



**Transport and Logistics Operational Manager**

# **Training mobility modules**



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**Links between activities, skills units and mobility training units**

<b>ACTIVITIES</b>	<b>SKILLS UNITS</b>	<b>MOBILITY TRAINING UNIT</b>
<b>Activity 1: Implementation of freight transport operations</b>	<b>Unit 1: To implement freight transport operations</b>	<b>Module 1: Evaluation of the feasibility of transport operations and selection of sub-contractors</b>
		<b>Module 2: Organisation and running of transport operations</b>
		<b>Module 3: Monitoring of transport operations and improvement of the performance of transport</b>
<b>Activity 2: Organisation and management of warehouse activities associated with transport</b>	<b>Unit 2: To organise and to manage warehouse activities associated with transport</b>	<b>Module 4: Designing warehouse solutions and improvement of the performance of warehousing services</b>
		<b>Module 5: Coordination of warehouse operations</b>
<b>Activity 3: Asset management associated with transport</b>	<b>Unit 3: To manage assets and technology taking into account environmental, social and economic challenges</b>	<b>Not relevant for mobility</b>
<b>Activity 4: Management of the service relationship</b>	<b>Unit 4: To manage the service relationship</b>	<b>Not relevant for mobility</b>
<b>Activity 5: Team management</b>	<b>Unit 5: To manage a team</b>	<b>Not relevant for mobility</b>

## Module N° 1: Evaluation of the feasibility of transport operations and selection of sub-contractors

### Link with the skills repertory

Unit 1: To implement freight transport operations

### Professional situation(s)

Starting with a client request, the Transport and Logistics Operational Manager is responsible for the feasibility assessment of the transport operation. Therefore, he/she makes sure to be in possession of all the information and human resources necessary.

He/she shall also consider the possibility of subcontracting part or all of the transport mission. If he/she decides to subcontract, he/she is responsible for identifying and selecting a suitable subcontractor.

### Module Objectives

Skills	Detailed skills	Associated knowledge
<b>U1S1 – To EVALUATE THE FEASIBILITY OF TRANSPORT OPERATIONS</b>	<b>U1S1.1</b> – To qualify the enquiry for transport	<b>U1K1</b> – Transport demand <b>U1K2</b> – Supply chain management <b>U1K3</b> – Transport means and modes including multimodal options <b>U1K5</b> – Transport service offer
	<b>U1S1.2</b> – To match the demand with the company’s offer to take a decision	
<b>U1S3 – To CHOOSE POSSIBLE SUB-CONTRACTORS</b>	<b>U1S3.1</b> – To identify the elements to sub-contract for transport	
	<b>U1S3.2</b> – To select a sub-contractor	

### Description of skills

Skills	Detailed skills	Limitations or content	Pedagogical advice
<b>U1S1 – To EVALUATE THE FEASIBILITY OF TRANSPORT OPERATIONS</b>	<b>U1S1.1</b> – To qualify the enquiry for transport	<ul style="list-style-type: none"> <li>-Identification of relevant information provided by the client</li> <li>-Only to be done in response of a client’s request</li> <li>-Request of the missing elements that are necessary for the assessment</li> <li>-Analysis of the request</li> <li>-Assessment methodology</li> </ul>	<ul style="list-style-type: none"> <li>-Use a step-by-step approach to make learners understand the impact of each element on the transport mission transmitted by the client</li> <li>-Propose case studies of increasing difficulty</li> <li>-Could be developed in a company or at school/training center using role-play (learn to ask relevant questions to the client) and/or case studies</li> <li>-Require the use of communication tools, such as telephone, e-mail...</li> </ul>

