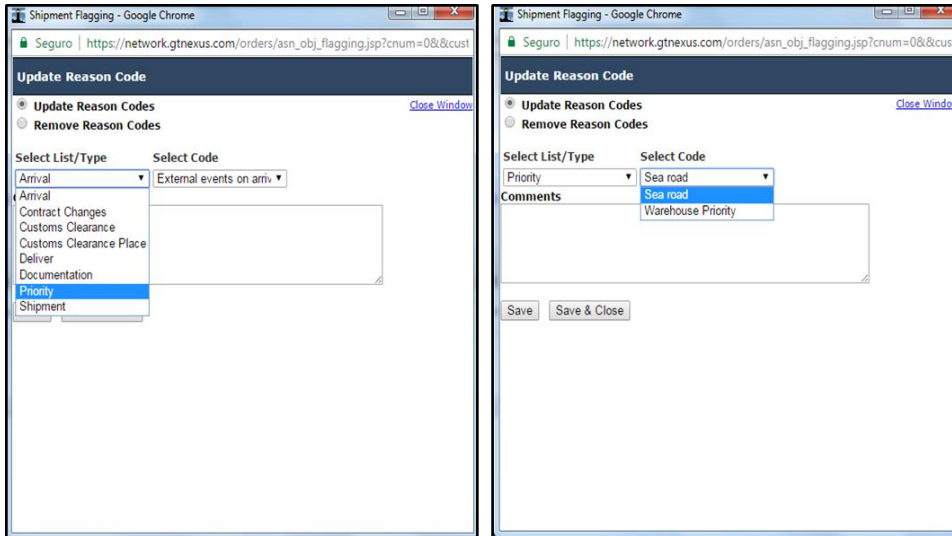
Figure 25 - Pop-out menu to update Reason Codes

The second step was to define which team should transmit to 3PL and warehouse teams the information regarding priority shipments. FMT was the point of contact with 3PL and warehouse teams, so that responsibility remained with them.

In order to standardize and centralize the information transmission to other stakeholders, the project team created a report called *Priority_Shipments*, available to every user of FMT team, with all the fields that was necessary to provide to 3PL and warehouse teams, Figure 26.

Figure 26 - Report available on GT Nexus for Priority Shipments

Additionally, some conditions were configured when generating this report, i.e. this report would only be triggered if a shipment was flagged as priority by the reason code, Figure 27.
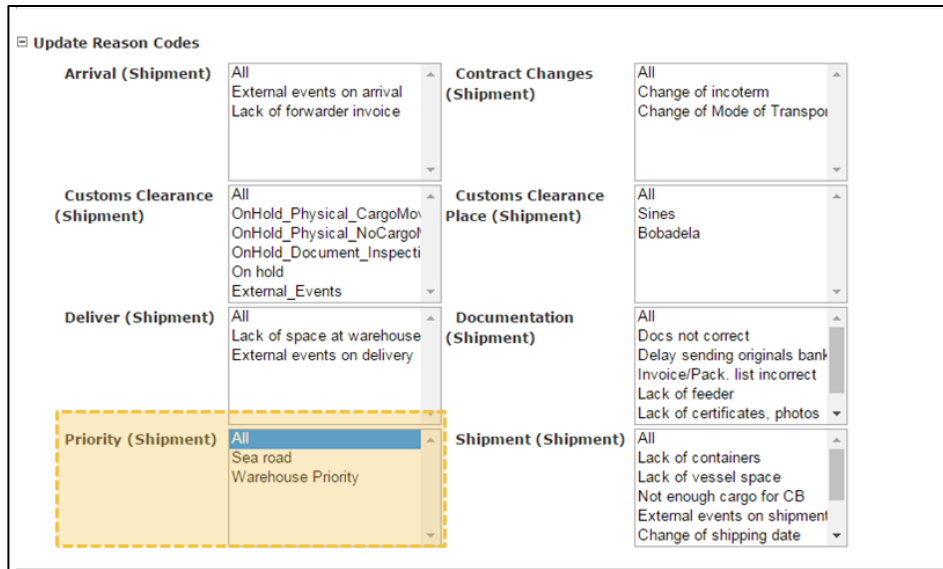
Figure 27 - Configuration made to trigger this report when a shipment is flagged as priority

FMT ran this report two times a day and, in case there was some reason code related to changing the MOT to Sea-Road, the report would be sent to the 3PL to expedite the operation, i.e. leave the cargo at a transhipment port and ensure road transportation.

If there was some shipment on the report flagged with the reason code *Warehouse Priority*, the report would be sent to warehouse teams.

4.1.3. Procedure for Cargo Scheduling at Sonae's Warehouse

After customs clearance process, the final step is to receive the cargo at Sonae's warehouse. For that, there are certain conditions that must be met and, according to that, a map for the cargo receptions at the warehouse is then created to be transmitted to the warehouse teams.

Three conditions must be met to flag a cargo as available for warehouse scheduling:

1. **Original documentation received by Flow Management Team**: this event is flagged on GT Nexus by the milestone *Original Docs Received*;

2. **Cargo present at Port of Discharge**: this event is flagged by the milestone *Cargo Arrived at Pier* or *Cargo Arrived at Place*;

3. **Customs Clearance process finished**: this event is flagged by the milestone *Customs Clearance Completed*.

On Figure 28 is possible to see where the referred milestones are located in terms of imports process (highlighted as green).

Milestones (top process flow):

Row 1: PO Confirmed | LC Created | LC Confirmed / Swift Uploaded | Technical Documents Accepted | Artworks Submitted | Shipping Marks Submitted | PP Sample Accepted/Rejected | Lab Tests Definition Upload | Lab Tests Report Upload | Lab Tests Accepted/Rejected | IPC/IPI Report Upload | IPC/IPI Accepted/Rejected | Care Label Submitted | Material Available | Production Started | DuPro Report Upload

Row 2: DuPro Accepted/Rejected | Golden Sample Submitted | Golden Sample Accepted/Rejected | Pre Shipment Report Uploaded | Pre Shipment Accepted/Rejected | FRI Report Uploaded | FRI Accepted/Rejected | OK for Quality Control | Booking/Plan To Ship | Booking Confirmed | LS Report Uploaded | LS Accepted/Rejected | OK for Inspection Control | Cargo Ready for Delivery | Cargo Received at CFS | Cargo Received at CY

Row 3: Cargo Shipped | Shipment Docs Uploaded | Original Docs Sent to Bank | Original Docs Received | Shipment Docs Validated | Cargo Arrived at Pier | Cargo Arrived at Place | Customs Clearance Started | Customs Clearance on Hold Start | Customs Clearance on Hold Finish | Customs Clearance Completed | Cargo Scheduled | Cargo Delivered Destination | Cargo Reception Confirmed | QC at Destination

Legend: Business Units · Quality Teams · 3PL · Flow Management Teams · Suppliers/Vendors · Customs Brokers

Figure 28 - Milestones that must be posted to flag cargo availability for warehouse scheduling

When these three conditions are assured, i.e. when FMT sees on GT Nexus platform that a given PO or Shipment has these three milestones posted, they can then flag the availability of the cargo for warehouse scheduling.

However, this process wasn't defined at the time of GTMS Go-Live and FMT soon realized that they needed to define it. The definition of this process would help FMT to obtain a report with all the cargos that are available for warehouse scheduling in order to build a weekly planning for the warehouse teams.

The solution to define this process consisted on creating a new milestone, called *Cargo Availability.* So, as referred before, when FMT users see on GT Nexus that a given shipment has posted the milestones *Original Docs Received*, *Cargo Arrived at Pier* or *Cargo Arrived at Place* and *Customs Clearance Completed*, they have to post the milestone *Cargo Availability.* This procedure is illustrated on Figure 29.

Original Docs Received + **Cargo Arrived at Pier/Place** + **Customs Clearance Completed** → **Cargo Availability**

Figure 29 - Conditions that must be assured in order to post the milestone Cargo Availability

After posting the milestone *Cargo Availability*, the next step is to obtain a report with all the shipments that have this milestone already posted and that can be scheduled for reception at the Sonae's warehouse. This report was built by the project team, with inputs of FMT, to standardize the process of information sending to the warehouse teams, Figure 30.

Figure 30 - Report to check cargo's availability

This report is ran two times a day and when returns shipments available for warehouse receptions, FMT posts another milestone, called *Cargo Scheduling*.

This milestone is posted with a future date, i.e. the date when the cargo will be delivered at Sonae's warehouse, after customs clearance process. On Figure 31 is possible to see what information FMT input when posting this milestone: they select the milestone *Cargo Scheduled*, select the city where the warehouse is located, select a future date and time, and add a comment with information about the delivery at the warehouse.

Figure 31 -" Cargo Scheduled milestone posting menu

The last step is to send a report with the weekly scheduling to the 3PL and warehouse teams. GTMS project team created another report, called *Agendamento_Entreposto*, to standardize the

information sending, and additionally created some rules to filter the shipments that are present on this report by 3PL entity, i.e. Damco, Kuehne & Nagel or Agility.

On Figure 32 is possible to see the report *Agendamento Entreposto GF* that could be sent to Damco (3PL for IPBSL regions), meaning that this is the report configured to return only the shipments that were processed by Damco.

Figure 32 - Report "Agendamento Entreposto GF"

4.1.4. Procedure for Shipment Approval

Before GTMS project, all Sonae's business units had to communicate with the 3PL about shipment's approval, i.e, if he could or not ship the cargo, and this decision was based on the results of certain inspections such as Final Random Inspection (FRI) and Loading Supervision (LS). With GTMS project, a proposal was made to all business units to drop this procedure since, most of the times, the inspection results were positive and this only generated unnecessary entropy on the process. Sonae SR business units accepted to drop the procedure but Sonae MC business units and Worten decided it was best to keep it. However, GT Nexus platform didn't had any workflow that could enable a shipment approval, so the need of creating one emerged.

The first step to create this new workflow was to know the BU's requirements. After several meetings with the BU's that wanted to implement this workflow, a common factor was identified: although there were two types of inspections (FRI and LS), BUs only cared about the FRI result to give the permission to ship to the 3PL.

As said before, FRI is an inspection made at supplier's facilities by external quality teams. After the inspection, a report is sent to Sonae's internal quality teams and they would transmit the result to FMT. In case the result was positive, FMT could give permission to ship the cargo to the 3PL.

LS inspection consists on an inspection that assures that the finished goods are correctly handled when loaded into containers, in order to ensure safe transportation and delivery at their final destination (Focus, 2017).

Although, the old system (WFCI) required to have registered both inspection results, FMT transmitted offline the permission to ship to the 3PL soon after knowing the FRI result.

Two processes were presented to the business units that wanted to implement the shipment approval workflow with the respective advantages and disadvantages.

The As-Is process on GT Nexus is explained on Figure 33. This process consisted on the following:

1. A PO is placed on Sonae's ERP and transmitted to GT Nexus;

2. After placing the PO, the supplier can create the booking/Plan-to-Ship and submit it;

3. After submitting it, the booking/Plan-to-Ship flows directly to 3PL interfaces so he can create or transmit all the details about the respective shipment.
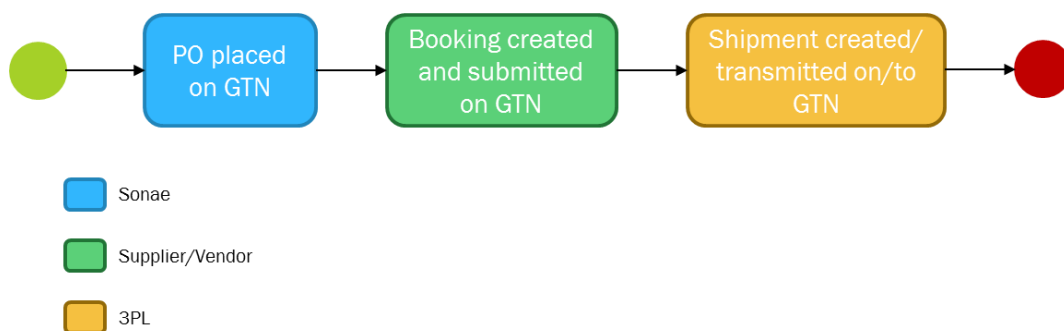
Figure 33 - As-Is shipment approval workflow

On this process, the 3PL could assume that "no news, good news" since FMT would only communicate in case he could not ship the cargo.

On Table 6 is possible to see the synthesis of this scenario with the respective advantages and disadvantages.

Table 6 – 1ˢᵗ Scenario of Shipment Approval

Scenario:	1ˢᵗ Scenario: No Shipment Approval (GTN As-Is)
Procedure	1. Vendor creates and submits the booking/Plan-to-Ship to the 3PL 2. 3PL accepts the booking/Plan-to-Ship 3. Vendor checks the booking confirmation by the 3PL through the booking status 4. Sonae checks the booking confirmation through the milestone "Booking Confirmed" 5. 3PL ships the cargo as soon as possible

Advantages	1. Simpler process, it only requires FMT intervention by exception, i.e. when the FRI result is negative and becomes necessary to communicate offline with the 3PL 2. The additional step of approving/unapproving the booking/Plan-to-Ship on the system is avoided on this scenario 3. Elimination of the risk of a potential delay in the process, since 3PL can initiate load planning and space allocation as soon as he receives the booking/Plan-to-Ship. On the other scenario, 3PL only has visibility of the booking/Plan-to-Ship after FMT's approval and that can lead to potential delays if the FRI occurs too close to the planned shipping date
Disadvantages	1. Risk of cargo shipping without quality control, i.e. with non-conformities 2. In case of non-conformities, the workaround to prevent its shipping is offline and may not be on time 3. 3PL ships the cargo not considering Sonae's planning

This process was accepted and followed by the following business units: SR Fashion Zippy, SR Fashion Mo, SR Sports and SR Sports Brands.

The To-Be process proposed by the project team, with GT Nexus validation, is explained on Figure 34. This new workflow is configurable per BU and its activation implies an approval of all shipments. This To-Be process consisted on the following:

1. A PO is placed on Sonae's ERP and transmitted to GT Nexus;

2. After placing the PO, the supplier/vendor can create the booking/Plan-to-Ship and submit it;

3. After submitting it, the booking/Plan-to-Ship flows to Sonae's interface so FMT can review and approve it, according to FRI's result;

   a. If FMT approves it, the booking/Plan-to-Ship flows to 3PL so he can create or transmit all the details about the respective shipment;

   b. If FMT doesn't approve the booking/Plan-to-Ship due to FRI result, the booking is sent back to the vendor so he can correct certain details or delete the booking (the booking deletion can only be done by the vendor).
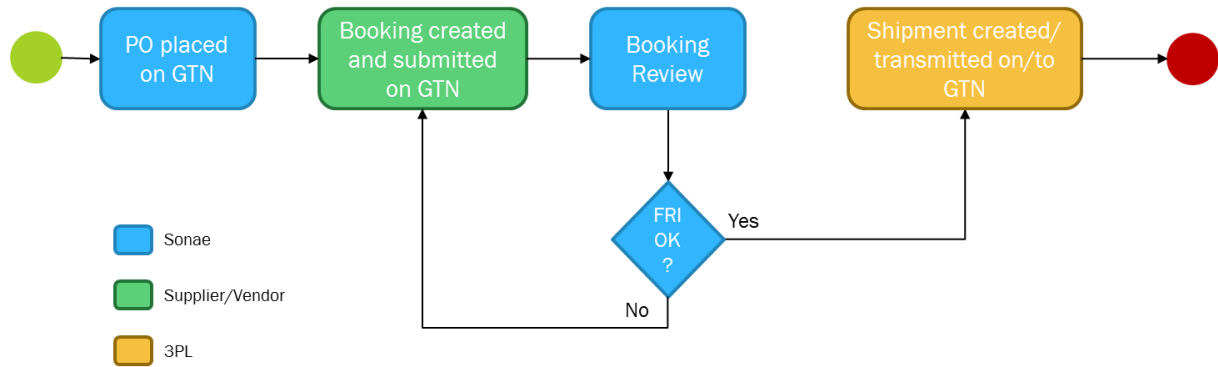
Figure 34 - To-Be shipment approval workflow proposed by GT Nexus.

These two processes were presented to the business units that wanted to implement the shipment approval workflow with the respective advantages and disadvantages.

On Table 7 is possible to see the synthesis of this scenario with the respective advantages and disadvantages.

Table 7 – 2nd Scenario of Shipment Approval

Scenario:	2nd Scenario: With Shipment Approval (GTN To-Be)
Procedure	1. Vendor creates and submits the booking/Plan-to-Ship to Sonae, not providing visibility of the booking/Plan-to-Ship to 3PL 2. FMT waits for a positive FRI result 3. FMT approves the booking/Plan-to-Ship, triggering the visibility of it to 3PL 4. 3PL accepts the booking 5. Vendor checks the booking confirmation by the 3PL through the booking status 6. Sonae checks the booking confirmation through the milestone "Booking Confirmed" 7. 3PL ships the cargo as soon as possible
Advantages	1. All the cargo ships with quality control 2. No offline workarounds 3. Greater probability of cargo shipping according to Sonae's planning
Disadvantages	1. Great risk of delays on the process; 2. Creation of two different processes to the FMT, according to the BU

This second scenario was chosen by MC BUs, namely: MC Bazaar, MC Home & Textile, MC Bazarao, MC Wells, MC Food, MC Fresh Food, Maxmat and Worten.

GT Nexus implemented this new workflow for MC BUs, Maxmat and Worten, meaning that any given PO from these BUs/Divisions would have to follow a new workflow with the additional step of booking's approval. In addition to the implementation, it was necessary to provide some training to the teams since this new workflow enabled some new functionalities on GT Nexus platform. This topic regarding training will be detailed on the next chapter.

