1. Introduction to CASE-ARIA s.r.l.

CASE-ARIA s.r.l. is a renowned company in the food industry, specializing in the production and distribution of artisanal cheeses, with a well-established presence both nationally and across Europe. Its corporate philosophy is based on quality, authenticity of products, and customer focus. Every wheel of cheese produced by CASE-ARIA s.r.l. is the result of a craft tradition handed down through generations, combined with innovative production methods that meet the highest quality standards.

The logistics department plays a crucial role within the organization, as it manages all flows of materials and products, ensuring that the cheeses produced arrive promptly and intact in the hands of customers, whether distributors or end consumers. The logistics department does not just move products—coordination and management are the key words that describe its mission: managing inventory, planning shipments, supervising transport, and maintaining perfect organization of the warehouses are all vital activities for the smooth functioning of the entire company.

The logistics of CASE-ARIA s.r.l. is indeed considered the beating heart of the organization, as it is capable of synchronizing every aspect of business operations. From production to distribution, every phase of the production and commercial cycle is supported by an impeccable logistics network, which ensures that every product reaches the right place at the right time, while always maintaining its quality. Every phase of the logistics process is designed with the aim of optimizing costs, reducing delivery times, and, above all, ensuring maximum customer satisfaction.

CASE-ARIA s.r.l.'s ability to operate smoothly and efficiently in logistics management is one of the keys to its success. Thanks to a highly qualified team, the use of advanced technologies, and a forward-looking vision, the company is able to tackle the daily challenges of the food sector, where speed and accuracy of deliveries are of vital importance.

2. Structure of the Logistics Department

The logistics department of CASE-ARIA s.r.l. is both a strategic and operational structure, designed to ensure an efficient and continuous flow of goods, from receipt of materials to final delivery to the customer. Its internal organization reflects the importance placed on precision, speed, and reliability of operations. Every professional figure within it has clearly defined, yet interconnected tasks, with the shared goal of delivering a high-level logistics service.

Logistics Manager
At the top of the department is the Logistics Manager, a key figure responsible for overseeing the entire operational area. They manage the department's human and material resources, optimize logistics processes, and coordinate with other company departments such as production, sales, and administration. They must ensure that all logistics activities are carried out on time, within budget, and according to quality standards. They also actively analyze performance and propose continuous improvement initiatives.

Planner
The Planner is responsible for daily and weekly operational planning. This includes scheduling incoming and outgoing orders, managing shipment priorities, and organizing warehouse space and resources optimally. They work closely with the Logistics Manager and warehouse staff to ensure seamless operations. The Planner also communicates with suppliers and external transporters to maintain a balance between demand and operational capacity.

Warehouse Operators
Warehouse operators are the operational core of the department. They are responsible for receiving incoming goods, performing quantity and quality checks on products, orderly and safe storage in the warehouse, and picking for order preparation. They follow standardized procedures to ensure traceability and product integrity while maintaining a clean and organized work environment. Their work is supported by Warehouse Management Systems (WMS), allowing real-time monitoring of inventory and internal movements.

Drivers
Drivers handle the final phase of the logistics process: delivery of products to customers. Operating with company or personal vehicles, they ensure punctuality and care in the distribution of goods. They must follow assigned routes, comply with road safety and freight transport regulations, and maintain good customer relationships during delivery, directly representing the company. They are required to promptly report any issues encountered during transport or delivery.

Logistics Data Analyst (Support)
Lastly, the Logistics Data Analyst is a strategic support role, specializing in data analysis related to logistics. They collect information on delivery times, transport costs, warehouse inventory, supplier performance, and other key performance indicators (KPIs). Their work provides the Logistics Manager and Planner with the tools to make informed decisions. These analyses help identify inefficiencies, anticipate

problems, and develop data-driven solutions, contributing to the department's continuous improvement.

3. How to Structure Logistics Reports from Datasets

Analyzing logistics data is crucial for controlling and continuously improving the company's operational activities. Datasets, such as those found in files like logistica_export_casearia.csv, are rich sources of information that, when well-processed and interpreted, can offer valuable insights into service performance and the overall efficiency of the logistics chain.

Received Datasets
Files periodically shared by the management system or monitoring software contain key columns: shipping date, order ID, customer, delivery location, quantity and type of products, shipment status, as well as estimated and actual times. These elements, individually or combined, form the basis for calculating performance indicators and identifying potential issues.

Purpose of the Reports
The main goal of logistics reports is to provide an objective and updated snapshot of the department's performance. Specifically, they should help monitor:

- Timeliness and efficiency of deliveries;
- Productivity and organization of the warehouses;
- Perceived quality of customer service;
- Logistics cost trends, understood as resources used versus results achieved.

A well-structured report thus becomes a strategic tool, useful for both the Logistics Manager and upper management to make data-driven, measurable decisions.

Structure of a Typical Report
Every report should follow a clear and consistent structure, with the following key elements:

- **Title**: Should be specific and easy to understand. Examples: "Shipping Performance April 2025" or "Returns and Delays Analysis Q1 2025".
- **Executive Summary**: A brief 3–5 line introduction highlighting key KPIs of the period under review, offering quick insight for readers who won't delve into full detail.