	<b>U1S1.2</b> – To match the demand with the company’s offer to take a decision	<ul style="list-style-type: none"> <li>-Understanding and respect of the company’s service offer</li> <li>-Comparison of the results of the assessment with the company’s service offer</li> <li>-Decision-making in a pre-established frame</li> <li>-Identification of any necessary adjustments in the company’s service offer</li> </ul>	<ul style="list-style-type: none"> <li>-Could be developed in a company or at school/training center with case studies</li> <li>-Use real case studies with updated information from companies</li> <li>-Vary company profiles to work on a wide range of offers</li> </ul>
<b>U1S3 – To CHOOSE POSSIBLE SUB-CONTRACTORS</b>	<b>U1S3.1</b> – To identify the elements to sub-contract for transport	<ul style="list-style-type: none"> <li>-The pre-established company’s service offer</li> <li>-Being able to ascertain which requests can be satisfied within the company’s service offer</li> </ul>	<ul style="list-style-type: none"> <li>-Could be developed in a company or at school/training center</li> <li>-Use real case studies with updated information from companies allowing to understand the different reasons to sub-contract</li> </ul>
	<b>U1S3.2</b> – To select a sub-contractor	<ul style="list-style-type: none"> <li>-Searching strategies for possible sub-contractors</li> <li>-Analysis and comparison techniques of the service offer of sub-contractors</li> <li>-Pre-established criteria for the selection of sub-contractor.</li> </ul>	<ul style="list-style-type: none"> <li>-Could be developed in a company or at school/training center</li> <li>-Provide exemplary service offers to learners and a company’s sub-contracting criteria and make them select the best offers</li> <li>-Working groups could be organised to make learners discuss about the different offers</li> <li>-Use the information from the subcontractor monitoring dashboards</li> </ul>

**Description of knowledge**

<b>Associated knowledge</b>	<b>Content</b>	<b>Pedagogical advice</b>
<b>U1K1</b> – Transport demand	<ul style="list-style-type: none"> <li>-The essential elements of the transport request: the client, the characteristics of the shipment and the ancillary services</li> </ul>	<ul style="list-style-type: none"> <li>-Explain the essential elements using a step-by-step approach to make learners understand the impact of each element on the transport mission</li> <li>-Propose case studies of increasing difficulty</li> <li>-Role-play (one playing the client, one the transport manager) to train asking the relevant questions to the client</li> </ul>

<b>U1K2</b> – Supply chain management	<ul style="list-style-type: none"> <li>-The actors of the logistics chain, their place and role</li> <li>-Analysis of the flows between the different players in the logistics chain.</li> </ul>	<ul style="list-style-type: none"> <li>-Presentation of each actor, their place and role in the logistics chain</li> <li>-Ask learners to summarise the information using structuring methods to present information in a clear way, e.g. mind mapping or sketch noting (visual and graphical method of organising information, which helps to understand complex relationships)</li> </ul>
<b>U1K3</b> – Transport means and modes including multimodal options	<ul style="list-style-type: none"> <li>-The technical, geographical, economic and environmental characteristics of the five modes of transport and of multimodal transport.</li> <li>-The main transport networks in the European Union.</li> </ul>	<ul style="list-style-type: none"> <li>-Introduce the main characteristics of the five modes of transport and of multimodal transport</li> <li>-The “Expert and peer learning groups” method could be used to go more in depth (see explanations in the footnote)<sup>1</sup>.</li> <li>-Introduce the main transport networks in the EU using digital tools</li> <li>-Use online quizzes or digital applications (Anki, Quizlet...) to memorise the most important information</li> </ul>
<b>U1K5</b> – Transport service offer	<ul style="list-style-type: none"> <li>-Full and part load transport</li> <li>-Groupage</li> <li>-Chartering</li> <li>-Courier and express delivery</li> <li>-Intermodal Transport Units</li> <li>-Bulk transport</li> <li>-Specialised transport: transport of temperature-controlled goods, dangerous goods, exceptional transport</li> <li>-Removal transport</li> <li>-Freight forwarding</li> </ul>	<ul style="list-style-type: none"> <li>-Flipped classroom method: teacher provides learners with information about the different transport service offers / students learn at home / the time in class is used to answer questions and discuss short study cases about each transport service offer specificity</li> <li>- Can be studied in the case studies provided to learners throughout the module</li> </ul>

**Prerequisite**

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<sup>1</sup> Create groups of 6 learners = “peer learning groups”. Each learner is responsible for acquiring more knowledge about one of the transport modes or intermodal transport. To do so, learners meet in “expert groups” about their topic to study together and prepare a presentation (if relevant, teacher can provide a template), then they return to their initial group meaning that in every peer learning group, there is one member of each expert group. Experts transmit their knowledge using the material prepared in the expert group, retaining in turn the information presented by their colleagues, experts in the other modes.