4.1.5. Active Engagement of All Stakeholders on Platform's Utilization

As said before, all entities present on Sonae's supply chain – supplier/vendor, buyer, 3PL and customs broker - have an active role on GT Nexus platform. This implies that all these entities know the platform and how to work with it.

Different approaches were used to train these users. However, as mentioned before, there was a very large time-gap between the on-boarding process and the project's Go-Live, compromising their know-how.

In order to eliminate these constraints, the project team decided to reinforce their learnings with a more personalized approach, providing an adapted training according to the type of entity and their respective function.

- **Supplier/Vendor:**

The suppliers/vendors that were selected to engage on GT Nexus platform had to go through an on-boarding process, provided by GT Nexus team, with duration of 4 weeks that consisted on the following process reflected on Figure 35:
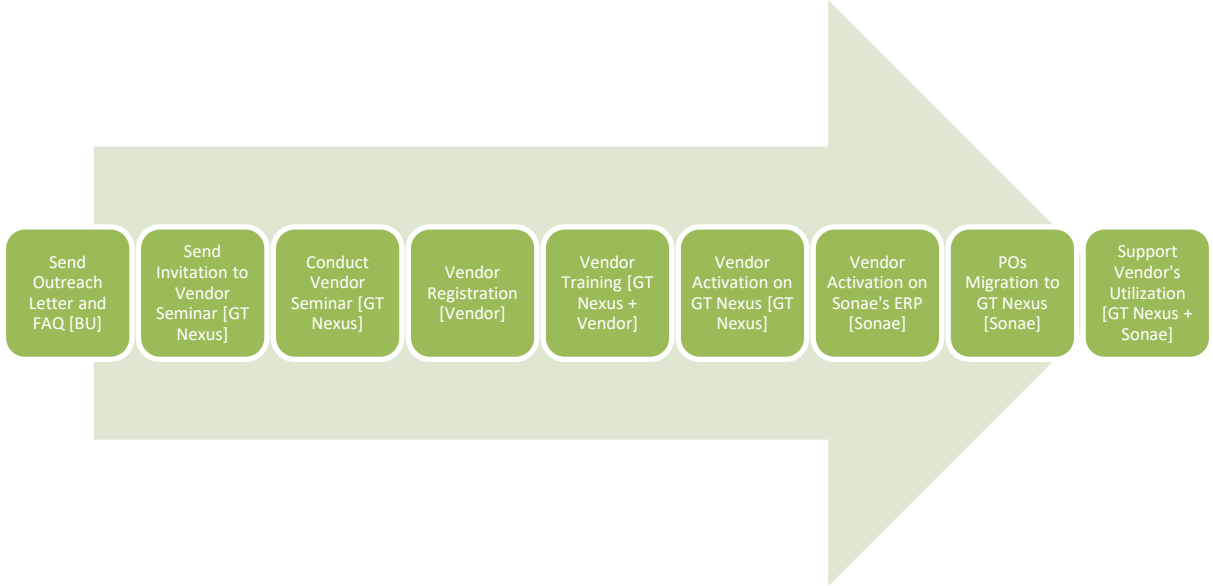
Figure 35 - Vendor Onboarding Process

Although this on-boarding process ensured the vendors' training, the project team soon realized that most vendors were struggling with their actions on GT Nexus.

- o Vendor Training-Manual

The project team analysed the vendor training-manual provided by GT Nexus and felt that it wasn't adapted to Sonae vendors' specific needs.

The project team decided to change the vendor training-manual, modifying it to a more process-oriented training-manual, including important warnings to ensure good practices and eliminating some information that wasn't relevant for Sonae's process on GT Nexus platform.

The new training-manual for vendors, see Appendix II – Vendor Training-Manual, was self-explanatory and vendors could do an end-to-end process just by following it.

- o Vendor On-boarding Champion

It was also very important to create a point of contact between the vendors and Sonae. The project team decided to nominate some key team members from sourcing teams to support the on-boarding process and to support the vendors when they had doubts of how to work with GT Nexus platform. These users were called "Vendor On-boarding Champions" (VOCs) and this initiative was a huge success. A Vendor On-boarding Champion has the following functions:

- Ensure and enable contacts between vendors and GT Nexus/project team;

- Keep the list of eligible vendors to work with GT Nexus platform updated;

- Communicate any change on vendors list to the project team;

- Ensure vendors participation on the training and in any other project related tasks;

- Ensure that vendors do their actions on time on GT Nexus platform, during the pilot (vendor follow-up);

- Follow-up on vendor's utilization of the system – milestone posting and booking/Plan-to-Ship creation;

- Handover the process to end-users when pilot is completed and support them during the Roll-Out.

The VOC role has revealed so important that teams decided it was best not to handover this function to end-users and to keep it centralized, since it demands a constant follow-up and contact with the vendors.

This figure will be only extinguished when GTMS project ends.

- o Vendor Handouts

VOC are responsible for approaching the vendors that will engage on GT Nexus platform and they soon felt that they didn't had any communication asset that could present and sum up the process on GT Nexus to the vendors.

The project team decided to create a handout, in three different languages (English, Portuguese and Chinese) to be distributed on a first approach with new vendors, see Appendix III – Vendor Handouts.

All these initiatives were a true success and very helpful to manage the change on the vendors' process.

- **Sonae – Sourcing, Quality and Flow Management teams**

Every sourcing, quality and flow management team was trained by the project team in order to learn how was the process in GT Nexus platform and what were their respective actions.

      o   Power Users

To ease this process, the project team decided to nominate a user in each team that would be responsible for supporting the other users, called "Power User". A power user has an additional training and has the following functions:

- Design User-Acceptance Tests;

- Execute User-Acceptance Tests;

- Roll-Out training to end-users;

- Use system frequently and provide feedback about the performance;

- Promote GT Nexus utilization.

The creation of Power Users resulted very well and will be a best practice on future releases.

      o   Hands-On Sessions

Power users weren't 100% dedicated to GTMS project since they had other functions on the company and weren't available every time to help users that were struggling with GT Nexus utilization.

The project team decided it was best to reinforce teams' learnings in a more personalized way and scheduled almost 40 "Hands-On Sessions" with sourcing, quality and flow management teams from every business unit.

The Hands-On Sessions consisted on sessions with groups until 10 users, where users could do their actions on GT Nexus on production environment. This has revealed to be a good strategy since they were learning and also guaranteeing their respective actions on GT Nexus.

These Hands-On Sessions resulted in almost 150 hours of training.

o End-User Training-Manuals

In order to ensure some support to the teams, the project team created two training-manuals with all the actions and respective steps on GT Nexus – one training-manual was for sourcing and quality teams and the other was for flow management teams.

These manuals included all the processes that were designed and implemented in order to fulfil their needs, see Appendix IV – End-User Training-Manual – Sourcing and Quality Teams and Appendix V – End-User Training-Manual – Flow Management Teams.

o Cornerstone

Additionally, the project team decided to create a shared area, called "Cornerstone", where all the support materials, training-manuals included, would be available and always updated. Any user could access using their Sonae's credential and download all the support materials.

On Figure 36 and Figure 37 is possible to see the interface of this shared area. All the support material related to future releases will be uploaded on this platform as well. Users can also find the support material provided to other supply chain entities to better understand the process on GT Nexus end-to-end.
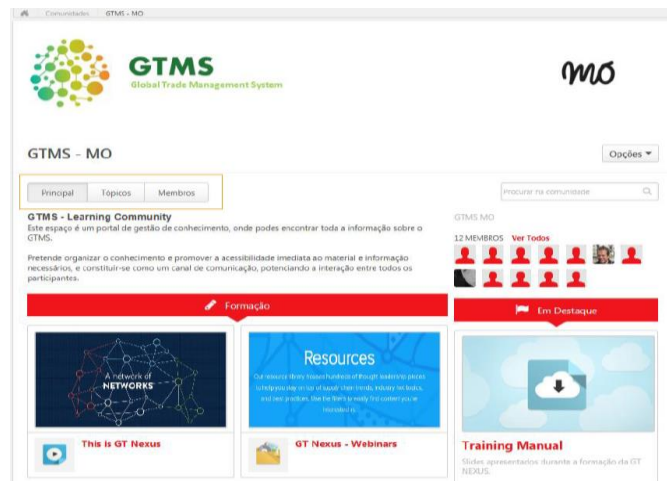
Figure 36 - Cornerstone Interface - Tab "Principal"
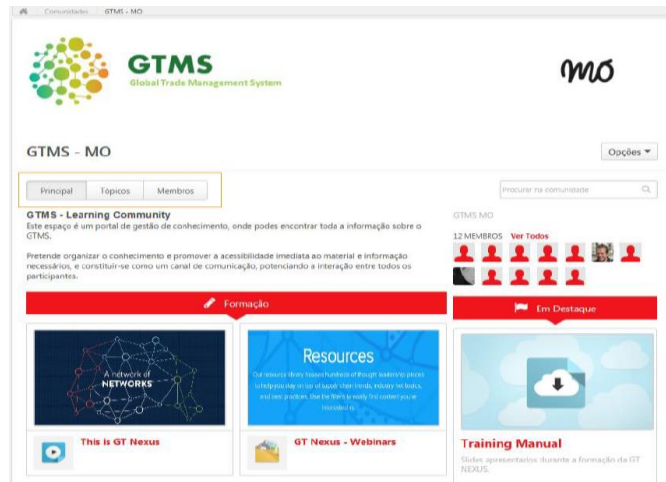
Figure 37 - Cornerstone Interface - Tab "Tópicos"

- o Sonae Glossary

Lastly, the project team noticed that one of the most frequent complaints was that users weren't aligned with GT Nexus nomenclature since they were used to the old system – WFCI – and to the nomenclature used on Sonae's ERP.

To fulfil this need, a GT Nexus Glossary was created where users could find the meaning of all terms used on the platform and in every single interface (approximatively 700 terms), Figure 38 and Figure 39.

Figure 38 - GT Nexus Glossary Index

Figure 39 - GT Nexus Glossary

This glossary also included instruction of how users could build some reports directly on the platform, Figure 40.

Figure 40 - Instructions about how to build reports on GT Nexus Glossary

This glossary revealed to be really useful and users compliment the way it was built, contemplating not only the glossary but also instructions to build reports and other useful information, see Appendix VI – GT Nexus Glossary. This glossary was later translated into English, a special request by GT Nexus, in order to be used on the on-boarding process.

- **Customs Brokers**

Customs Brokers users struggled with GT Nexus platform utilization as well. To reinforce their learnings, it was necessary to refresh their knowledge about the platform and what were the processes defined to ensure visibility of the customs clearance process.

o Hands-On Sessions:

Hands-On Session was a successful practice on Sonae's internal teams and the project team decided to apply it with customs brokers.

It resulted in almost 10 hours of training and customs brokers users took the chance to explain their doubts and give suggestions of how the process could be optimized. This training was provided on customs brokers' facilities.

o   End-User Training-Manual

After gathering all their feedback and align the new processes suggested by them with FMT, it was necessary to have some support material where they could check and use to train new employees.

The project team created an end-user training-manual exclusively oriented to customs broker's process and actions on GT Nexus platform, see Appendix VII – Customs Brokers End-User Training-Manual.

4.1.6.   Factory Addresses Process Definition

As referred before, the inexistence of a defined process for vendors to define their factory codes was having a huge impact on bookings/Plan-to-Ship integration on Damco's interface.

Vendors were responsible for creating the booking/Plan-to-Ship on GT Nexus platform and if the vendor's geography was IPBSL and the mode of transportation to be used was by sea, then this means that the 3PL that would carry this operation would be Damco (vide table Table 4).

After booking/Plan-to-Ship submission on GT Nexus platform, all the information related to it would be sent to Damco's interface, via EDI. All the information sent would have a correspondence on a certain field with certain parameters. If the information sent didn't match the defined parameters, then this would compromise the booking/Plan-to-Ship integration and Damco wouldn't be able to process it.

This lack of integration emerged when some Sonae's suppliers/vendors that were traders were on-boarded and started to work with GT Nexus platform.

All the information regarding the suppliers/vendors was provided to Damco during the on-boarding process so they could do a setup on their system. After doing the setup, Damco would provide a unique code to GT Nexus and GT Nexus would do a setup of the information regarding the address with that code, on vendor's interface. This allowed, that when vendors were creating a booking/Plan-to-Ship, there was already some default information on the field *Ship-From* (vide Figure 19) that would guarantee the integration of the booking/Plan-to-Ship on Damco's interface.

However, when working with traders, the field *Ship-From* must be filled in with information about the shipper, that wouldn't correspond to the vendor/trader information previously provided to Damco by GT Nexus.

The integration of several bookings was compromised due to this situation and the time taken for the resolution compromised the shipping windows, as well.

The first step to solve this situation was to understand why did Damco needed this previous setup. The architecture of their system demanded that they had certain information regarding the shipper, prior to booking/Plan-to-Ship creation, and they couldn't change that without making changes on their core system.

The second step was to ask GT Nexus if they could change the interface to something more intuitive for the vendors. Again, that would imply to do changes on the core system and GT Nexus is a SaaS, meaning that core changes can only be made if all GT Nexus clients agree with it.

The project team soon realized that a technical solution wouldn't be possible so it had to be a processual one.

Several meetings were conduct: with Damco, to better understand their requirements and what was the necessary information to do the setup on their interface; and with GT Nexus, to better understand how could vendors do the setup of this information on GT Nexus platform.

The information that Damco required to do the setup of a vendor was the following one:

- Factory Code – a unique numerical code;
- Name of the vendor/shipper;
- Address;
- City;
- Country;
- Postal Code;
- Phone Number;
- Fax;
- E-mail.

On GT Nexus, vendors could register this information on two different interfaces. One of the interfaces was independent of booking/Plan-to-Ship creation and consisted on an option

available on GT Nexus platform called *Address Book*, Figure 41, and the other was an option available during booking/Plan-to-Ship creation, Figure 42.
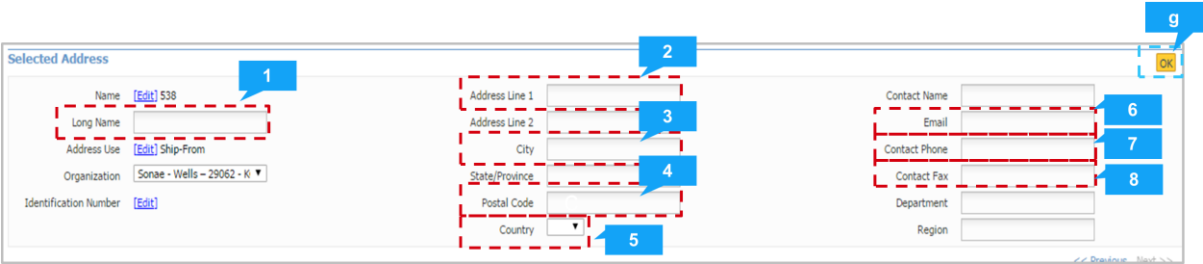
Figure 41 - Address Book Interface

Figure 42 - "Add Address" screen on booking/Plan-to-Ship creation interface

Since Damco needed this information prior to booking/Plan-to-Ship creation, it was a best practice to do the registration of the information on the interface independent from booking creation.

The fact that Damco required that each shipper/factory had a unique factory code added more complexity to this problem since any of the fields present on these interfaces didn't suggest the input of a code.

The project team decided to create a handout with clear instructions about the procedure to create factory addresses and also some FAQs for vendors to understand the importance of this procedure and clarify some doubts that they could have about it. On Figure 43 is possible to see the handout created.

Figure 43 - Handout with Factory Addresses Procedure

The FAQs reflected on the handout were the following:

- **Will Damco provide the factory code?** No. The factory code must be defined by the vendor/shipper. It must be a 3-4 digits numeric code. The code cannot contain letters or symbols, only numbers. You can use, for example, your respective GTN_ID and add a sequential number at the end, for each factory. Please note that the code for each factory must be unique.

- **On which fields do I have to type the factory code and the factory name? What are the mandatory fields to do this setup?** You must type the factory code on the *Name* field and the factory name on the *Long Name* field. The other mandatory fields are: *Address Line, City, Postal Code, Country, Email, Contact Phone, Contact Fax.*

- **Do I have to do this setup and communicate all the respective information when I start to work with a new factory?** Yes. If you don't inform Damco about the factory code and respective details, Damco's system won't be able to process the booking information. That is the main reason why they need this information prior to booking

creation. Please note that if you don't act accordingly, this will create exceptions on Damco's side and its resolution can compromise the shipping windows.

The next step was to train the Vendor On-boarding Champions (VOC) about this process, i.e. what were the steps on GT Nexus to create this factory addresses on the system. VOCs were also responsible for identifying all the traders from IPBSL regions and to pass them this procedure. Additionally, the project team created an excel sheet where the traders could register all the factory addresses and respective codes to send it to Damco in a standardized way.

Although this procedure relied on the good will of the traders to provide the information and do the setup on GT Nexus platform, the situation stabilized in a time space of 2 weeks, meaning that this was a great success.

This procedure was also included on vendor's training-manual, Appendix II – Vendor Training-Manual, in order to become a best practice for all vendors.

4.1.7. One-Time Vendor Process Definition

A One-Time Vendor is a vendor with whom Sonae doesn't have a recurrent relation (one or less purchase orders placed per year or trial purchases). Since Sonae cannot afford to do the on-boarding of this kind of vendors, it was necessary to create an alternative solution, based on GT Nexus tool and that could guarantee visibility of the imports process.