- **Data Analysis**: The core of the document, clearly presenting the analyzed data. Common indicators include:
    - Average delivery time vs. company or industry targets;
    - Percentage of on-time deliveries;
    - Error or return rate vs. total shipments;
    - Shipped volume by geographical area, useful for identifying critical or high-performing zones.
- **Charts and Tables**: Visuals greatly aid understanding and improve usability. Recommended formats include:
    - Bar charts for comparing on-time vs. delayed deliveries;
    - Heat maps for recurring geographical issues;
    - Summary tables for neatly organized key metrics.
- **Conclusions and Recommendations**: The closing section should interpret the data, identifying problems, potential causes, and suggested corrective actions. It may also include improvement opportunities for specific processes or suggestions for investment in resources and technology.

Useful Tools
Reports can be created with tools of varying complexity, depending on company resources. Excel or Google Sheets are versatile and accessible options, supporting pivot tables, filters, and dynamic charts. For more advanced needs, platforms like Power BI or Tableau offer interactive visualizations and automatic data updates from external sources.

Practical Example
Starting from a CSV file with shipping data, a first concrete step might be calculating the percentage of delayed shipments using the formula:
(delayed shipments / total shipments) × 100

4. Best Practices in Logistics

In modern logistics, adopting sound operational practices is no longer optional—it's essential. For a company like CASE-ARIA s.r.l., which focuses on efficiency, reliability, and customer satisfaction, adhering to a set of shared best practices makes the

difference between a reactive department and a truly proactive one. These practices not only reduce errors and optimize resources but also help build a more sustainable and resilient logistics system.

Data Accuracy
Everything begins with data. Every operational or strategic decision stems from information recorded in IT systems. Therefore, it's essential that every dataset, transport document, label, or warehouse note be updated, complete, and correct. Data errors can lead to incorrect shipments, unbalanced inventory, or misleading reports. It is good practice to implement periodic data quality checks and train staff on the importance of accurate recordkeeping.

Proactive Monitoring
Efficient logistics doesn’t just respond to problems—it anticipates them. This means adopting a proactive approach to monitoring both external and internal conditions. For instance, adverse weather forecasts or news of traffic congestion should be integrated into delivery planning, just as supplier delays must be identified early. Using automatic alerts, real-time dashboards, and predictive analytics allows action before issues become emergencies.

Process Standardization
Every logistics operation should follow a clear, repeatable procedure. Standardization is the foundation for quality and safety: it allows every operator, regardless of experience, to know exactly what to do at every stage. Operational checklists are helpful for activities like goods receipt, storage, order preparation, and vehicle loading/unloading. Adopting such procedures reduces variability and enables better control of the operational flow.

Continuous Communication
Logistics is not an isolated department but a crossroads between customers, suppliers, warehouses, production, and transport. In this light, continuous and timely communication is vital. Any delays, errors, or changes must be communicated in real time to all stakeholders. This applies to customers, who appreciate transparency, as well as internal colleagues, who need to adjust their activities. Digital notification tools such as automatic emails or company apps can greatly support this.

Optimized Inventory Management
One of the most delicate challenges in logistics is finding the right balance between product availability and warehouse costs. It’s vital to avoid both stock-outs (which risk customer satisfaction) and overstock (which ties up capital and space). Adopting dynamic reorder models, analyzing historical consumption, and integrating ERP

systems with sales and production platforms enables smoother and more rational stock management.

Sustainability
Finally, a principle that cuts across all modern logistics activities is sustainability, in both environmental and economic terms. CASE-ARIA s.r.l. promotes optimized delivery routes to reduce both fuel consumption and overall environmental impact. Using recyclable packaging, digitizing transport documents, and minimizing unnecessary movements also contribute to greener logistics. Every logistics decision should consider not only efficiency but also environmental responsibility.

5. Problem Solving in Logistics

Logistics is a dynamic and complex field where operational challenges can arise daily. In this context, it's essential to adopt a structured and methodical approach to address and solve problems. Problem solving in logistics isn't just about responding to immediate issues, but also about continuously improving business operations. One method proven to be highly effective for tackling logistics challenges systematically is the PDCA (Plan-Do-Check-Act) cycle—a continuous improvement methodology that helps solve problems and prevent recurrence.

Recommended Method: PDCA (Plan-Do-Check-Act)

- **Plan**: The first step is fully understanding the problem. For example, if shipment delays occur, begin by analyzing available data—delivery times, routes, resources used—and consider external factors like traffic or weather. Then, plan an intervention strategy.
- **Do**: Once the plan is defined, implement a pilot solution. For instance, if inefficient route planning is suspected, test a new routing system using more advanced software or adjust departure times to optimize travel. The solution should be piloted on a small scale first.
- **Check**: After implementing the solution, measure its effectiveness. For example, compare delivery times before and after the new routing system. If delays are reduced by the targeted 15%, the solution has worked. This step assesses the impact.
- **Act**: If results are satisfactory, standardize and implement the new practice company-wide. If not, repeat the process, reanalyze the problem, and adjust the solution until the optimal result is achieved.

Useful Problem-Solving Techniques

Besides PDCA, several techniques can help analyze and resolve logistics problems effectively, including:

- **5 Whys**: This technique relies on repeatedly asking "Why?"—usually five times—to get to the root cause of a problem. For example: "Why are deliveries delayed?" → "Because of poor planning," → "Why is the planning poor?" and so on, until identifying the root issue.
- **Ishikawa Diagram (Fishbone)**: A visual tool to explore all possible causes of a problem. It resembles a fish skeleton and helps map out contributing factors like people, processes, technologies, and materials. Especially helpful for complex, multifactor problems.
- **Logistics SWOT Analysis**: This method examines the Strengths, Weaknesses, Opportunities, and Threats of the logistics department. It helps identify what the company does well (e.g., organized warehousing), where it can improve (e.g., poor tracking), and what external opportunities or risks exist.