## Module N° 2: Organisation and running of transport operations

### Link with the skills repertory

Unit 1: To implement freight transport operations

### Professional situation(s)

The Transport and Logistics Operational Manager organizes ad hoc or scheduled operations taking into account economic, environmental, social and legal requirements. He/she may be required to process customs formalities.

### Module Objectives

Detailed skills	Associated knowledge
<b>U1S2.1</b> – To choose one or more modes and means of transport	<b>U1K4</b> – Organisation of a transport company <b>U1K6</b> – Regulations for the transport of goods <b>U1K8</b> – Regulations for customs for the transport of goods <b>U1K9</b> – Incoterms <b>U1K10</b> – Loading plan <b>U1K11</b> – Routes, traceability and mapping tools <b>U1K12</b> – Scheduling and planning methods <b>U1K14</b> – Transport related insurance
<b>U1S2.2</b> – To operate and adjust the transport network	
<b>U1S2.3</b> – To choose the delivery procedures	
<b>U1S2.4</b> – To clear customs	

### Description of skills

Detailed skills	Limitations or content	Pedagogical advice
<b>U1S2.1</b> – To choose one or more modes and means of transport	<ul style="list-style-type: none"> <li>- Identification of the different characteristics of the means of transport,</li> <li>- Advantages and disadvantages regarding the situation to study,</li> <li>- Weighted selection criteria for the selection of the best option</li> </ul>	<ul style="list-style-type: none"> <li>-Teacher/Tutor creates case-studies for different goods: students find out in groups, which transport modes are the best for each goods category</li> <li>- Insist on the method and criteria of choice</li> <li>- It is necessary to argue the choices made</li> </ul>
<b>U1S2.2</b> – To operate and adjust the transport network	<ul style="list-style-type: none"> <li>- Use of the most appropriate network elements</li> <li>- Need for an organization plan</li> <li>- Reaction needed if the network must be reconstructed</li> </ul>	<ul style="list-style-type: none"> <li>-Could be developed in a company or at school</li> <li>-Working groups could be organised to make learners discuss about the different possibilities</li> <li>- Use cooperative learning (for example work alone, then partner work and foursome talk at the end)</li> </ul>
<b>U1S2.3</b> – To choose the delivery procedures	<ul style="list-style-type: none"> <li>- Identification of the different delivery procedures,</li> <li>- Advantages and disadvantages in respect with the transport orders and in</li> </ul>	<ul style="list-style-type: none"> <li>-Could be developed in a company or at school/training center</li> <li>-Provide exemplary delivery procedures to learners and make them select the best ones</li> </ul>

	<p>relation to the costs of transport</p> <ul style="list-style-type: none"> <li>- Weighted selection criteria for the selection of the best option</li> </ul>	<ul style="list-style-type: none"> <li>-Working groups could be organised to make learners discuss about the different possibilities</li> <li>-A cooperative learning can be used as well</li> </ul>
<b>U1S2.4</b> – To clear customs	<ul style="list-style-type: none"> <li>- Selection of the Incoterms in coordination with the clients</li> <li>-Modalities of import and export clearance in compliance with customs &amp; tax-legislation.</li> <li>-Customs procedure including all the necessary documents.</li> <li>-Evaluation of import duties and taxes</li> </ul>	<ul style="list-style-type: none"> <li>-Describe the different documents to the students through different situations</li> <li>- Alert on the key information to pay attention to</li> <li>-Focus on the capacity to identify applicable regulations</li> <li>-Insist on the necessary rigour in the calculations</li> <li>- Use customs websites</li> </ul>