The solution found and technically accepted by GT Nexus was to maintain the offline negotiation with this kind of vendors but ensure visibility through an additional new profile on GT Nexus for Sonae – a configuration as a vendor organization in GT Nexus. This would allow to have access to the vendor's interface and options and ensure visibility doing the actions that a vendor does on GT Nexus.

In order to flag POs from One-Time Vendors, a code called "OTV" would be configured as a GT Nexus ID on Sonae's ERP. All users from BUs that work with OTVs and FMT members would now have two logins – one for Sonae-Buyer profile and one for Sonae-Vendor profile. When a user from Sonae-Buyer profile logs into GT Nexus, they have access to all POs placed by Sonae to all the suppliers/vendors. However, when a user logs into GT Nexus with Sonae-Vendor profile, he can only have access to POs that have the GTN ID "OTV" and can only do vendor's actions, i.e., post vendor's milestones and create booking/Plan-to-Ship.

Vendors have two points of contact with Sonae: an initial one with sourcing teams and after placing the booking, there is a new point of contact that is Flow Management Teams. This had to be taken into account when defining the ownership of each action on GT Nexus.

On Figure 44, is possible to see the set of milestones that sourcing teams are responsible for posting on GT Nexus platform to provide visibility of the production process.

Figure 44 - Set of milestones that must be posted to provide visibility of One-Time Vendor production process

When production finishes, it is time to place the booking/Plan-to-Ship on GT Nexus platform. The ownership of this action is from flow management team as well as all the milestones that must be posted after placing the booking/Plan-to-Ship, Figure 45.
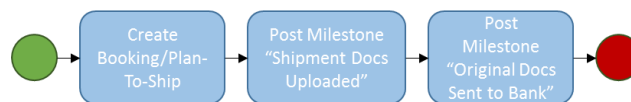
Figure 45 - Set of actions and milestones that must be done to provide visibility of One-Time Vendor exports process

This new process for one-shot vendors demanded training since the actions that sourcing teams and FMT had to now do on GT Nexus platform were completely different from what they were used to do with Sonae-Buyer profile.

An One-Time Vendor End-User Training-Manual was created to support and train the users. This end-user training-manual is exclusively oriented to OTV process on GT Nexus platform, Appendix VIII – One-Time Vendor End-User Training-Manual. Some Hands-On Sessions were also made to help users engaging on this new process.

5. RESULT ANALYSIS AND DISCUSSION

GTMS project's Go-Live was on 9th November 2016 and eleven months later is possible to see a fast evolution of this project through the following graphic results, on Figure 46.

Figure 46 - Monthly Evolution of the number of Purchase Orders on GT Nexus Platform

This graphic shows the evolution of the number of purchase orders placed on GT Nexus on a monthly basis. It shows a slow evolution until February since few suppliers/vendors were on-boarded, i.e., at this time, there were 20 suppliers on-boarded from IPBSL regions and none from China region.

On March, the number of POs placed started to increase due to the on-boarding of more suppliers from IPBSL regions and in April, the IPBSL on-boarding process was completed, meaning that 79 suppliers from IPBSL regions were on-boarded on GT Nexus platform.

Between May and June, the growing tendency for IPBSL regions slowed down a bit due to the Factory Codes issue that led vendors and members of Sonae's internal teams to feel uncomfortable placing POs on GT Nexus platform, due to the risk of having delays on the cargo shipping.

In May starts the on-boarding of vendors from China Regions, representing a total of 418 vendors. The on-boarding was divided in 5 different phases:

- Pilot: 11 vendors;
- Phase 1: 73 vendors;
- Phase 2: 98 vendors;
- Phase 3: 130 vendors;
- Clean Up Phase: 103 vendors.

China's Pilot phase started in May and lasted until July since there were some final changes to do regarding EDI integrations between GT Nexus platform and Kuehne+Nagel platform (3PL for Sonae's inbound transactions with China as origin). In July, it was finally possible to have an end-to-end seamless process, meaning the activation of the vendors from Phase 1 could be started, resulting in a very high increase of purchase orders on GT Nexus platform.

Regarding IPBSL regions, after June, the growing tendency continues to rise as users were feeling increasingly more comfortable with this platform.

In September, there was a total of 1620 purchase orders on GT Nexus, 79 (100%) on-boarded vendors from IPBSL regions and 96 (23%) on-boarded vendors from China region.

As referred before, GT Nexus platform aims to replace the old system used by Sonae to manage imports process, named Workflow Comercio Internacional (WFCI). At the end of GTMS project, it is expected that WFCI is discontinued and every PO will be managed through GT Nexus platform. So, it was also important to measure the volume of purchase orders on GT Nexus platform vs. the volume of purchase orders on WFCI, and the respective evolution is reflected on Figure 47.
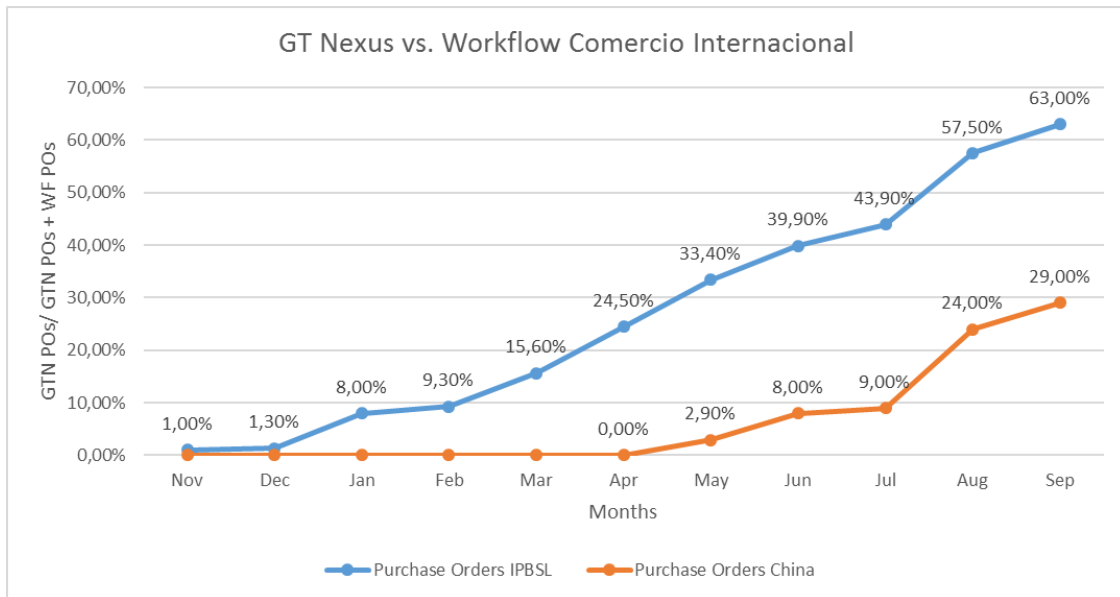
Figure 47 - GT Nexus Platform vs. Workflow Comercio Internacional monthly evolution

After eleven months since GTMS project's Go-Live, more than 50% of the total placed POs for IPBSL regions have been placed though GT Nexus platform.

For China region, after 5 months, nearly 30% of the total POs placed for China vendors have been placed through GT Nexus platform.

This reflects a very successful change management and the success of this project in what regards managing the imports process.

However, during this eleven months, the project team encountered several issues and internal resistance regarding the implementation of GT Nexus platform. Sonae's teams felt that the process hadn't been properly mapped and that was a lack of involvement of key team members. Additionally, teams felt that the fact that the entities had to do their actions directly on the platform had some consequences such as lack of control of the process and implied some rework since they had to review the information input on the platform by other entities.

As for 3PL, they didn't present much difficulties: 2 of the 3PL, Damco and Kuehne & Nagel had an EDI integration developed with GT Nexus platform, meaning that they didn't had to do any direct action on GT Nexus; as for Agility, the 3PL that had to do the actions via User Interface (UI), they had a very reduced volume of processes and every time they had to do some action on the platform, they would contact the project team for instructions, if necessary. Customs Brokers only had to post four milestones and upload some documents, so the range of actions that they had to ensure on GT Nexus platform was very reduced and they didn't present much difficulties. Suppliers/Vendors, however, had lots of difficulties since there was a large

time gap between the on-boarding process and the time that they had to start to work with GT Nexus platform. Vendor On-boarding Champions had a crucial part on this change management related to suppliers/vendors since they conveyed all their doubts to the project team, making possible to unlock and solve several situations.

After eleven months since GTMS' Go-Live, it was not possible to make a quantified analysis regarding the impact of the implementation of this tool since metrics were still being defined and there wasn't any support system to analyse massively all the data that was on GT Nexus platform – it was still being developed. However, the positive feedback started to increase from operational teams, mostly regarding the amount of work that had been reduced since they didn't have to input information from other entities, giving them time to be more critical about the process.

6. CONCLUSIONS

The main goal of this dissertation project was to create and implement new processes in order to create a seamless imports process through a new collaborative platform implemented on Sonae business units.

Since it was a collaborative platform, there were challenges that affected all stakeholders, namely Sonae, vendors, 3PL and customs brokers, and to overcome them, it was important to keep an open dialogue with all parts and always manage expectations regarding the solutions found.

At the beginning of this project, Sonae teams were very uncomfortable with the tool since it was completely different of what they were used to: in this tool, there was an active engagement of stakeholders and they would do actions directly on the platform, and Sonae teams didn't know what to expect about that. When using Workflow Comércio Internacional (WFCI), teams had to keep an offline communication with other entities (suppliers, 3PL and Customs Brokers) and then reflect imports process milestones of all the stakeholders on WFCI in order to provide visibility of the process.

When GTMS project had its Go-Live, there were numerous processes that hadn't been defined and that led to some difficulties in the beginning. But weeks later, all these processes started to be defined and standardized through the teams and the project team really insisted on refreshing people's know-how about the platform, resulting on an increasing level of confidence on using GT Nexus platform.

GTMS project is far from over and there are still two releases ahead that will change the paradigm of Sonae regarding negotiation, imports and exports process. So, it is important to define some lessons learned and best practices from this first release and use them on Release 2 and 3. These are the lessons learned and best practices gathered during the first release of GTMS project and which can be used on the next two releases in order to expedite the change management and guarantee a successful implement of the releases.

6.1.1. Lessons Learned

- It is a critical factor to have an active BU participation to define the necessary processes and workflows to consider on a To-Be reality. On this first release, there was a large number of processes undefined due to the lack of participation of key team members of

operational teams. An active engagement of the members from every layer that constitute a business unit is crucial to not miss certain details that might compromise the process as a whole.

- Regarding User-Acceptance Tests, most of the times, teams create the acceptance tests based on high-level processes and do the validation of each technical part of the process. If all the tests are validated as positive, they assume that the end-to-end process is validated as positive as well but, unfortunately, that does not always work that way. It is important, after validating each technical part of the process, to make sure that the whole process is seamless and logical, otherwise, that will only be validated after project's Go-Live and will have a much bigger impact.

- Ensure weekly follow-up with Sonae teams, 3PL and customs brokers, involving GT Nexus and support teams. It is important to tackle every issue as soon as possible and to maintain an open channel of communication doing frequent status meetings. Additionally, this ensures continues improvement since teams and stakeholders can suggest more efficient solutions.

6.1.2. Best Practices

- **Power Users (1 or more per BU**) - key business teams member that ensure the following functions:

  - Prepare and execute test scenarios for User-Acceptance Testing (UAT);

  - Participate actively on status meetings and provide frequent feedback;

  - Train Business Unit (BU) end-users;

  - Ensure BU' users utilization of the platform;

  - Ensure POs information accuracy (dates and quantities);

  - Clarify any process or functional questions raised by BU's users, with shadow support from the project team;

  - Actively keep Cornerstone Knowledge area up to date.

- **Vendor On-boarding Champion (one per BU**) - key business team member that ensure the following functions:

  - Ensure and enable the contacts between the vendors and GT Nexus/project team;

  - Keep the list of eligible vendors to work with GT Nexus platform updated;

- o Communicate any change on the vendors list to the project team;

- o Ensure vendors participation in the training and in any other project related tasks;

- o Ensure vendors do their actions on time on GT Nexus platform, during the pilot (vendor follow-up);

- o Follow-up on vendor's utilization of the system – milestone posting and booking/Plan-to-Ship creation.

- **Cornerstone**: having a knowledge area in Cornerstone dedicated to GTMS provides stability to all users since they can find there all relevant information and support material to help engaging on GT Nexus platform.

- **Hands-On Sessions:** the Hands-On Sessions were a successful initiative since users could do their actions using real information and could expose their doubts since the project team promoted an informal environment of training.

- **End-User Training-Manual:** the End-User training-manuals were a great initiative since they were process oriented and not functional oriented, i.e., these manuals explain the process and how to do it on GT Nexus, and, usually this kind of support materials only show the functionalities. This is a support material totally adapted to each team reality, with warnings and notes that users must take into account. The goal was that a person without any knowledge of how to work with GT Nexus platform could do an end-to-end process just by reading the manual and that was successfully achieved.

- **Reporting:** Although GT Nexus provides a reporting module for users to create their reports, this module is not intuitive and it is very complex to use it. Due to this complexity and the amount of time needed to create a report, the project team created standardized reports that all users of every team can use, and they guarantee that all the information needed is there. This allows that users don't have to waste time creating reports and ensures that the information is displayed and traded between teams and entities is sent in a standardized way.

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APPENDIX I – IMPORTS PROCESS MILESTONES

Table 8 - Milestones Description and respective Business Unit Ownership

Milestone	Description	Business Unit
PO Confirmed	The milestone Purchase Order (PO) Confirmed, is an automatic milestone that is triggered when a certain PO is submitted on Sonae's ERP and, consequently, on GT Nexus platform.	All
LC Created	Letter of Credit (LC) Creation milestone is posted by Flow Management Teams (FMT) when the LC is created on bank's system.	All
LC Confirmed/ Swift Uploaded	When the LC is confirmed, a swift is issued by the bank to validate the payment to the supplier. This milestone is posted by FMT.	All
Technical Documentation Accepted	This milestone is posted by Sonae's internal quality teams and reflects a process related to the manufacturing of new products. The process and the materials used to produce it must be validated by Sonae's quality teams.	Worten, Food, Fresh-Food, Wells, Bazaar, Bazarão and Home & Textile
Artworks Submitted	The artworks contain the design of the products. This milestone is posted by BU's sourcing teams when the artworks are submitted to the suppliers/vendors.	Home & Textile and Bazaar
Shipping Marks Submitted	The shipping marks are used to label the cartons for an easier identification of what's inside of each. These shipping marks are submitted to the suppliers/vendors by BU's sourcing teams and they are responsible for posting the respective milestone.	Home & Textile and Bazaar
PP Sample Accepted/ Rejected	Pre-Production (PP) Sample is the first sample of a product submitted by the supplier/vendor for Sonae. Its approval means that the supplier can start the manufacturing of the product and it is posted by Sonae internal quality teams.	Fashion MO & Zippy and Sports & Sports Brands
Lab Tests Definition Uploaded	There are certain lab tests that must be done in order to validate if the materials used to manufacture the products are within the acceptable standards. The definition of these tests are ensured by Sonae's internal quality teams, that are responsible for uploading them on GTN platform. When they upload it, this milestone is then triggered automatically.	Fashion MO & Zippy and Sports & Sports Brands
Lab Tests Report Uploaded	The entity responsible for running the lab tests are Sonae's external quality teams that have local labs and after they run them, a report is then submitted on GTN platform to Sonae's	All

	internal quality teams. This report must be uploaded on GTN platform and it will trigger automatically this milestone.	
Lab Tests Accepted/ Rejected	After analysing the report submitted, Sonae's internal quality teams decide if the lab tests are positive or negative and they are responsible for posting this milestone.	All
IPC/IPI Report Uploaded	The Initial Production Check (IPC) / Initial Production Inspection report is done by Sonae's external quality teams for electronic products and submitted to Sonae's internal quality teams, triggering this milestone.	Worten
IPC/IPI Accepted/ Rejected	IPC/IPI approval or rejection determines if the production can start or not. This decision is made by Sonae's internal quality teams and they reflect it on GTN platform by posting this milestone.	Worten
Care Label Submitted	Care label is what "provide guidelines to consumers about apparel care, and the best cleaning procedures to be used for a particular combination of fabric, thread decoration and construction techniques" (Coats Group, 2018) and those are created and submitted to suppliers/vendors by BU's sourcing teams, triggering this milestone.	Bazaar, Home & Textile, Fashion MO & Zippy and Sports & Sports Brands
Material Available	This milestone is posted by the supplier/vendor and flags the availability of raw material to start production.	All
Production Started	This milestone is posted by the supplier/vendor and flags the start of production.	All
DuPro Report Uploaded	During Production (DuPro) Report Uploaded milestone must be posted by Sonae's external quality teams and determines if the production is within quality standards.	Worten, Wells, Bazaar, Bazarão and Home & Textile
DuPro Accepted/ Rejected	The report is then approved or rejected by Sonae's internal quality teams, and they must reflect that decision using this milestone.	Worten, Wells, Bazaar, Bazarão and Home & Textile
Golden Sample Submitted	The Golden Sample is submitted/sent to Sonae's internal quality teams and it must be posted by supplier/vendor.	Fashion MO & Zippy, Sports & Sports Brands and Worten
Golden Sample Accepted/ Rejected	After receiving the physical golden sample, Sonae's internal quality teams can either approve or reject it and that decision is reflected on this milestone.	Fashion MO & Zippy, Sports & Sports Brands and Worten