### **Description of knowledge**

<b>Associated knowledge</b>	<b>Content</b>	<b>Pedagogical advice</b>
<b>U1K4</b> – Organisation of a transport company	<ul style="list-style-type: none"> <li>-The different kinds of transport companies.</li> <li>-Organization chart and job profiles.</li> </ul>	<ul style="list-style-type: none"> <li>-Multiply the examples of transport companies</li> <li>-Bring in professionals to present their company and their organisation</li> </ul>
<b>U1K6</b> – Regulations for the transport of goods	<ul style="list-style-type: none"> <li>-Customs regulations,</li> <li>-Rules for transporting specific goods (dangerous, refrigerated, fragile...)</li> <li>-Traffic regulations</li> <li>-Rules for driving hours, working times.</li> <li>-Workplace regulations.</li> </ul>	<ul style="list-style-type: none"> <li>-Students are given (or research by themselves) text contents with regulations in order to recognize the need and the advantage of regulations.</li> <li>-Be vigilant about the updating of regulations</li> </ul>
<b>U1K8</b> – Regulations for customs for the transport of goods	<ul style="list-style-type: none"> <li>-Modalities of import and export clearance in compliance with customs &amp; tax-legislation.</li> <li>-Customs procedure</li> <li>-Customs documents</li> </ul>	<ul style="list-style-type: none"> <li>-Showing slides with the different documents, handing out copies to the students.</li> <li>-Case studies to decide a means of transport.</li> <li>-Flipped classroom method: teacher provides learners with information about the different regulations/ students learn at home / the time in class is used to answer questions and discuss short study cases about each regulation</li> </ul>
<b>U1K9</b> – Incoterms	<ul style="list-style-type: none"> <li>-Cost sharing according to Incoterms</li> </ul>	<ul style="list-style-type: none"> <li>-Give an overview about the different rules of Incoterms.</li> </ul>

	-Risk sharing according to Incoterms	-Practical case studies by creating examples for transport situations. - Provide quotations exercises
<b>U1K10</b> – Loading plan	-Measurements and capacity of the loading units -Loading plan techniques, mathematically and graphically	-Use case studies for transport examples. -Find out the most appropriated transport system. -Use the spreadsheets and software available
<b>U1K11</b> – Routes, traceability and mapping tools	-Only the routes and mapping tools for transport are relevant here. -Maps of national and European roads and motorways/railway junctions and important railway loading places, worldwide shipping routes and airports	-Use case studies -Use the digital mapping tools and resources
<b>U1K12</b> – Scheduling and planning methods	-Transport exchange tools	-Provision of transport exchange tools for inhouse or school training.
<b>U1K14</b> – Transport related insurance	-The different types of insurance and the covered risks -The cost of insurance	-Comparing different insurance companies concerning costs and efforts.

**Prerequisite**

Module 1
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## Module N° 3: Monitoring of transport operations and improvement of the performance of transport

### Link with the skills repertory

Unit 1: To implement freight transport operations

### Professional situation(s)

The Transport and Logistics Operational Manager must continuously seek to optimize the transport operations to stay competitive and to respond to increasing clients' expectations and social requirements in compliance with rules, safety and security regulations and customs requirements. As an operational manager, he/she can foster the development of a sustainable economy and the overall greening process through his/her actions and decisions.

### Module Objectives

Skills	Detailed skills	Associated knowledge
<b>U1S4 – To MONITOR TRANSPORT OPERATIONS</b>	<b>U1S4.1</b> – To ensure traceability to check conformance of the transport operation	<b>U1K7</b> – Regulations relating to social practices, health, safety, and the environment
	<b>U1S4.2</b> – To implement mitigation measures	<b>U1K11</b> – Routes, traceability and mapping tools
	<b>U1S4.3</b> – To resolve incidents	<b>U1K13</b> – Incidents and unforeseen events
<b>U1S5 – To IMPROVE THE PERFORMANCE OF TRANSPORT OPERATIONS</b>	<b>U1S5.1</b> – To design quantitative and qualitative indicators	<b>U1K14</b> – Transport related insurance
	<b>U1S5.2</b> – To identify areas for improvement	<b>U1K15</b> – Procedures for incident management
	<b>U1S5.3</b> – To propose corrective actions to decision-makers	<b>U1K16</b> – Key Performance Indicators <b>U1K17</b> – Quality monitoring methods