Pre-Shipment Report Uploaded	Sonae's external quality teams are responsible for building the Pre-Shipment report and submit it to Sonae's internal quality teams for revision, on GTN platform, triggering this milestone.	Worten
Pre-Shipment Accepted/ Rejected	This report is then approved or rejected by Sonae's internal quality teams and they reflect that decision on this milestone.	Worten
FRI Report Uploaded	Sonae's external quality teams are responsible for building the Final Random Inspection (FRI) report and submit it to Sonae's internal quality teams for revision, on GTN platform, triggering this milestone.	All
FRI Accepted/ Rejected	This report is then approved or rejected by Sonae's internal quality teams and determines if the goods are ok to be shipped, reflecting that decision by posting this milestone.	All
OK for Quality Control	Some BUs have their internal quality control platform and asked, in case all the applicable quality control events were positive in their internal platforms, if they could reflect it using only this milestones, that sums up all the quality control process made during the production of the ordered goods.	Fashion MO & Zippy and Sports & Sports Brands
Booking/ Plan-to-Ship	The booking/Plan-to-Ship is an automatic milestone triggered when the supplier/vendor creates it on GTN platform.	All
Booking Confirmed	This milestone must be posted by 3PL and means that booking/Plan-to-Ship was approved.	All
LS Report Uploaded	Sonae's external quality teams are responsible for building the Loading Supervision (LS) report and submit it to Sonae's internal quality teams for revision, triggering automatically this milestone.	All
LS Accepted/ Rejected	This report is then approved or rejected by Sonae's internal quality teams, and they reflect the decision on this milestone.	All
OK for Inspection Certificate	This is posted by Sonae's internal quality teams and is related to an inspection certificate.	Worten, Food, Fresh-Food, Wells, Bazaar, Bazarão and Home & Textile
Cargo Ready for Delivery	This is an automatic milestone that reflects information input on booking/Plan-to-Ship regarding the date that supplier predicted to have the cargo ready.	All
Cargo Received at CFS	This milestone is posted by 3PL when the cargo is received on CFS.	All
Cargo Received at CY	This milestone is posted by 3PL when the cargo is received on CY.	All

Cargo Shipped	This milestone is posted by 3PL when the cargo is shipped.	All
Shipment Docs Uploaded	This milestone is posted by the supplier/vendor when he uploads the shipment documentation on GTN platform.	All
Original Docs Sent to Bank	This milestone is posted by the supplier/vendor when he sends the original documentation to the bank.	All
Original Docs Received	This milestone is posted by FMT when they receive the original documentation sent by the supplier/vendor.	All
Shipment Docs Validated	This milestone is posted by FMT when the documentation is validated and ok.	All
Cargo Arrived at Pier	This milestone is posted by 3PL when the cargo arrives to the pier.	All
Cargo Arrived at Place	This milestone is posted by 3PL when the cargo arrives to the location where customs clearance will have place.	All
Customs Clearance Started	This milestone is posted by customs brokers when the customs clearance process starts.	All
Customs Clearance On Hold Started	This milestone is posted by customs brokers when the customs clearance process gets on hold for some reason – physical or documentational inspection.	All
Customs Clearance on Hold Finished	This milestone is posted by customs brokers when the customs clearance process is no longer on hold.	All
Customs Clearance Completed	This milestone is posted by customs brokers when the customs clearance process is finished.	All
Cargo Scheduled	This milestone is posted by FMT with a future date that corresponds to the date when the cargo is being delivered at Sonae's warehouses.	All
Cargo Delivered at Destination	This milestones is posted by 3PL when the cargo is delivered on Sonae's warehouses.	All
Cargo Reception Confirmed	This milestone is posted by BU's sourcing teams when they receive the information that the cargo is already at Sonae's warehouse.	All
QC at Destination	This milestone is posted by Sonae's internal quality teams and reflects the Quality Control (QC) made at Sonae's warehouse.	All

APPENDIX II – VENDOR TRAINING-MANUAL

Agenda

1	Introduction and Overview
2	Log into GT Nexus
3	**Order Management**
4	Work in Progress (WIP)
5	Plan to Ship (PTS)
6	Administration and Reports
7	Customer Support

Highlights of Order Management

- Sonae will send Purchase Orders/Amendments to GT Nexus from their ERP system.
- The orders will be automatically active and visible to vendors upon arrival in GT Nexus, and will be loaded to the WIP worksheet for entering milestones.
  - **Tip:** Vendors can subscribe the PO notifications to quickly identify all incoming POs.
- If any changes are needed on the PO, vendors should request PO Amendment from Sonae through standard communication channels, e.g. emails, phone, etc.
- The Sonae PO Number will be used as the PO Number in GT Nexus. POs sent by Sonae will follow the following pattern "**SON**" + "**PO Number**". Example: SON6878979
- Sonae and the Inspection Agents may upload the LC, Swift or inspection documents to the order folder. Once uploaded, these attachments are also visible to vendors.

How to Find a Purchase Order on the Orders Page

1. Click **Applications > Orders**.
2. Use search filters, e.g. entering the order number in the **PO#** field, and then click **Search**.
3. Click the **PO# link** to access the **Purchase Order** page.

How to Find a Purchase Order on the Orders Page

After clicking on the PO link, you will be able to see all the information related to it.

How to Find a Purchase Order on the Orders Page

In case you want to find all Sonae's purchase Orders, use the following criteria:

1. On **PO#** field, type 'SON', as in the example below;
2. Click on **Search**.

About the Order

- Use the **Order** to access all the details and documents related to the Order.

- The Order page contains 4 tabs:
  - **Overview:** The Overview tab provides the Order Details, Parties, Required Documents and Additional Terms.
  - **Line Items:** The Line Items tab provides detailed information for each Line Item on the Order.
  - **Related:** The Related tab provides access to all documents related to the Order. i.e., Packing Plans, Packing List, Invoices, etc.
  - **History:** The History tab provides all versions of the Order. And it allows users to compare different versions. Access the Purchase Order Amendment from the History tab.

About the Order

- **Overview**
  - The Order progress is displayed on the top. View **Quantity Ex-Factory, Quantity Book, Quantity Shipped, Quantity Received** and **Amount Invoiced**, at a glance.
  - View **Order Details** and **Parties**.
  - Access all required or additional documents attached by the Vendor.

About the Order

- **Line Items**
  - To view detail status of the Line Item, click on the applicable Line Item on the left, all Line Item Information is displayed on the right of the screen.
  - View the production milestones as the chart shown.

About the Order

- **Related**
  - All documents related to the Order are accessible via the **Related** tab. Click on a document link to access and view the document.

About the Order

- **History**
  - Access the **Purchase Order Amendment** from the History tab.

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Vendor Milestones

Please note that milestones refer to **events that occurred in a certain date** and **not to expected dates for the event.**

Note: These **milestones** should only be posted for some BUs, i.e., when required by the buyer. Also, the **milestone Production Finish Date Forecast is the only** milestone that should be posted with a future date. All the other ones must flag past events.

1. **Artworks Received**
   Vendor must post this milestone when artworks are required and received for vendor.
2. **PP Sample Submission (if required by Sonae)**
   Vendor must post this milestone when PP sample is required and submitted for Sonae evaluation.
3. **Material Available**
   Vendor must post this milestone when the raw material is available for production.
4. **Production Started**
   Vendor must post this milestone when the production starts.
5. **Production Finish Date Forecast**
   Vendor must post this milestone when starts the production and when required by Sonae, indicating the forecast date.
6. **Golden Sample Submission (if required by Sonae)**
   Vendor must post this milestone when the golden sample is submitted for Sonae evaluation.
7. **Production Finished**
   Vendor must post this milestone when finishes the production and when required by Sonae.
8. **Booking/Plan-to-Ship**
   This milestone is auto-created when the vendor performs the booking on GT Nexus platform.
9. **Cargo Ready Date**
   Vendor must input this date when creating the PTS when the cargo is ready to leave the facilities.
10. **Ships Doc Uploaded**
    This milestone is auto-created when the vendor uploads the shipping documents on GT Nexus platform.
11. **Original Docs Sent to Bank**
    Vendor must post this milestone when the originals are sent to the bank.

Highlights of Work In Process (WIP)

- Once the Purchase Order is Active, the PO Lines will load to the Work In Process (WIP) Worksheet.
- There will be one worksheet and Division based filter for this worksheet.
- Vendors are required to enter the following milestones on the WIP worksheets:

  - Artworks Received
  - PP Sample Submitted
  - Material Available
  - Production Started (Mandatory Milestone for Release 1)
  - Production Finish Date Forecast
  - Golden Sample Submitted
  - Production Finished
  - Original Docs Sent to Bank (Mandatory Milestone for Release 1)

Note: Except for the **Production Started** milestone, other milestones will be implemented gradually over a period of time

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How to Access WIP Worksheets

1. Click on **Applications (1a)**, then **Event Management (1b)**;

2. The **Event Management Worksheets** page will be displayed. There will be one worksheet and Division based filter for this worksheet. Click the **WIP Worksheet name link**.

How to Filter Line Data on the WIP Worksheet

The WIP milestones menu will be displayed.

3a. Click on ⊡ icon for the **PO** filter.   **OR**   3a. Click on ⊡ icon for the **Division** filter.

How to Filter Line Data on the WIP Worksheet

3b. On **like Any Of** field, type the PO number, SON#, or you can type 'SON" and the system will display all Sonae Purchase Orders.
3c. Click on **Query.**

OR

3b. Click on **Expand Value Filters;**
3c. Select the option **all unique values** and click on **Find;**
3d. Select the **Division;**
3e. Click on **Query.**

After these steps, the POs will be displayed.

How to Update Milestones on the WIP Worksheet

4. Select the PO lines that will be updated;

Note: In the example below, the PO that will be updated is SON33366769. To select both lines of the PO, user ctrl key and click on the respective lines.

5. Scroll right and you will find the milestones fields:
   5a. Click on the ▦ icon and select a date;
   5b. Click on the ▾ icon and it will populate the milestone date for all the selected PO lines.
6. Click on the ▦ icon to save the data entry.

Additional Resources

Access the "Event Management Guide" to view detailed steps related to Work In Progress.

- Event Management Overview
- Worksheet Tools
  - How to use the closed Rows Filters
  - How to search the Worksheet
  - How to batch update the Worksheet

Additional Resource Guides are located on the **Resources** section of your **Home** page.

Agenda

1. Introduction and Overview
2. Log into GT Nexus
3. Order Management
4. Work in Progress (WIP)
5. Plan to Ship (PTS)
6. Administration and Reports
7. Customer Support

Highlights of Plan to Ship (PTS) Request

- Vendors are required to create the Plan To Ship on GT Nexus Platform by selecting the order lines in **Open** status.
- All the relevant details like **Quantity, Packaging Dimensions and Weight** are entered by the Vendor while creating the Plan To Ship.
- Once vendors submit the Plan To Ship, the booking request will be sent to 3PL for confirmation.
  - The data present on PTS must be as accurate as possible and must be updated whenever it's necessary because 3PL will act accordingly with the information that is present on the plan-to-ship.
  - On the comment field available on the PTS, you can include information such cargo details, HS codes and contact details.
- If a booking is rejected, the supplier/factory will rectify and re-initiate the Plan to Ship request to the 3PL.

How to Create and Maintain Factory/Shipper Address?

In case you are working with different factories, it is **required** to setup the factories on the system, on the **Address Book**.

This information will be needed when creating the PTS and this setup must be done **prior to booking creation.**

a. Click on the **Tools** option;
b. Select **Address Book;**

How to complete a Plan to Ship

11. In the **Line Items** page, enter the **Item Qty** (Mandatory field) for each Line Item.

12. The **Package Count = nr outer cartons** (Mandatory Field) will then be automatically populated based on the **Quantity Per** specified on the PO.

Note: These are editable fields and should be edited when necessary.

Line Items

13. To enter the logistic details, please click on the ▶ icon.

How to complete a Plan to Ship

14. Enter the Weights and Dimensions:

14a. Enter **Length**, **Width** and **Height** (Mandatory Field) – The volume will be automatically determined based on the inputs of these fields.

14b. Enter **Net Net**, **Net** and **Gross** (Mandatory Field) Weights.

15. Click **Next** to go the **Preview** page.

Note : The system will validate if the booked quantity is higher than 5%, compared with PO quantity. In case of overage, the PTS won't be submitted until the quantity is rectified.

The default dimension unit is **meters** and should not be changed.

No need to input the volume, the system will determine it based on values input on **Length, Width and Height**.

How to complete a Plan to Ship – Partial Booking

To do a **partial booking/Plan-To-Ship**, i.e., create a PTS for only certain SKUs that are on the Purchase Order, it is **possible to delete the lines/SKUs when creating the Plan-To-Ship.**

16. In the **Line Items** page, please select the line items/SKUs that **won't** be included on the Plan-To-Ship;

17. Click on the **Actions** option;

18. Select the option **Delete**;

19. Click on **OK**;

20. Click **Next** to go the **Preview** page.

How to complete a Plan to Ship

21. In **Preview** page, click **Validate** to check if there are any validation errors.

Note: Validation errors message will show on top of document. Supplier needs to click **Edit** to revise the errors.

22. Click **Submit**. Plan to Ship document is shown:

- **Buyer Review Pending** for Sonae's validation; In this case, **3PL** will only have visibility of the PTS once Sonae submits it, after validation.

- **Active** when the PTS is sent to the 3PL for review and confirmation.

The data present on PTS must be as accurate as possible and must be updated whenever it's necessary because 3PL will act accordingly with the information that is present on the plan-to-ship.

Every time the PTS is updated, the field(s) that were updated should be mentioned on the comments field present on the PTS.

Tip: Click **Tools** to view document history.

Tip: Click **Edit** to revise the document before approval.

Note Once the PTS has been submitted, it will be locked until an acceptance or rejection message is received from the 3PL.

How to print the Shipping Order

1. Click on **Applications**;
2. Choose the option **Plan To Ship**;
3. Define a criteria to search the PTS – PO number, booking number, ..., (3a) and click on **Search** (3b);
4. Click on the **Request Ref Number** link.

Must be the one with the *Accepted* status

How to print the Shipping Order

5. Click on **Tools**;
6. Select the option **View PDF**;

Additional Resources

Access the Factory Management Guide to view detailed steps related to Plan to Ship request.

- How to View Plan to Ship
- How to View Plan to Ship Folder
- How to Subscribe Plan to Ship Email Notification

Additional Resource Guides are located on the **Resources** section of your **Home** page.

Agenda

1	Introduction and Overview
2	Log into GT Nexus
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5	Plan to Ship (PTS)
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GT Nexus Organization Administrator

- The GT Nexus Organization Administrator is a user of the platform who is responsible for the overall administration of the company's account. This includes adding new users, managing user profiles, security and task flows, resetting passwords, and running reports. The appropriate security rights must be setup in the GT Nexus Platform for the account administrator.
  - User Management
  - User Group Management

Access the "Administrator: User Management" and the "Administrator: Additional System Administration Features" Guide to view details related to the Administrator role.

Additional Resource Guides are located on the **Resources** section of your **Home** page.

About Reports

- GT Nexus provides users with a comprehensive Reports feature. The Reports feature assist users with daily workflow. Users can schedule reports to run on a specific date and time, determine how often you would like the report to run and who should receive it, specify the format for distribution, i.e., Excel, HTML, etc., design custom reports by using one of the available templates.
- Below is a list of useful reports available to users on the GT Nexus Platform.
  - PTS Created, Waiting for 3PL Response
  - PTS Accepted / Rejected

Access the **GT Nexus Reporting Tool Guide** to view details related to Reports in the GT Nexus Platform.

Additional Resource Guides are located on the **Resources** section of your **Home** page.

Figure 48 – Vendor Training-Manual

APPENDIX III – VENDOR HANDOUTS

Figure 49 - Vendor Handout - English Version – 1st Page

Figure 50 - Vendor Handout - English Version – 2ⁿᵈ Page
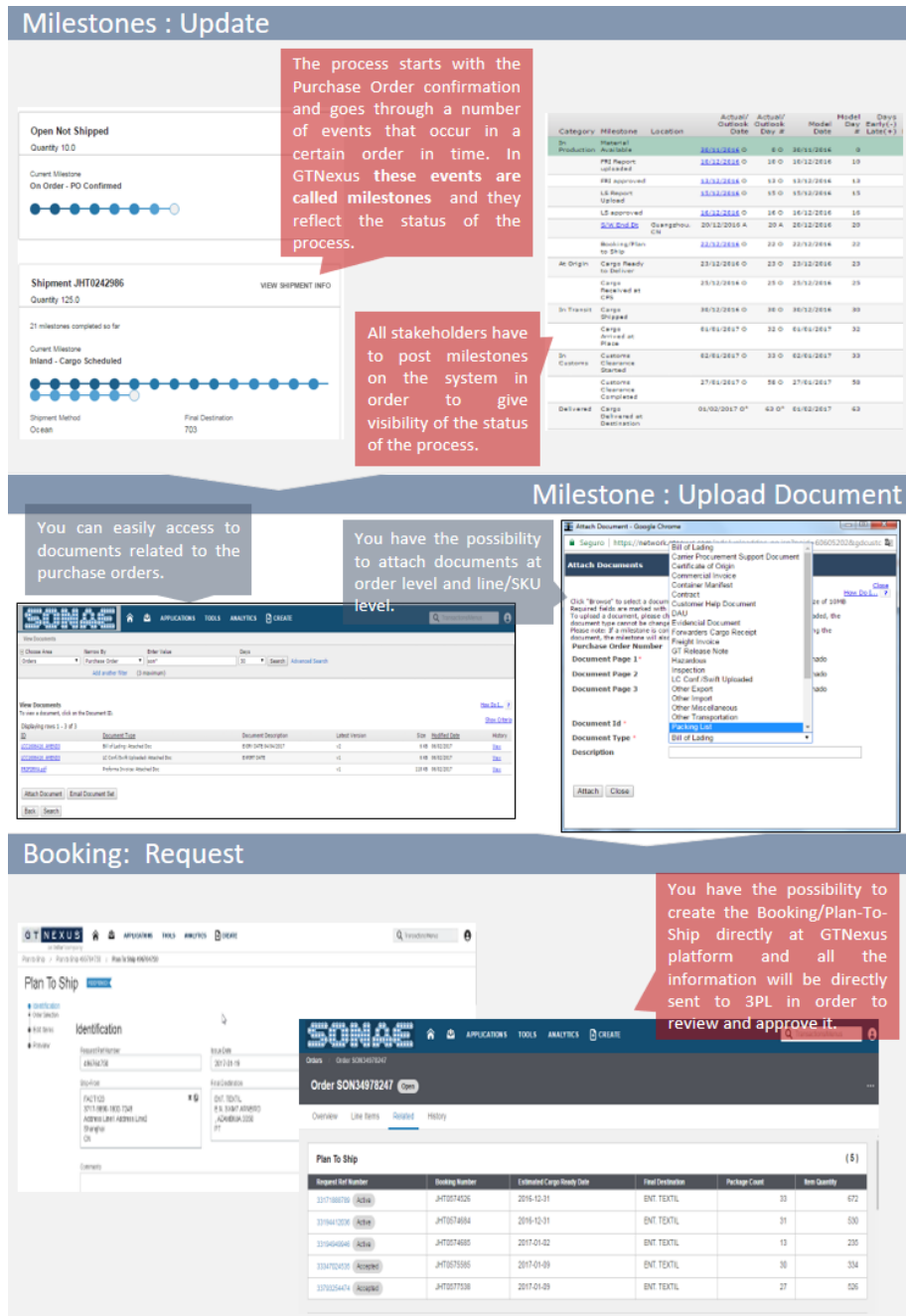
Figure 51 - Vendor Handout - English Version – 3ʳᵈ Page

Vendor onboarding into GTNexus

Registration & Activation

- Vendor seminars which explain in detail the process and clarifies all questions
- Follow-up for registration documents
- Registration documents processing by GT Nexus

First Transactions

- Create users
- Distribute training material
- Participate in the training session
- Monitor first transaction to confirm all setups as correct.
- Global support available to help you with all your questions

How is the registration process?