### Description of skills

Skills	Detailed skills	Limitations or content	Pedagogical advice
<b>U1S4 – To MONITOR TRANSPORT OPERATIONS</b>	<b>U1S4.1</b> – To ensure traceability to check conformance of the transport operation	- Identification of the role and the traceability tools to be used, - Traceability techniques in the performance and monitoring of the transport operation and logistics services	- Could be developed at school, but also in a company for more realism and efficiency - Insist on the impact this skill has on the quality and reliability of the indicators used in the dashboards
	<b>U1S4.2</b> – To implement mitigation measures	- Selection of the relevant information from the traceability system - Methods of carrying out transport operations	- Could be developed in a company or at school with role-play and/or case studies
	<b>U1S4.3</b> – To resolve incidents	- The situation must be qualified,	- Could be developed in a company or at school with

		<ul style="list-style-type: none"> <li>- Consequences of the incident or unforeseen event, in terms of liability and in commercial terms,</li> <li>- Assessment of the urgency and seriousness of the incident or unforeseen event,</li> <li>- Technical, commercial and organisational measures to preserve the goods, and ensure the transport operation,</li> <li>- Consequences of these measures on the transport schedule and plan</li> </ul>	<p>role-play and/or case studies: it is important to put the learners in the most real situation possible</p> <ul style="list-style-type: none"> <li>- Insist on the necessary adaptability and reactivity in the follow-up of the transport</li> <li>- Requires the use of communication tools, especially telephone, with the client during role-playing</li> </ul>
<b>U1S5 – To IMPROVE THE PERFORMANCE OF TRANSPORT OPERATIONS</b>	<b>U1S5.1 – To design quantitative and qualitative indicators</b>	<ul style="list-style-type: none"> <li>- Identification of expected results and objectives</li> <li>- Identification of the performance indicators</li> <li>- Data-collection</li> <li>- Data processing</li> </ul>	<ul style="list-style-type: none"> <li>- Use dashboards to highlight significant impacts,</li> <li>- Insist on the necessary reliability, updating and relevance of indicators</li> <li>- The use of spreadsheets is recommended: from simple functions to stable dynamic cross-tabulations</li> </ul>
	<b>U1S5.2 – To identify areas for improvement</b>	<ul style="list-style-type: none"> <li>- Gaps between indicators and targets</li> <li>- Focus on the key issues</li> </ul>	<ul style="list-style-type: none"> <li>- Select specific work situations</li> <li>- Establish links between indicators</li> <li>- Students are to be put in relation with the evolutions of the logistics market (social and corporate responsibility, quality of service...)</li> <li>- The focus should not be on the completeness of the treatment of indicators, but on the precise identification of an identified problem</li> </ul>
	<b>U1S5.3 – To propose corrective actions to decision-makers</b>	<ul style="list-style-type: none"> <li>- Reporting techniques on the analysis of the indicators</li> <li>- Causes of poor-quality information</li> <li>- Proposals for corrective action</li> </ul>	<ul style="list-style-type: none"> <li>- Simulations using a spreadsheet or other software tools (use of pivot tables, the target value tool, macro) can be carried out.</li> </ul>

			- Have the students work in groups, each group proposing and arguing a solution orally or in writing
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**Description of knowledge**

<b>Associated knowledge</b>	<b>Content</b>	<b>Pedagogical advice</b>
<b>U1K7</b> – Regulations relating to social practices, health, safety, and the environment	-Collective agreements, social law and European regulations -The hierarchy of legal sources	- Not to be exhaustive, but to show how and where to find the right information in a given situation - Consider now the links between the regulations and the indicators to be produced - Base the teaching on the study of many different cases covering the different fields of social practises, health, environment and safety
<b>U1K11</b> – Routes, traceability and mapping tools	-Only the traceability tools for transport are relevant here -The issues and general principles of traceability of goods and materials -Identification and data collection tools -The impact of traceability on the quality and performance of the transport operations	- Not to be exhaustive, but to present the traceability tools most used in companies - To follow the evolution of technologies in this field (e.g. by setting up a watch or going to trade fairs) - To raise awareness of the importance of traceability for transport companies, in a context of increasing digitalisation and ever higher demands for quality and client feedback
<b>U1K13</b> – Incidents and unforeseen events	-Characteristics of an incident and an unforeseen event -Consequences of an incident and an unforeseen event	- To work on transport companies' examples - To multiply the examples in order to identify similarities and differences between the situations studied
<b>U1K14</b> – Transport related insurance	-Insurable risks -The main insurances related to transport: insurance of the goods transported, ("cargo insurance"), civil	-The teaching is based on the study of the main provisions of each insurance, and on insurance contracts when possible.

	liability insurance and fleet insurance.	
<b>U1K15</b> – Procedures for incident management	<ul style="list-style-type: none"> <li>-The responsibility of the carrier</li> <li>-Measures to safeguard the goods</li> <li>-Precautionary measures</li> <li>-Communication with clients in incident management</li> </ul>	<ul style="list-style-type: none"> <li>- Rely on company protocols</li> <li>- Consider that multiple solutions are possible</li> <li>- Have learners compare the different proposals in terms of ease of implementation, of effectiveness and of cost.</li> </ul>
<b>U1K16</b> – Key Performance Indicators	<ul style="list-style-type: none"> <li>-The components of business performance</li> <li>-Quantitative and qualitative indicators</li> </ul>	<ul style="list-style-type: none"> <li>-Use simple dashboards made with a spreadsheet, with simple built-in spreadsheet functions</li> <li>-Process data with ratio calculations and graphs</li> <li>-No programming of functions is required.</li> </ul>
<b>U1K17</b> – Quality monitoring methods	<ul style="list-style-type: none"> <li>-Operational analysis methods</li> <li>-Cause analysis methods</li> <li>-Methods for choosing solutions</li> <li>-Methods for optimising a process</li> </ul>	<ul style="list-style-type: none"> <li>- Simulations using a spreadsheet or other software tools (use of pivot tables, target value tool, macro) can be performed</li> <li>- Present one or two methods at a time: for example Ishikawa diagram and Pareto diagram for the cause analysis methods, compatibility matrix and decision tree for the methods for choosing solutions</li> </ul>

**Prerequisite**

<p>Module N° 1: Evaluation of the feasibility of transport operations and selection of sub-contractors</p> <p>Module N° 2: Organisation and running of transport operations</p>
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## Module N° 4: Designing warehouse solutions and improvement of the performance of warehousing services

### Link with the skills repertory

Unit 2: To organise and to manage warehouse activities associated with transport

### Professional situation(s)

Within the framework of an identified (global) supply chain, the Transport and Logistics Operational Manager is a contributor to an operation or a transport plan, whereby he/she is responsible to organize the required logistic means from receipt of the goods up until they are loaded, including storage and the preparation of orders. He/she uses available physical resources to ensure the efficient provision of the services. He/she may be led to suggest improvements and to participate in the design of the warehouse organization.

### Module Objectives

Skills	Detailed skills	Associated knowledge
<b>U2S1 – TO DESIGN WAREHOUSE SOLUTIONS</b>	<b>U2S1.1</b> – To qualify the demand for warehousing services	<b>U2K1</b> – Enquiry of logistic services <b>U2K2</b> – Logistic services offer <b>U2K3</b> – Organisation of a company with a warehouse activity <b>U2K4</b> – Warehousing areas <b>U2K11</b> – Regulations relating to social practices, health, safety, and the environment <b>U2K12</b> – Pricing for warehousing services <b>U2K13</b> – Procedures for incident management <b>U2K14</b> – Warehouse optimisation methods
	<b>U2S1.2</b> – To choose the terms and conditions for the realisation of the services	
	<b>U2S1.3</b> – To size the space and resources required	
<b>U2S3 – TO IMPROVE THE PERFORMANCE OF WAREHOUSING SERVICES</b>	<b>U2S3.1</b> – To design quantitative and qualitative indicators with a view to progress	
	<b>U2S3.2</b> – To propose corrective actions to decision-makers	
	<b>U2S3.3</b> – To rationalise the layout of warehouse areas and the storage location of products	