GTNexus contacts trading partner		Vendor starts the registration process		GTNexus reviews the registration form + legal agreements		Technical set up in progress	
1	2	3	4	5	6	7	8
	Registration link sent to trading partner		Registration form completed by the trading partner		Creation of the org of trading partner		Registration form completed: awaiting training

Contacts

GT NEXUS
an **Infor** company

Website: www.gtnexus.com

Customer Support:
Calling from Asia:
China: +86 755 8830 9265
Hong Kong: +852 2111 4039
Sri Lanka: +94 112 408408
India: +91-80-49060371
Calling from all other locations:
+1 510 550 7404
Email: service@gtnexus.com

SONAE

Website: https://www.sonae.pt/en/

Sonae Team contacts:

<please include before sharing with supplier>

Figure 52 - Vendor Handout - English Version – 4th Page

Figure 53 - Vendor Handout - Portuguese Version – 1st Page

Figure 54 - Vendor Handout - Portuguese Version – 2nd Page

Figure 55 - Vendor Handout - Portuguese Version – 3rd Page

GTNexus: Onboarding de Fornecedores

Registo e Ativação

- Realização de seminários, onde é explicado todo o processo e esclarecidas todas as possíveis questões;
- Acompanhamento do processo de registo;
- Processamento de documentos de registo pela GT Nexus.

Primeiras Transações

- Criação de *users*;
- Distribuição de manuais de formação;
- Participação nas sessões de formação;
- Monitorização das primeiras transações para confirmar se o *setup* foi corretamente efetuado;
- Suporte global disponível para ajudar com qualquer questão.

Como funciona o processo de registo?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Acima da linha:
- (1) GT Nexus contacta o fornecedor
- (3) Fornecedor inicia o processo de registo
- (5) GTNexus revê o formulário de registo + contratos legais
- (7) GTNexus inicia a configuração técnica

Abaixo da linha:
- (2) GT Nexus envia link para registo para o fornecedor
- (4) Fornecedor preenche formulário de registo
- (6) GTNexus cria uma Org para o fornecedor
- (8) Processo de registo finalizado. Aguardar formação.

Contactos

GT NEXUS
an **Infor** company

Website: www.gtnexus.com

Apoio ao Cliente:
Calling from Asia:
China: +86 755 8830 9265
Hong Kong: +852 2111 4039
Sri Lanka: +94 112 408408
India: +91-80-49060371
Calling from all other locations:
+1 510 550 7404
Email: service@gtnexus.com

SONAE

Website: https://www.sonae.pt/en/

Sonae Team contacts:

<please include before sharing with supplier>

Figure 56 - Vendor Handout - Portuguese Version – 4th Page

Figure 57 - Vendor Handout - Chinese Version – 1ˢᵗ Page

Figure 58 - Vendor Handout - Chinese Version – 2nd Page

Figure 59 - Vendor Handout - Chinese Version – 3ʳᵈ Page

Figure 60 - Vendor Handout - Chinese Version – 4th Page

APPENDIX IV – END-USER TRAINING-MANUAL – SOURCING AND QUALITY TEAMS

GTMS
Global Trade Management System

Introdução
GTMS
JULHO, 2017

3

Agenda – Parte I

1. O que é o GTMS?
2. Quem é a GT Nexus?
3. Quais são as grandes alterações com a implementação do GTMS?
4. Novo processo de importação em GT Nexus

4

1. O que é o GTMS?
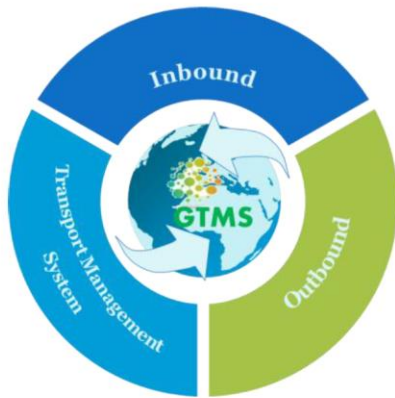
- Visibilidade total sobre toda a cadeia de abastecimento;
- Centralização dos processos de *Inbound* e *Outbound;*
- Transporte marítimo, aéreo e multimodal;
- Plataforma colaborativa de fornecedores, compradores, prestadores de serviços logísticos, despachantes e outros;
- Centralização do meio de comunicação e partilha de documentação e informação;
- Substituição do WFCI (WorkFlow).

5

1. O que é o GTMS?

No caso das importações e aquisições intracomunitárias a ferramenta permitirá **maior visibilidade de todos os fluxos**, um maior **controlo e capacidade de atuação** sobre os processos. Vai ser possível acompanhar os processos ao nível do SKU.

Fator crítico de sucesso: Envolvimento dos nossos parceiros

Para as exportações, o grande objetivo é aprendermos as melhores práticas do mercado e adaptá-las à realidade da Sonae, com a preocupação de melhorar e harmonizar processos para todas as unidades de negócio.

Fator crítico de sucesso: Garantir alinhamento com o B2B

Para a gestão de transportes, esperamos que a ferramenta nos permita alcançar uma maior eficiência na gestão dos mesmos e na sua negociação, uma vez que centraliza toda a gestão de fretes, controlo de contratos e *bidding* numa única ferramenta.

Fator crítico de sucesso: Analise do custo beneficio para ativação de cada parceiro

6

2. Quem é a GT Nexus?

GT NEXUS
an Infor company

7

3. Quais são as grandes alterações com a implementação do GTMS?

Criação da PO

Criação da PO

Criação da PO

Simulador

Integração CSV

APPROVED

Integração

RETEK

GTNexus

Integração

Partilha centralizada de informação

Alteração da PO

APPROVED

Integração

RETEK

Durante a **Release 1**:

1. As POs devem ser <u>aprovadas</u> sempre em <u>RETEK</u> para seguir para GTNexus;

2. <u>Não há fluxo de informação bidirecional</u>, por isso qualquer alteração à PO deve ser realizado em RETEK;

3. Inexistência de WFCI.

Agenda – Parte IV

Agenda – Parte IV

Agenda – Parte IV

31

1. Como aceder?
1.1. Login

Bem-vindo

Introduza as credenciais de Acesso Único abaixo

Domain:	MCH ▾
Nome de Utilizador:	fmbarros
Senha:	••••••••

Entrar em Sessão

Selecionar Língua ▾

Acesso à ferramenta

Cada user terá que usar as suas credenciais Sonae para aceder à sua área.
Cada acesso vai ser parametrizado tendo em conta a entidade que acede – Buyer, Vendor, 3PL, Inspection Parties e Customs Brokers.

Link de acesso:
https://federation.sonaecenter.pt/oamfed/idp/initiatesso?providerid=https://sso.gtnexus.com/sp/101000

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1. Como aceder?

1.2. Como criar um pedido de acesso via Service Desk

Atendimento ao cliente
- Criar Registo no HD Sistemas Informação
- Criar Registo noutro HD
- Criar Pedido de Acesso a Sistemas e Aplicações
- Iniciar sessão remota

1

Escolha utilizador **2** Escolha Aplicação/Sistema **3** Criar novo ou Modificar/Acrescentar Acesso

anterior

Pesquisar aplicação [Introduza um termo de pesquisa]   Pesquisar O

Aplicação/Sistema		Operação
Gestão Peças		Novo Acesso
Gestão Talho		
GicNET		
Google Analytics		
Google Tag Manger		
GPS - Gestão de Património Sonae		
Grupos de Acesso Querys R3		
GTMS / GTNexus		
Hadoop		
HIPChat		

◄ Previous Next ►

2

? Criação de GTMS / GTNexus

Login
- FMBARROS

Nome
- BARROS Mariana

Preencher formulário e submeter.

Email
- FMBARROS@sonaesr.com

Perfil Funcional
[Selecione um Perfil Funcional ▾]

Division
[Selecione uma Division ▾]

Business Unit
[Selecione uma Business Unit]

1. Como aceder?

1.3. Antes de começar

SONAE ⌂ 🗎 APPLICATIONS TOOLS ANALYTICS 📋 CREATE   Q Transactions/Menus

Home

1

Change Password
Contact Us
Display Settings **2**
...2/Community
Help
My Profile
Notifications
Logout

Trade Home

□ Choose Area
Orders

Display Settings

To customize the display of information in the system, please enter your settings and click "save".

Rows Per Page
This setting determines the number of results you will see on each View Page.

Number of rows   [100]   200 Maximum

Formats

Date   ○ MM/dd/yyyy   e.g. 05/02/2017
            ● dd/MM/yyyy   e.g. 02/05/2017
            ○ yyyy/MM/dd   e.g. 2017/05/02

Time   ○ 12 hour clock   e.g. 4:30 PM
            ● 24 hour clock   e.g. 16:30

Number   ○ Comma   e.g. 2,375.25
            ● Decimal   e.g. 2.375,25
            ○ Space   e.g. 2 375,25

Time Zone

Current Time Zone   [(GMT) Greenwich Mean Time ▾]

Alterar as definições dos formatos de datas, horas e numeração para que a análise dos dados em sistema se torne mais fácil e intuitiva.

Após alterar as definições, é necessário fazer log out para que as alterações sejam refletidas em sistema.

2. Conceitos e Regras:
Estruturação da ferramenta GT Nexus

A ferramenta GTNexus está estruturada por **objetos**: Purchase Order (PO), Plan-To-Ship (PTS), Shipping Order (SO) e Shipment.

Purchase order (PO)

A Purchase Order (PO) é um objeto de sistema que representa a ordem de compra que, após validada, é partilhada com os parceiros com todas as informações relevantes para a transação.

Booking/Plan-To-Ship (PTS)

Objeto do sistema que reflete a intenção de expedição do fornecedor, i.e., equivalente ao booking. O owner do PTS é o vendor e só este pode alterar o mesmo. **O Plan-To-Ship pode ter vários** estados: *New* (draft), *Buyer Review Pending* (quando existe aprovação por parte da Sonae), *Active* (quando o booking segue para o 3PL) e *Accepted* (quando é aceite pelo 3PL).

Shipping Order (SO)

Quando o Plan-To-Ship/Booking é submetido pelo vendor ao operador logístico e é acusada a sua receção do lado do 3PL, é gerada uma **Shipping Order (SO).** Esta SO reflete os dados que se encontram no PTS e o status do booking – aceite, rejeitado ou pendente de alguma validação.

Shipment

O objeto Shipment corresponde ao embarque físico da mercadoria e, à semelhança da Purchase Order, contém todas as informações relevantes. Será um objeto partilhado com os parceiros que tenham alguma ação específica em sistema relativamente a este.

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3. Como pesquisar na plataforma
3.1. Pesquisa Rápida

Zona de Pesquisa Rápida

Nesta área, o user tem a possibilidade de realizar pesquisas de forma simples e rápida, selecionando o critério de pesquisa e o filtro a atribuir.

2 — Em 'Narrow By' é escolhido o filtro relativo ao objeto.

3 — Em 'Enter Value' poderá ser colocado um valor especifico ou parte de um valor + *. E.g.: SON*

4 — Em 'Days', a base temporal que está associada à pesquisa rápida é a **"Ship Window End"** = Data Negociada de Embarque

1 — Em 'Choose Area' é escolhido o objeto de pesquisa.

O período máximo permitido para um filtro de data é 90 dias

Atenção: Todas as Ordens de Compra com **data de embarque a ocorrer num período superior a 90 dias**, nunca irão aparecer na opção de pesquisa rápida.

Neste caso, ao selecionarmos 90 dias, a ferramenta só nos irá devolver todas as Ordens de Compra cujo o período de embarque está previsto acontecer num prazo inferior a 90 dias

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3. Como pesquisar na plataforma
3.2. Pesquisa Genérica

No caso de não sabermos um valor específico para pesquisar, é possível fazer uma pesquisa genérica, com os critérios apresentados na imagem ao lado.

Todas as ordens de compra da Sonae apresentam o prefixo 'SON'. Portanto, para uma pesquisa genérica, deveremos colocar em 'Narrow By' o critério *Purchase Order* e em 'Enter Value' o critério 'SON*' e a plataforma devolver-nos-á todos as POs ou Shipments, dependendo do objeto que escolhemos em 'Choose Area'.

3. Como pesquisar na plataforma
3.3. Pesquisa Avançada

Sempre que pretendermos fazer uma pesquisa com um filtro temporal diferente da Data Negociada de Embarque, deveremos utilizar a opção "Advanced Search" ou criar uma "Saved View". Este tipo de pesquisa também é válida para qualquer outro critério - geografia, tipo de transporte, organização (unidades de negócio), estrutura mercadológica, Reason Codes, entidades, e outras referências;

Poderá ser definida uma janela temporal tendo em conta uma referência – uma data em sistema ou uma milestone - *Select Reference Date + Rolling Window*, ou uma janela baseada em datas efetivas – *Date Range*.

As datas disponíveis poderão ser datas de milestones ou datas de sistema.

Atenção: No caso de termos POs com uma data negociada de embarque superior a 90 dias, estas não serão devolvidas pela pesquisa com o critério *Ship Window End*. Assim como POs sem qualquer update superior a 90 dias, estas não irão aparecer nas Saved Views com filtro à Last Modified Date (Order), o que terá uma probabilidade maior à medida que nos aproximamos do final da vida útil da transação.

4. Purchase Order

Purchase order (PO)

A Purchase Order (PO) é um objeto de sistema que representa a ordem de compra que, após validada, é partilhada com os parceiros com todas as informações relevantes para a transação.

Booking/Plan-To-Ship (PTS)

Objeto do sistema que reflete a intenção de expedição do fornecedor, i.e., equivalente ao booking. O owner do PTS é o vendor e só este pode alterar o mesmo. **O Plan-To-Ship pode ter vários estados:** *New* (draft), *Buyer Review Pending* (quando existe aprovação por parte da Sonae), *Active* (quando o booking segue para o 3PL) e *Accepted* (quando é aceite pelo 3PL).

Shipping Order (SO)

Quando o Plan-To-Ship/Booking é submetido pelo vendor ao operador logístico e é acusada a sua receção do lado do 3PL, é gerada uma **Shipping Order (SO).** Esta SO reflete os dados que se encontram no PTS e o status do booking – aceite, rejeitado ou pendente de alguma validação.

Shipment

O objeto Shipment corresponde ao embarque físico da mercadoria e, à semelhança da Purchase Order, contém todas as informações relevantes. Será um objeto partilhado com os parceiros que tenham alguma ação específica em sistema relativamente a este.

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4. Purchase Order
4.1. Como pesquisar uma Ordem de Compra - Order Header

Se pesquisarmos uma OC(s) específica, o filtro da data não é necessário.

A ferramenta tem 3 *layouts* pré definidos:
* **Order Header – Informação do header da PO;**
* Order Line – Informação à linha da PO/SKU;
* Order Line Item Shipment – Informação à linha da PO/SKU com detalhes do embarque.

Estes layouts apresentam graus de granularidade da informação diferente.

Contudo cada utilizador pode definir outros layouts.

O resultado da pesquisa é exibido com níveis de detalhe diferentes, consoante o layout utilizado.

	Purchase Order	Division	Type	Shipping Terms	Freight Payment Terms	Status	Order Class	Docs
	SON35613597	MC Casa	Cross-border	Free on Board	Collect	In Transit	Purchase Order	View
	SON36080233	MC Casa	Cross-border	Free on Board	Collect	In Transit	Purchase Order	View
	Select All							

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4. Purchase Order
4.2. Como pesquisar uma Ordem de Compra - Order Line

A ferramenta tem 3 *layouts* pré definidos:
- Order Header – Informação do header da PO;
- **Order Line – Informação à linha da PO/SKU;**
- Order Line Item Shipment – Informação à linha da PO/SKU com detalhes do embarque.

Estes layouts apresentam graus de granularidade da informação diferente.

Contudo cada utilizador pode definir outros layouts.

O resultado da pesquisa é exibido com níveis de detalhe diferentes, consoante o layout utilizado.

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4. Purchase Order
4.3. Como pesquisar uma Ordem de Compra - Order Line Item Shipment

A ferramenta tem 3 *layouts* pré definidos:
- Order Header – Informação do header da PO;
- Order Line – Informação à linha da PO/SKU;
- **Order Line Item Shipment – Informação à linha da PO/SKU com detalhes do embarque.**

Estes layouts apresentam graus de granularidade da informação diferentes.

Contudo cada utilizador pode definir outros layouts que se ajustem às suas necessidades.

O resultado da pesquisa é exibido com níveis de detalhe diferentes, consoante o layout utilizado.

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4. Purchase Order
4.4. Como ver toda a informação de uma Ordem de Compra (1/2) - *Overview*

No tab *Overview* é possível ver toda a informação associada ao Header da ordem de compra, e.g.: unidade de negócio, data negociada de embarque (*Ship Window End Date*), incoterm, modo de transporte e todas as entidades associadas à OC, e.g.: Sonae, fornecedor, operador logístico, …

4. Purchase Order
4.5. Como ver toda a informação de uma Ordem de Compra (1/2) - *Line Items*

No tab *Line Items* é possível ver toda a informação associada a um artigo/SKU, que varia conforme o artigo selecionado e.g.: quantidade, preço unitário, descrição, estrutura mercadológica, porto de embarque e descarga e quais as milestones já postadas que refletem o estado do processo de importação.

4. Purchase Order

4.6. Como ver toda a informação de uma Ordem de Compra (1/2) - *Related*

SONAE | APPLICATIONS TOOLS ANALYTICS CREATE | Transactions/Menus

Orders / Order SON35133683

Order SON35133683 `Open` !

Overview | Line Items | Related | History

Plan To Ship

Request Ref Number	Booking Number	Estimated Cargo Ready Date	Final Destination	Package Count	Item Quantity
35206632509 `Accepted`	TUT0251699	2017-02-24	ENT. VNR BLIGEIRO	2,364	29,

No tab *Related* podemos encontrar, caso já tenham sido criados, o booking do fornecedor (Plan-To-Ship), a Shipping Order que reflete os dados que se encontram no booking e o Shipment, criado pelo operador logístico, que tem todos os dados relativos ao embarque físico da mercadoria: portos, datas, dados logísticos,...

Shipping Orders

Shipping Order Number	Weight	Volume	Shipment Method	Origin	Cargo Ready Date	Destination	ETA Final Destination
35234526522 `Cancelled`	4,388.25	22.251	Ocean		2017-02-23	740	
35206632509 `Submitted`	4,388.25	22.251	Ocean		2017-02-23	740	

Shipments

Shipment Id	Container Number	Shipment Method	Carrier
TUT0063375	XINU1414069	Ocean	Damco

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4. Purchase Order

4.7. Como ver toda a informação de uma Ordem de Compra (1/2) - *History*

SONAE | APPLICATIONS TOOLS ANALYTICS CREATE

Orders / Order SON35133683

Order SON35133683 `Open` !

Overview | Line Items | Related | History

No tab *History*, os users podem verificar todas as alterações que a OC sofreu (Amendments) e qual a sua sequência e podem ainda verificar quais os campos específicos que alteraram.

Purchase Order Amendment `Applied`	2017-03-10	GT Nexus	View
Purchase Order Amendment `Applied`	2017-03-03	GT Nexus	View
Purchase Order `Active`	2017-03-03	GT Nexus	View

← →

Versions

③ COMPARE

	Version	Create Date
① ☑	0	2017-02-06
② ☐	1	2017-03-03
☑	2	2017-03-10

Changes between version 0 and version 2 ... ← →

Field	Original Value	New Value
Quantity for PO: SON35133683, Item: 003, 5082504	1,700	1,800
Ship Window Start Date for PO: SON35133683, Item: 003, 5082504	2017-03-13	2017-03-03
Ship Window End Date for PO: SON35133683, Item: 003, 5082504	2017-03-20	2017-03-10
Promised Delivery Date for PO: SON35133683, Item: 003, 5082504	2017-05-04	2017-03-25
Quantity for PO: SON35133683, Item: 002, 5082507	960	1,008
Ship Window Start Date for PO: SON35133683, Item: 002, 5082507	2017-03-13	2017-03-03
Ship Window End Date for PO: SON35133683, Item: 002, 5082507	2017-03-20	2017-03-10
Promised Delivery Date for PO: SON35133683, Item: 002, 5082507	2017-05-04	2017-03-25
Ship Window Start Date for PO: SON35133683, Item: 020, 5082509	2017-03-13	2017-03-03
Ship Window End Date for PO: SON35133683, Item: 020, 5082509	2017-03-20	2017-03-10

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4. Purchase Order
4.12. Milestones : O que são?

O acompanhamento do processo em GTNexus é feito assinalando milestones em sistema – **assinalam eventos chave do processo de importação.** As milestones são introduzidas na plataforma pelas várias entidades envolvidas no processo: Sonae, fornecedor, entidade de qualidade/inspeção, operador logístico e despachante.

By Order: PO Confirmed | Proforma Invoice Upload | LC Created | LC Confirm/Swift Uploaded | Technical Doc. accepted | Artworks Sub. | Artworks Received | Shipping Marks Sub. | PP Sample Submitted | PP Sample | Lab Tests Definiti Upload | Lab Tests Report Upload | Lab Tests | IPC/IPI Report | IPC/IPI | Care Label Sub. | Material Available | Production Started | Production Fin. Date Forecast | FRI Date Forecast | DuPro Report Upload | DuPro | Golden Sample sub | Golden Sample | Production Finish | Production Sample

By Order: Pre Ship Report Upload | Pre Ship test | FRI Report Upload | FRI | OK QC | Booking/Plan to Ship | Booking confirmed | LS Report Uploaded | LS/ULS | Ok for IC | Cargo Ready to deliver | Cargo Received at CFS | Cargo Received at CY

By Shipment: Cargo Shipped | Ship Docs uploaded | Ship Docs Validated | Original Docs send to bank | Original Docs Validated | Original Docs Received | Cargo Arrived at Port (PIER) | Cargo Arrived at Destination (Place) | Customs Clearance Started | Customs Clearance on Hold Started

By Shipment: Customs Clearance on Hold Finished | Customs Clearance Completed | Cargo Availability | Cargo Scheduled | Cargo Delivered at Destination | QC at Destination

Legend:
- Via Integration
- Manual Input
- Automatic Milestone Based on Doc Upload.
- Flow Management Teams
- Sonae Quality Teams
- Partners: Vendor Custom Brokers
- Business Units
- Sonae Logistics (WH)
- Partners: Sonae External Quality Partners
- Vendor
- 3PL

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4. Purchase Order
4.12. Milestones: O que são?

Unidades Negócio	Gestão de Fluxos	Qualidade
Proforma Invoice Upload; Care Label Submitted to Vendor;	LC Created; LC Confirmed/Swift Uploaded;	PP Sample Approved/Rejected; Lab Tests Definition Upload; Lab Tests Approved/Rejected; Golden Sample Approved/Rejected; FRI Report Upload; FRI Approved/Rejected; OK From Quality Control;

Fornecedor	Operador Logístico
PP Sample Submitted; Material Available; Production Started; Golden Sample Submitted; Booking/Plan-To-Ship; Shipment Docs Uploaded; Original Docs Sent to Bank.	Booking Confirmed; Cargo Received @ CFS; Cargo Received @ CY;

Quando são colocadas as milestones em sistema, é fulcral ter em atenção o objeto que estamos a considerar, i.e., se o evento a que a milestone se refere se está a dar antes ou depois do embarque da mercadoria.

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5. Booking/Plan-To-Ship

Purchase order (PO)

A Purchase Order (PO) é um objeto de sistema que representa a ordem de compra que, após validada, é partilhada com os parceiros com todas as informações relevantes para a transação.

Booking/Plan-To-Ship (PTS)

Objeto do sistema que reflete a intenção de expedição do fornecedor, i.e., equivalente ao booking. O owner do PTS é o vendor e só este pode alterar o mesmo. **O Plan-To-Ship pode ter vários estados**: *New* (draft), *Buyer Review Pending* (quando existe aprovação por parte da Sonae), *Active* (quando o booking segue para o 3PL) e *Accepted* (quando é aceite pelo 3PL).

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Quando o Plan-To-Ship/Booking é submetido pelo vendor ao operador logístico e é acusada a sua receção do lado do 3PL, é gerada uma **Shipping Order (SO).** Esta SO reflete os dados que se encontram no PTS e o status do booking – aceite, rejeitado ou pendente de alguma validação.

Shipment

O objeto Shipment corresponde ao embarque físico da mercadoria e, à semelhança da Purchase Order, contém todas as informações relevantes. Será um objeto partilhado com os parceiros que tenham alguma ação específica em sistema relativamente a este.

5. Booking/Plan-To-Ship
5.1. Como pesquisar um Booking/Plan-To-Ship

5. Booking/Plan-To-Ship
5.1. Como pesquisar um Booking/Plan-To-Ship

> **!** Dado que a Worten terá um fluxo extra de aprovação ao booking pela equipa de Gestão de Fluxos, a colocação de novos bookings pelos fornecedores deverá ser sempre verificado neste menu, selecionando no campo 'Status' a opção 'Buyer Pending Review'. A milestone 'Booking/Plan-To-Ship' apenas será gerada quando o booking assumir um estado de 'Active', i.e., após aprovação da equipa de GF.

5. Booking/Plan-To-Ship
5.2. Como criar um report que nos devolva os bookings pendentes

5. Booking/Plan-To-Ship

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5. Booking/Plan-To-Ship

5.2. Como criar um report que nos devolva os bookings pendentes

Reports

Reports	Bookings_Pendentes	Filter	Reset			Design a New Report

☆▾	Title	Description	Designed By	User Last Modified	Last Modified	Actions
☆	Bookings_Pendentes	🔒 Private	Mariana Barros *Sonae*	Mariana Barros	17 minutes ago	Open · Schedule

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Scheduled Reports

Report Scheduling for Sonae `Not Scheduled`   `Save`   **16**

Criteria Detail

Report Name   Bookings_Pendentes

Schedule Name   Bookings_Pendentes

Set Schedule

Frequency   ◉ Run Daily ▾
       ○ Run every ▢ days

When   Start Date 2017-06-23 17:11:06 GMT

Delivery Details

Empty Report Results   ☐ Supress Report Notification

Deliver to   Mariana Barros ✕

Additional Email Addresses   fmbarros@sonaesr.com ✕

Send Report As   Microsoft Excel ▾

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6. Shipping Order

Purchase order (PO)

A Purchase Order (PO) é um objeto de sistema que representa a ordem de compra que, após validada, é partilhada com os parceiros com todas as informações relevantes para a transação.

Booking/Plan-To-Ship (PTS)

Objeto do sistema que reflete a intenção de expedição do fornecedor, i.e., equivalente ao booking. O owner do PTS é o vendor e só este pode alterar o mesmo. **O Plan-To-Ship pode ter vários estados**: *New* (draft), *Buyer Review Pending* (quando existe aprovação por parte da Sonae), *Active* (quando o booking segue para o 3PL) e *Accepted* (quando é aceite pelo 3PL).

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O objeto Shipment corresponde ao embarque físico da mercadoria e, à semelhança da Purchase Order, contém todas as informações relevantes. Será um objeto partilhado com os parceiros que tenham alguma ação específica em sistema relativamente a este.

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6. Shipping Order

6.2. Como ver toda a informação de uma Shipping Order

7. Shipment

Purchase order (PO)

A Purchase Order (PO) é um objeto de sistema que representa a ordem de compra que, após validada, é partilhada com os parceiros com todas as informações relevantes para a transação.

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7. Shipment

7.3. Reason Codes : Como colocar Reason Codes

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7. Shipment

7.3. Reason Codes : Como colocar Reason Codes

7.3.1. Como priorizar um embarque

Pesquisar o embarque (shipment)

Clicar na opção *Update Reason Codes*

Poderá ser selecionada prioridade a nível de transporte – *Sea Road* – ou a nível de entrada no entreposto – *Warehouse Priority* -, ou ambos. Caso seja necessário priorizar tanto a nível de Sea-Road como de entrada no entreposto, deverá apenas ser selecionado o Reason Code – Sea Road e deverá ser referido, no campo de comentários, que o embarque é também prioritário a nível de agendamento no entreposto.

Caso o custo do Sea-Road seja apenas para imputar a alguma PO específica, essa PO deverá ser referida no campo de comentários.

7. Shipment
7.4. Como colocar milestones – Shipment Level

Unidades Negócio	Gestão de Fluxos	Qualidade
N/A;	Shipment Docs Validated; Original Docs Validated; Original Docs Received; Cargo Availability; Cargo Scheduled.	Quality Control at Destination Approved/Rejected.

Fornecedor	Operador Logístico	Despachante
N/A;	Cargo Boarded on Vessel; Cargo Shipped; Shipped (ASN); ETA Final Destination; Cargo Arrived at Pier; Cargo Arrived At Place; Cargo Delivered at Destination.	Customs Clearance Started; Customs Clearance on Hold Started; Customs Clearance on Hold Finished; Customs Clearance Completed.

Quando são colocadas as milestones em sistema, é fulcral ter em atenção o objeto que estamos a considerar, i.e., se o evento a que a milestone se refere se está a dar antes ou depois do embarque da mercadoria.

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7. Shipment
7.4. Como colocar milestones – Shipment Level

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8. Reporting - Layouts vs. Saved Views

1 Na opção "layouts", o utilizador deverá selecionar que campos pretende visualizar no seu relatório

2 Na opção "saved views", o utilizador poderá realizar filtros e incluir condições ao relatório (e.g.: milestones, unidade de negócio, filtros temporais, etc...)

8. Reporting
8.1. Como definir layouts?

Passos para a criação de layouts:
1. Expandir a opção de "Displaying rows";
2. Selecionar a opção "Configure";
3. Selecionar o nível de granularidade;
4. Identicar os campos a incluir no relatório;
5. Ordenar os campos pela ordem pretendida;
6. Atribuir um nome e guardar o layout.

8. Reporting
8.1. Como definir layouts?

Configure Layout For View Orders

Select "View by" Data Level

The data level you select will change the fields in Layout you can select below.

Available View Orders data levels:
- Order Header
- Order Line
- Order Line Item Shipment

Os campos disponíveis para Reporting irão variar consoante o nível de granularidade definidos.

Select Fields in Layout

All Fields

- - - - Order Information - - - -
Agent Context
Agent Sequence
Also Notify Address1
Also Notify Address2
Also Notify Address3
Also Notify Address4
Also Notify City
Also Notify Code
Also Notify Context
Also Notify Country
Also Notify Email
Also Notify Name
Also Notify Postal Code
Also Notify Sequence
Also Notify State
Assigned Factory Name
Bank Addr1
Bank Addr2
Bank Addr3

Selected Fields

Fields	Sort Order	Roll
Purchase Order	Ascending 1	PO Date
Division	None 1	
Type	None 1	
Shipping Terms		
Freight Payment Terms		
Status	None 1	
Order Class		

Select User Roles

All User Roles

Selected User Roles
Logistics Manager
Ordering Manager
Shipper Admin
Shipper Division Admin
Basic Visibility Read

New Layout Name *

Submit   Cancel

Passos para a criação de layouts:
1. Expandir a opção de "Displaying rows";
2. Selecionar a opção "Configure";
3. Selecionar o nível de granularidade;
4. Identicar os campos a incluir no relatório;
5. Ordenar os campos pela ordem pretendida;
6. Atribuir um nome e guardar o layout.

8. Reporting
8.2. Como criar Saved Views?

Criação de saved views:
1. Expandir a opção de "Displaying rows";
2. Selecionar a opção "Edit";
3. Poderá ser selecionado um filtro por tipo de documento ou por datas;
4. Poderão ser selecionados filtros por geografia, tipo de transporte, organização (unidades de negócio), estrutura mercadológica, Reason Codes, entidades, e outras referências;
5. Poderão ser selecionado filtros por milestones; (que já ocorreram ou que se encontram por ocorrer);
6. Associar o Layout pretendido e clicar em 'Submit';
7. Clicar em 'Save' para guardar a Saved View;
8. Atribuir um nome à Saved View e clicar em 'Save View';
9. Para fazer a partilha do report criado com outros users, clicar em 'Share'. Para agendar a receção do report atualizado, clicar em 'Schedule'.

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8. Reporting
8.2. Como criar Saved Views?

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8. Reporting
8.2. Como criar Saved Views?

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8. Reporting
8.2. Como criar Saved Views?

Criação de saved views:

1. Expandir a opção de "Displaying rows";
2. Selecionar a opção "Edit";
3. Poderá ser selecionado um filtro por tipo de documento ou por datas;
4. Poderão ser selecionados filtros por geografia, tipo de transporte, organização (unidades de negócio), estrutura mercadológica, Reason Codes, entidades, e outras referências;
5. Poderão ser selecionado filtros por milestones; (que já ocorreram ou que se encontram por ocorrer);
6. Associar o Layout pretendido e clicar em 'Submit';
7. Clicar em 'Save' para guardar a Saved View;
8. Atribuir um nome à Saved View e clicar em 'Save View';
9. Para fazer a partilha do report criado com outros users, clicar em 'Share'. Para agendar a receção do report atualizado, clicar em 'Schedule'.

A opção 'Share' permite fazer a partilha de um report (Layout + Saved View) com outros users.

A opção 'Schedule' permite agendar a receção de um report atualizado via email ou via plataforma. É possível configurar a receção do report com outros users e definir a frequência com que pretendemos recebê-lo.

8. Reporting
8.3. Export View

Após configurarmos o report pretendido, é possível exportar a informação do mesmo para um ficheiro Excel, clicando na opção 'Export View'.

9. Informação Adicional
9.1. *Milestones_Control_S&F* Report

Poderão encontrar na plataforma um **layout pré-definido**, criado com o fim de uniformizar os métodos de análise e de agilizar a experiência dos users na plataforma, podendo ser configurado de acordo com as necessidades específicas de cada utilizador. No mesmo poderão encontrar vários **atributos associados à ordem de compra** (fornecedor, descrição dos artigos, style, categoria, quantidades encomendadas, incoterm, POL), **ao embarque da mercadoria** (quantidades embarcadas, entreposto de destino, nº BL, nº contentor e shipment ID) e **milestones que refletem o estado do processo**, desde a aprovação da PO até à entrega da mercadoria no entreposto. Este layout tem a designação *Milestones_Control_S&F.*

9. Informação Adicional
9.1. *Milestones_Control_S&F* Report

Figure 61 - Business Units End-User Training-Manual

APPENDIX V – END-USER TRAINING-MANUAL – FLOW MANAGEMENT TEAMS

1. Preparação do processo de importação

2. Colocação do booking e preparação da mercadoria

3. Embarque da mercadoria

4. Chegada e entrega da mercadoria no entreposto

1. Preparação do processo de importação
1.1. WF vs. GTN

Atenção: Em GTN não existe o conceito de *Reserva*. Em GTN, os embarques poderão ser pesquisados pelo contentor – *Container* – que é o conceito mais agregador ou pelo *Shipment ID*, conceito mais desmultiplicado que apresenta um nível de granularidade tendo em conta o **contentor** e o **entreposto**.

Workflow (WF)	GT Nexus (GTN)
PI	N/A
Embarque	N/A
N/A	Shipment ID
SKU	Product Code
Shipment Type	Planned Mode/Mode
Data Negociada de Embarque (NSD)	Ship Window End
Incoterm	Shipping Terms
Código fornecedor	RETEK ID
Not Before Date (NBD)	PO ETA
Delivery Schedule	Cargo Schedule
N/A	Cargo Delivered at Destination

Milestone colocada pela GF: indica o agendamento da entrega em entreposto

Milestone colocada pelo OL e que indica a data de entrega real em entreposto.

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1. Preparação do processo de importação
1.2. Quais são as milestones da Gestão de Fluxos?

By Order: PO Confirmed, Proforma Invoice Upload, LC Created, LC Confirm/Swift Uploaded, Tecnical Doc. accepted, Artworks Sub., Artworks Received, Shipping Marks Sub., PP Sample Submitted, PP Sample, Lab Tests Definiti Upload, Lab Tests Report Upload, Lab Tests, IPC/IPI Report, IPC/IPI, Care Label Sub., Material Available, Production Started, Production Fin. Date Forecast, FRI Date Forecast, DuPro Report Upload, DuPro, Golden Sample sub, Golden Sample, Production Finish, Production Sample

By Order: Pre Ship Report Upload, Pre Ship test, FRI Report Upload, FRI, OK QC, Booking/Plan to Ship, Booking confirmed, LS Report Uploaded, LS/ULS, Ok for IC, Cargo Ready to deliver, Cargo Received at CFS, Cargo Received at CY

By Shipment: Cargo Shipped, Ship Docs uploaded, Ship Docs Validated, Original Docs send to bank, Original Docs Validated, Original Docs Received, Cargo Arrived at Port (PIER), Cargo Arrived at Destination (Place), Customs Clearance Started, Customs Clearance on Hold Started

Order Level

By Shipment: Customs Clearance on Hold Finished, Customs Clearance Completed, Cargo Availability, Cargo Scheduled, Cargo Delivered at Destination, QC at Destination

Legend:
- Via Integration
- Manual Input
- Automatic Milestone Based on Doc Upload.
- Flow Management Teams
- Sonae Quality Teams
- Partners:Vendor Custom Brokers
- Business Units
- Sonae Logistics (WH)
- Partners: Sonae External Quality Partners
- Vendor
- 3PL

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1. Preparação do processo de importação
1.2. Quais são as milestones da Gestão de Fluxos?
1.2.1. *LC Created*

LC Created

Objetivos:
- Identificar novos processos;
- Atribuir a milestone *LC Created.*

Ações:
1. Como identificar novos processos em GT Nexus – Definição da *Saved View*;
2. Como comparar a *Proforma Invoice* com a informação em GT Nexus;
3. Como colocar a milestone *LC Created.*

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1. Preparação do processo de importação
1.2. Quais são as milestones da Gestão de Fluxos?
1.2.1. *LC Created*

LC Created

View Orders

Displaying rows 1 - 50 of 1000 Total   Export View

Page 1 of 20

Saved Views: Save Edit   Show Criteria   Layouts   Delete   Configure
                                                            LC CONTROL

1

2 Date Criteria
Select the Rolling Window, or specify a Date Range for your search
Select Reference Date
Last Modified Date(Order)

○ Rolling Window   Last/Next ▾   90 ▾   Days

○ Date Range   From   To

Submit

Selecionar as origens.

3

☐ Geography
Origin   Country   Selected Locations
              Select One ▾

              City

BL/AWB Dest. Country   Selected Locations
              Select One ▾

              City

Port Of Load Country   Display Port
              –Select One–
              Available Ports of Load   Selected Ports of Load
              No Available Ports of Load   All

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1. Preparação do processo de importação
1.2. Quais são as milestones da Gestão de Fluxos?
1.2.1. *LC Created*

LC Created

Após definirmos a *Saved View*, aplicámos a mesma para que a ferramenta devolva todos os processos sem LC.

1. Preparação do processo de importação
1.2. Quais são as milestones da Gestão de Fluxos?
1.2.1. *LC Created*

LC Created

O passo seguinte é comparar a informação que se encontra na *Proforma Invoice* com a que se encontra em sistema. Para tal, corremos a *saved view* criada e verificamos se a proforma já foi anexada pela DC, **verificando se há uma data associada à milestone *Proforma Invoice.***

Clicamos em *View*.

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1. Preparação do processo de importação
1.2. Quais são as milestones da Gestão de Fluxos?
1.2.1. LC Created

1. Preparação do processo de importação
1.2. Quais são as milestones da Gestão de Fluxos?
1.2.1. LC Created

Após conferidas as quantidades e preços na PI com a informação que se encontra em sistema, é colocada a milestone **LC Created** que assinala o momento em que é submetida a carta de crédito para determinado processo. É a primeira milestone da responsabilidade da GF a ser colocada em sistema.

1. Preparação do processo de importação
1.2. Quais são as milestones da Gestão de Fluxos?
1.2.2. *LC Confirmed / Swift Uploaded*

Objetivos:
- Identificar processos a aguardar emissão de swift;
- Anexar swift.

Ações:
1. Como identificar novos processos a aguardar emissão de swift em GT Nexus – Definição da *Saved View*;
2. Como anexar o swift aos processos.

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1. Preparação do processo de importação
1.2. Quais são as milestones da Gestão de Fluxos?
1.2.2. *LC Confirmed / Swift Uploaded*

View Orders

Displaying rows 1 - 50 of 1000 Total   Export View

Page 1 of 20

Saved Views: Save Edit   Show Criteria   Layouts   Delete   Configure
▼   LC CONTROL ▼

Milestone Status & Exceptions Criteria
Click on the '+' or '-' to expand or collapse a criteria group
☐ Include Shipment Milestones
☐ Search by Status/Milestone Progress
Select purchase orders where milestone status is
All
On Order
In Production
At Origin
In Transit
In Customs

And Milestone   LC Confirmed/Swift Uploaded ▼
And Milestone Progress   Not Occurred ▼

Criámos uma nova *Saved View*, com critérios semelhantes aos apresentados anteriormente, mas alterando o critério de milestone para o apresentado abaixo.

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1. Preparação do processo de importação

2. Colocação do booking e preparação da mercadoria

3. Embarque da mercadoria

4. Chegada e entrega da mercadoria no entreposto

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2. Colocação do booking e preparação da mercadoria

Após a colocação da milestone *LC Confirmed / Swift Uploaded,* o processo passa por uma série de eventos cujas ações em sistema são realizadas por outras entidades mas que deverão ser controladas e poderão exigir alguma ação por parte da equipa de GF. O processo deverá ser monitorizado da seguinte forma:

1. **Verificar se o booking já foi criado pelo fornecedor e aprovado pelo operador logístico*;**
2. **Verificar previsões de saída e chegada de carga;**

*No caso da GF-MC e Worten, é necessário fazer a aprovação ao booking do fornecedor para permitir que o mesmo flua para o operador logístico.
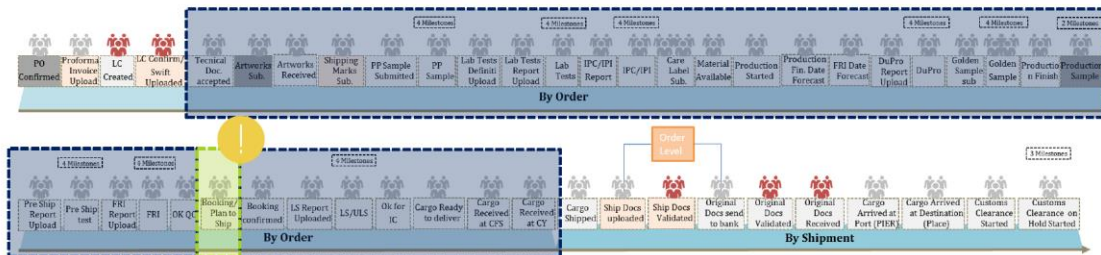
2. Colocação do booking e preparação da mercadoria
2.1. Criação e aprovação do Booking

Choose Area: Orders | Narrow By: Purchase Order | Enter Value: SON35548323 | Days: 30 | Search | Advanced Search

Add another filter (3 maximum)

View Orders

Displaying rows 1 - 9 of 9 | Export View

Saved Views: Save Edit | Show Criteria | Layouts | Delete Configure

Milestones

A milestone *Booking Confirmed* corresponde à aprovação do booking pelo 3PL.

	Purchase Order	Product Code	Division	Final Destination (Order)	Ship Window End	PO ETA	Order Qty	Supplier	Status	PO Confirmed	Proforma Invoice	LC Created	LC Confirmed/Swift Uploaded	Production Started	PP Sample approved	Golden sample approved	Booking/Plan to Ship	Cargo Ready Date	Booking Confirmed
☐	SON35548323	6016297	SR Fashion Zippy	703	20/01/2017	07/03/2017	18 ea	RAKHEJA ENTERPRISES	In Production	21/11/2016							05/02/2017	04/02/2017	08/02/2017
☐		6016296	SR Fashion Zippy	703	20/01/2017	07/03/2017	26 ea	RAKHEJA ENTERPRISES	In Production	21/11/2016							05/02/2017	04/02/2017	08/02/2017
☐		6016433	SR Fashion Zippy	703	20/01/2017	07/03/2017	128 ea	RAKHEJA ENTERPRISES	In Production	21/11/2016							05/02/2017	04/02/2017	08/02/2017
☐		6016291	SR Fashion Zippy	703	20/01/2017	07/03/2017	28 ea	RAKHEJA ENTERPRISES	In Production	21/11/2016							05/02/2017	04/02/2017	08/02/2017
☐		6016289	SR Fashion Zippy	703	20/01/2017	07/03/2017	28 ea	RAKHEJA ENTERPRISES	In Production	21/11/2016		24/11/2016	24/11/2016				05/02/2017	04/02/2017	08/02/2017
☐		6016295	SR Fashion Zippy	703	20/01/2017	07/03/2017	23 ea	RAKHEJA ENTERPRISES	In Production	21/11/2016		24/11/2016	24/11/2016		image003		05/02/2017	04/02/2017	08/02/2017

A milestone *Booking/Plan-To-Ship* corresponde à criação do booking pelo fornecedor na plataforma.
Esta milestone apenas será gerada quando o booking é submetido para o 3PL, i.e., com estado *Active.*

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2. Colocação do booking e preparação da mercadoria
2.2. PTS Approval (Só aplicável para a equipa GF-MC e GF-SR : Worten)
2.2.1. PTS Approval - Como pesquisar (1/2)

SONAE | 🏠 | ☰ | **APPLICATIONS** | **TOOLS** | **ANALYTICS** | **CREATE**

Home

Trade Home | Transportation Home

BOOKING & TENDERING	FULFILLMENT	VISIBILITY
BL Instructions	Plan to Ship ①	Container Tracking
BL Reports	Shipping Orders	Event Management
Bills of Lading (BL)		Inventory Pipeline
Booking	SHIPMENT PLANNING	Shipment Tracking
Booking Reports	Load Plans	Shipments
Sailing Schedules	SOURCING	Tracking Alerts

Choose Area: Orders | Narrow By: Purchase Order | Enter... son*

Add another filter (3 maxim...

Plan to Ship ▾

*Required

Request Ref Numb... ▾	Plan to Ship ID ▾	Po Number(s) = on... ▾	Status = ▾
596260239		SON33533048	Buyer Review Pending ▾
596109493	+	SON33549455 +	
Mode ▾	Buyer ▾	Seller ▾	Manufacture ▾
Consolidator ▾	Final Destination ▾	Create Date in last x... ▾ *	

Number of Rows: 25 ▾ | **Search** ②

Request Ref Number	Plan to Ship ID	Po Number(s)	Status	Mode	Issue Date	Buyer	Seller	Manufacture	Consolidator	Final Destination
596260239	596260239	SON33533048	Buyer Review Pending	Ocean	2017-05-30	Modelo Continente Hipermercados, SA	KOOLLOOK INTERNATIONAL LTD.	KOOLLOOK INTERNATIONAL LTD.	KN	ENT. ALV FARMACIA
596109493	596109493	SON33549455	Buyer Review Pending	Ocean	2017-05-30	MC INTERNATIONAL TRADE, SA	SREE ANGALAMMAN EXPORTS	SREE ANGALAMMAN EXPORTS	Damco	ENT. VNR BLIGEIRO

Viewing 1 - 2

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2. Colocação do booking e preparação da mercadoria

2.2. PTS Approval (Só aplicável para a equipa GF-MC e GF-SR : Worten)

2.2.1. PTS Approval - Como pesquisar (1/2)

Plan to Ship ▾

*Required

Request Ref Number ▾ [1]	Plan to Ship ID ▾ [2]	Po Number(s) cont... ▾ [3]	Status = ▾ [4] Buyer Review Pending ▾
Mode ▾ [5]	Buyer = ▾ [6]	Seller ▾ [7]	Manufacture ▾ [8]
Consolidator ▾ [9]	Final Destination = ▾ ENT. ALV FARMACIA [10]	Create Date in last x... ▾ * [11]	Number of Rows: 25 ▾ **Search**

1. **Request Ref Number** – Permite pesquisar pelo número do booking (= Plan-To-Ship ID)
2. **Plan To Ship ID** - Permite pesquisar pelo número do booking (= Request Ref Number)
3. **PO Number(s)** – este campo permite pesquisar um booking pelo número de uma PO específica
4. **Status** – permite selecionar da dropdown list o estado *Buyer Review Pending*
5. **Mode** – permite filtrar pelo modo de transporte
6. **Buyer** – permite especificar qual a entidade importadora
7. **Seller** – permite especificar qual o fornecedor
8. **Manufacturer** – permite especificar qual o fornecedor/fábrica/shipper
9. **Consolidator** – permite especificar qual o operador logístico
10. **Final Destination** – permite especificar qual o entreposto
11. **Create Date** – permite definir um horizonte temporal na pesquisa, e.g.: bookings criados nos últimos 30 dias.

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2. Colocação do booking e preparação da mercadoria

2.2. PTS Approval (Só aplicável para a equipa GF-MC e GF-SR : Worten)

2.2.1. PTS Approval - Como pesquisar (2/2)

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2. Colocação do booking e preparação da mercadoria

2.2. PTS Approval (Só aplicável para a equipa GF-MC e GF-SR : Worten)

2.2.3. Como criar um report que nos devolva os bookings pendentes

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2. Colocação do booking e preparação da mercadoria

2.2. PTS Approval (Só aplicável para a equipa GF-MC e GF-SR : Worten)

2.2.3. Como criar um report que nos devolva os bookings pendentes

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2. Colocação do booking e preparação da mercadoria
2.2. PTS Approval (Só aplicável para a equipa GF-MC e GF-SR : Worten)
2.2.3. Como criar um report que nos devolva os bookings pendentes

2. Colocação do booking e preparação da mercadoria
2.2. PTS Approval (Só aplicável para a equipa GF-MC e GF-SR : Worten)
2.2.3. Como criar um report que nos devolva os bookings pendentes

2. Colocação do booking e preparação da mercadoria

2.2. PTS Approval (Só aplicável para a equipa GF-MC e GF-SR : Worten)

2.2.3. Como criar um report que nos devolva os bookings pendentes

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2. Colocação do booking e preparação da mercadoria

2.2. PTS Approval (Só aplicável para a equipa GF-MC e GF-SR : Worten)

2.2.3. Como criar um report que nos devolva os bookings pendentes

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2. Colocação do booking e preparação da mercadoria
2.3. Previsões de saída e chegada da mercadoria

Quando o operador logístico aprova o booking do fornecedor, o mesmo envia duas milestones com datas estimadas de saída do porto de embarque e de chegada ao porto final. As milestone são, respetivamente, **ETS From Booking** e **ETA From Booking**.

Quando a mercadoria embarca, o operador logístico envia um ASN onde inclui novamente uma data para a ETA que vai sendo atualizada sempre que necessário, até à mercadoria chegar ao POD. Portanto, o campo ETA From Booking, após embarque deverá ser complementado pelo campo **ETA Port of Discharge**, que devolve uma data mais precisa em relação à chegada da mercadoria.

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1. Preparação do processo de importação
2. Colocação do booking e preparação da mercadoria
3. Embarque da mercadoria
4. Chegada e entrega da mercadoria no entreposto

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3. Embarque da mercadoria
3.1. Como verificar se uma OC já embarcou

Quando a mercadoria embarca, o operador logístico envia a milestone *Cargo Shipped* para sinalizar o embarque. Para vermos os detalhes do embarque, a pesquisa terá que ser feita tendo em conta o objeto *Shipment*.

3. Embarque da mercadoria
3.1. Como verificar se uma OC já embarcou

Esta OC foi desdobrada em 2 embarques.

3. Embarque da mercadoria
3.2. Como verificar quais os SKUs embarcados

3. Embarque da mercadoria
3.3. Como fazer a assignação manual do despachante a um embarque

3. Embarque da mercadoria
3.3. Como fazer a assignação manual do despachante a um embarque

3. Embarque da mercadoria
3.4. Prioridades: Sea Road e Agendamento – Saved View
3.4.1. Saved View – *Priority_Shipments*

As direções comerciais poderão sinalizar um embarque como prioritário a nível de transporte – Sea Road –, a nível de receção no entreposto - Warehouse Priority. Esta verificação poderá ser feita configurando uma saved view.

Foi definido junto das equipas de Gestão de Fluxos uma saved view de forma a uniformizar o envio de informação sobre cargas prioritárias para os operadores logísticos. A saved view foi definida com o nome de Priority Shipments, encontra-se ao nível do objeto Order e poderá ser partilhada com qualquer user.

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3. Embarque da mercadoria
3.4. Prioridades: Sea Road e Agendamento – Saved View
3.4.2. Como criar uma saved view que nos devolva os embarques prioritários

View Shipments

⊟ Displaying rows 1 - 13 of 13

Saved Views: Save Edit ⑤ ⊕ ▾   Show Criteria   Layouts   Delete
Prioridade

		Shipment Details	BL/AWB/PRO	Container	Shipment ID	Final Destination (Shipment)	Status	Last Milestone	Last Milestone Date
▤	☐ View	176-38004621	Unspecified	176-38004621	778	Delivered	Cargo Scheduled	13/04/2017
▤	☐ View	DMCQJHT0405675	FSCU9879841	JHT0247855	740	Delivered	ETA From Booking	30/04/2017
▤	☐ View	DMCQJHT0405675	GLDU5195457	JHT0247854	740	Delivered	ETA From Booking	30/04/20

⊟ Geography
◉ Origin   ○ Origin Group

Origin   Country   Selected Locations
Select One ▾ →

City
←

◉ BL/AWB Dest.   ○ BL/AWB Dest. Group

BL/AWB Dest.   Country   Selected Locations
Select One ▾ →

City
←

Selecionar as origens. !

Port Of Load   Country
--Select One-- ▾   Display Port

Available Ports of Load   Selected Ports of Load
No Available Ports of Load   All
→
←

Port Of Discharge   Country

⑦

Date Criteria
Select the Rolling Window, or specify a Date Range for your search

Select Reference Date
Shipped (ASN) ▾

⑥

◉ Rolling Window   Last/Next ▾   90 ▾   Days

○ Date Range   From   To

Submit

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3. Embarque da mercadoria
3.4. Prioridades: Sea Road e Agendamento – Saved View
3.4.2. Como criar uma saved view que nos devolva os embarques prioritários

View Shipments

⊟ Displaying rows 1 - 13 of 13   Export View

Saved Views: Save Edit ⊕ ▾   Show Criteria   Layouts   Delete   Configure
Prioridade

		Shipment Details	BL/AWB/PRO	Container	Shipment ID	Final Destination (Shipment)	Status	Last Miles...
▤	☐ View	176-38004621	Unspecified	176-38004621	778	Delivered	Cargo Sched...
▤	☐ View	DMCQJHT0405675	FSCU9879841	JHT0247855	740	Delivered	ETA F... Booki...
▤	☐ View	DMCQJHT0405675	GLDU5195457	JHT0247854	740	Delivered	ETA F... Booki...

⊟ Update Reason Codes

Arrival (Shipment)
All
External events on arrival
Lack of forwarder invoice

Contract Changes (Shipment)
All
Change of incoterm
Change of Mode of Transpor

Customs Clearance (Shipment)
All
OnHold_Physical_CargoMov
OnHold_Physical_NoCargoM
OnHold_Document_Inspecti
On hold
External_Events

Customs Clearance Place (Shipment)
All
Sines
Bobadela

Deliver (Shipment)
All
Lack of space at warehouse
External events on delivery

Documentation (Ship...
All
Docs not correct
Delay sending originals bank
Invoice/Pack. list incorrect
Lack of feeder

⑨

Priority (Shipment)
All
Sea road
Warehouse Priority

Neste grupo de Reason Codes, podemos selecionar ambos os tipos de prioridade (All) ou só um tipo.

⊟ Organization

⑧

Division
MaxMat
MC Bazar
MC Bazarao
MC Casa
MC Food
MC Fresh Food

Selecionar as BU (unidades de negócio) !

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3. Embarque da mercadoria
3.5. Quais são as milestones da Gestão de Fluxos?
3.5.1. *Shipment Docs Validated*

	Shipment Details	Container	Shipment ID	Final Destination (Shipment)	BL/AWB/PRO	Purchase Order	# of Packages	Total Weight	Total Volume	Cargo Shipped	Shipment Docs Uploaded	Shipment Docs Validated
☐	View	MSCU1265865	JHT0248960	778	DMCQJHT0407166	SON36522180	9	123	0,464	09/04/2017	24/04/2017	

Após o embarque, o fornecedor faz o upload dos documentos de embarque na plataforma.

o A GF, através da milestone *Shipment Docs Uploaded*, consegue verificar que o fornecedor já colocou os documentos na plataforma e que poderá proceder, assim, à verificação dos documentos.

o Os documentos são todos organizados num só ficheiro e é feito o upload dos mesmos ao nível do Shipment, com uma nomenclatura específica - Container#_Fornecedor_User_BL#.

Nota: Sempre que, no mesmo contentor, existam diferentes BLs relativos ao mesmo fornecedor, é acrescentado ao nome do ficheiro, o respetivo número do BL (ex: "MEDU8624520-RAKHEJA-SCC-DMCQJHT0398963");

o Ao nível do Shipment, também é feito o upload da fatura de frete pela GF - desta forma, o despachante tem acesso aos documentos de embarque e à fatura de frete e o fornecedor não tem acesso à fatura de frete, conforme desejado.

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3. Embarque da mercadoria
3.5. Quais são as milestones da Gestão de Fluxos?
3.5.1. *Shipment Docs Validated*

A tipologia de documento a escolher deverá ser sempre *Validated Shipment Docs* de forma a que esta ação popule automaticamente a milestone *Shipment Docs Validated*, não havendo assim necessidade de um input manual da mesma.

3. Embarque da mercadoria
3.5. Quais são as milestones da Gestão de Fluxos?
3.5.2. *Original Docs Validated*

A milestone *Original Docs Validated* tem como objetivo dar visibilidade da aceitação das divergência.

3. Embarque da mercadoria
3.5. Quais são as milestones da Gestão de Fluxos?
3.5.3. *Original Docs Received*

A milestone *Original Docs Received* tem como objetivo dar visibilidade da receção física dos documentos originais pela Sonae.

3. Embarque da mercadoria

3.6. Como indicar o owner do processo da equipa de Gestão de Fluxos

É necessário indicar na plataforma quem é o owner do processo na equipa de Gestão Fluxos para contacto sempre que necessário. Ex.: Despachante. Esta indicação é dada através do reason code *Flow Management Ownership*. O timing de colocação deverá ser após a ocorrência da milestone *Original Docs Validated*.

3. Embarque da mercadoria

3.6. Como indicar o owner do processo da equipa de Gestão de Fluxos

3. Embarque da mercadoria
3.7. Como indicar o local de despacho da mercadoria

É necessário colocar na plataforma a informação sobre qual será o local de despacho nos casos de exceção, e.g. Sines-Bobadela de forma a que o despachante tome conhecimento do mesmo.

3. Embarque da mercadoria
3.7. Como indicar o local de despacho da mercadoria

Em termos de reporting, a informação aparece desta forma.

4. Chegada e entrega da mercadoria no entreposto

4.1. Quais são as milestones da Gestão de Fluxos?

4.1.1. *Cargo Availability*

A milestone Cargo Availability sinaliza a disponibilidade da carga para o agendamento. Para a colocar esta milestone, existem 3 condições que devem estar garantidas:

1. **Documentação original foi recebida pela equipa GF** – Sinalizado pela milestone *Original Docs Received*;
2. **Carga encontra-se no porto** – Sinalizada pelo 3PL com a milestone *Cargo Arrived At Pier* ou, nos casos em que há deslocação para porto seco, *Cargo Arrived At Place*;
3. **Processo de despacho finalizado** – Sinalizado pelos despachantes com a milestone *Customs Clearance Completed*;

No caso de uma **OC de receção**, esta deve ser mencionada no campo de comentários desta milestone, da seguinte forma: OC Original: SON#, OC Receção: SON#.

4. Chegada e entrega da mercadoria no entreposto
4.1. Quais são as milestones da Gestão de Fluxos?
4.1.2. *Cargo Scheduled*

É a última milestone a ser colocada pela GF. Esta milestone tem como objetivo agendar a entrega da carga no entreposto. É a única milestone da responsabilidade da GF que deverá ser **colocada com uma data futura.**

4. Chegada e entrega da mercadoria no entreposto
4.2. Agendamento : Reports
4.2.1. Carga Disponível para Agendamento

Foram criados dois reports de controlo para os agendamentos.
1) Para verificarem qual a carga que se encontra disponível para agendamento, foi criado o layout Agendamento GF, ao qual foram associadas duas saved views - **Carga Disponível AM/PM.**

4. Chegada e entrega da mercadoria no entreposto

4.2. Agendamento : Reports

4.2.2. Mapa Agendamento GT Nexus

Foram criados dois reports de controlo para os agendamentos.

2) Para comunicarem aos entrepostos e operadores logísticos o agendamento, foi criado o layout Agendamento Entreposto GF. Para facilitar a comunicação aos 3PL foram associadas saved views - **Agendamento Damco, Agendamento KN** e **Agendamento Agility.**

O layout pode ser utilizado para comunicação a outras partes que não estejam configuráveis nas saved views.

View Shipments

As saved views já se encontram criadas e disponíveis em sistema. Para ter visibilidade das mesmas, deverá ser pedido aos pivots das equipas que façam a partilha da saved view.

⊟ Displaying rows 1 - 3 of 3   Export View

Saved Views: Set Default   Edit   Delete   Share   Schedule   Show Criteria   Layouts   Delete   Configure

Agendamento Damco ▼   Agendamento Entreposto GF ▼

▣	Shipment Details	Container	Container Type	Service Type	BL/AWB/PRO	Shipment ID	Purchase Order	Final Destination (Shipment)	Mode	Cargo Scheduled	Cargo Scheduled Comments	Priority	Priority Comment	# of Packages	Total Volume	Total Weight	Carrier	View Docs
▣ ☐	View	TCKU1737694	20' Standard Dry	CFS (CY) - Container Yard	DMCQJHT0408402	JHT0249610	SON35925284, SON36048344, SON35652378	703	Ocean	29/05/2017				211	10,899	1 586	Damco	Docs
▣ ☐	View	TCKU1737694	20' Standard Dry	CFS (CY) - Container Yard	DMCQJHT0408405	JHT0249612	SON36037756	778	Ocean	29/05/2017				67	3,518	392.55	Damco	Docs
▣ ☐	View	TCKU1737694	20' Standard Dry	CFS (CY) - Container Yard	DMCQJHT0408507	JHT0249610	SON35925284, SON36048344, SON35652378	703	Ocean	29/05/2017				43	3,206	532,6	Damco	Docs

Este report devolverá todos os shipments que já têm atribuída uma data de entrega no entreposto, i.e., shipments com a milestone *Cargo Scheduled* postada, num intervalo temporal já definido mas que poderá ser ajustado pelos utilizadores.

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5. Informação Adicional

5.1. Como criar um envio CPT, CIF, CIP, CFR, DAT e DAP em GT Nexus

SONAE   🏠   🗐   **APPLICATIONS**   **TOOLS**   **ANALYTICS**   📄 **CREATE**

View Orders

⊟ Choose Area   Narrow By   Enter Value   Days

Orders ▼   Purchase Order ▼   SON35819071   30 ▼   Search   Advanced Search

Add another filter   (3 maximum)

View Orders

⊟ Displaying rows 1 - 33 of 33   ①   Export View

Saved Views: Save   Edit   Show Criteria   Layouts   Configure

▼   Order Line ▼

O layout selecionado deverá ser sempre o *Order Line* ou outro layout que tenha sido criado com base neste.

☑	6021987	778		07/05/2017	04/06/2017	160 ea	0 RAKHEJA ENTERPRISES	In Transit	0 Purchase Order	View
☑	6021988	778		07/05/2017	04/06/2017	120 ea	0 RAKHEJA ENTERPRISES	In Transit	0 Purchase Order	View
☑	6021784	778		07/05/2017	04/06/2017	200 ea	0 RAKHEJA ENTERPRISES	In Transit	0 Purchase Order	View
☑	6021776	778		07/05/2017	04/06/2017	150 ea	0 RAKHEJA ENTERPRISES	In Transit	0 Purchase Order	View
☑	6021775	778		07/05/2017	04/06/2017	100 ea	0 RAKHEJA ENTERPRISES	In Transit	0 Purchase Order	View

☑ Select All ②

Enter Milestone | Attach Document

Search | Update Product Priority | Add Comments | Create Manifest   ③   Clicar na opção *Create Manifest.*

View Map | Add Line Comments

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5. Informação Adicional
5.1. Como criar um envio CPT, CIF, CIP, CFR, DAT e DAP em GT Nexus

Manifest Information
Required fields are marked with an asterisk (*)

Manifest Type	Cross-Border
Shipment ID *	
Manifest Name *	
In Transit Mode	Air
Equipment Type	Unspecified
Manifest Date *	02/05/2017

Select Unit of Measures

Volume UOM	CBMS	Weight UOM	kg	Quantity UOM	ea

Enter Party Information

Consignee
Notify

Add other parties

Enter Party Information

Consignee	Sonae
Notify	None
Party Type	Broker
Available Parties	SONFJPC - Fernando Jose Pin

Add other parties

4 — Assignar o despachante.

Preencher os campos com a informação necessária.

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5. Informação Adicional
5.1. Como criar um envio CPT, CIF, CIP, CFR, DAT e DAP em GT Nexus

Enter Line Item Information

Allocate additional PO line items by clicking on the 'Add Existing PO Line Items' link below.
Click on the 'Add New Shipment Line Items' link and specify the number of lines. You can use this option only if item PO's are not available in the system.
Select and edit line items by clicking on 'Edit' button below.
* This column displays open quantities based on first leg shipments. Negative quantities indicate over-shipped cargo. Please edit the line items to update the quantities, if needed.

Add Existing PO Line Items OR Add New Shipment Line Items 1

	Load Seq	Purchase Order	Ship Window End	Product Code	Product Desc.	
✓		SON35925277	05/05/2017	5941254	CAMISA	
✓		SON35925277	05/05/2017	5941247	CAMISA	
✓		SON35925277	05/05/2017	5941246	CAMISA	
✓		SON35925277	05/05/2017	5941245	CAMISA	
✓	5	Total				

Edit | Enter AWB Information | Unallocate Remove

BL/AWB Information - Google Chrome

Seguro | https://network.gtnexus.com/orders/editbl.jsp

BL/AWB Information

Required fields are marked with an asterisk (*)

BL/AWB #		Service Type	-- Select One --
Pro #			
Master BL			
BL/AWB Ref #		BL/AWB Ref 2	
BL/AWB Ref 3		Booking #	
Contract #		Origin Charges	USD - $ - dollar (Un
City of Origin	Select Country		
	Validate		
BL/AWB Dest	Select Country	ETA BL/AWB Dest	dd/mm/yyyy GMT
	Validate		
BL/AWB Date 1	dd/mm/yyyy GMT	BL/AWB Date 2	dd/mm/yyyy GMT
BL/AWB Date 3	dd/mm/yyyy GMT		

Save 6

Preencher com informação do BL/AWB.

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Figure 62 – End-User Training-Manual - Flow Management Team

# APPENDIX VI – GT NEXUS GLOSSARY

*Figure 63 - Portuguese Version of GT Nexus Glossary – Index*

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*Figure 66 - Portuguese Version of GT Nexus Glossary – 3rd Page*

*Figure 67 - Portuguese Version of GT Nexus Glossary – 4th Page*

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# APPENDIX VII – CUSTOMS BROKERS END-USER TRAINING-MANUAL

Figure 77 - Customs Brokers End-User Training-Manual

APPENDIX VIII – ONE-TIME VENDOR END-USER TRAINING-MANUAL

# Creation and implementation of collaborative business processes & solutions for international logistics, in a retail company

Figure 78 – One-Time Vendor End-User Training-Manual