### Description of skills

Skills	Detailed skills	Limitations or content	Pedagogical advice
<b>U2S1 – TO DESIGN WAREHOUSE SOLUTIONS</b>	<b>U2S1.1</b> – To qualify the demand for warehousing services	-Identification of the relevant information provided by the client -Missing elements that are necessary for the assessment -Methods of analysis of the demand -Methodology used for the qualification	-Use a step-by-step approach to make learners understand the impact of each element on the warehousing mission transmitted by the client -Could be developed in a company or at school with role-play (learn to ask relevant questions to the client) and/or case studies

			-Can require using communication tools, such as telephone, e-mail...
	<b>U2S1.2</b> – To choose the terms and conditions for the realisation of the services	-Regulations to be applied -Different ways to carry out the logistic services required by the client in accordance with the warehouse resources - Price calculation for the realisation of the services	-Could be developed in a company or at school with case studies or in the warehouse school  -Use real case studies with updated information from companies (above all update tariffications)
	<b>U2S1.3</b> – To size the space and resources required	- Identification of the types of resources required - Calculation of the numbers of resources required - Calculation of the space required	-Could be developed in a company or at school with case studies or in the warehouse school
<b>U2S3 – To IMPROVE THE PERFORMANCE OF WAREHOUSING SERVICES</b>	<b>U2S3.1</b> – To design quantitative and qualitative indicators with a view to progress	- Identification of the expected results and objectives - Identification of the performance indicators - Data-collection - Data processing	- Based on dashboards to highlight significant impacts  - Insist on the necessary reliability, updating and relevance of indicators  - The use of spreadsheets is recommended: from simple functions to stable dynamic cross-tabulations
	<b>U2S3.2</b> – To propose corrective actions to decision-makers	- Analysis of the gaps between indicators and targets - Focus on the key issues - Reporting of the analysis of the indicators - Identification of the causes of non-quality and non-performance - Proposals of corrective actions	- Select specific work situations - Establish links between indicators - Students are to be put in relation with the evolutions of the logistics market (social and corporate responsibility, quality of service...) - The focus should not be on the completeness of the treatment of indicators, but on the precise identification of an identified problem

			-Simulations using a spreadsheet or other software tools (use of pivot tables, the target value tool, macro) can be carried out.
	<b>U2S3.3</b> – To rationalise the layout of warehouse areas and the storage location of products	According to the analyse of the indicators: - Redesigns of the warehouse flows organisation - Suitable storage location for products	-Could be developed in a company or at school with case studies or in the school warehouse -Use real case studies from companies

### **Description of knowledge**

<b>Associated knowledge</b>	<b>Content</b>	<b>Pedagogical advice</b>
<b>U2K1</b> – Enquiry of logistic services	-The essential elements of the logistic services request: the client, the characteristics of the logistic services	-Explain the essential elements using a step-by-step approach to make learners understand the impact of each element on the logistic mission -Role-play (one playing the client, one the logistic manager) to train asking the relevant questions to the client
<b>U2K2</b> – Logistic services offer	-Goods reception -Storage -Order preparation -Packing -Expedition -Packaging returns	-Flipped classroom method: teacher provides learners with information about the different transport service offers / students learn at home / the time in class is used to answer questions and discuss short study cases about each transport service offer specificity - can be studied in the case studies provided to learners throughout the module
<b>U2K3</b> – Organisation of a company with a warehouse activity	-Methods of analysis of human resource needs and types of packaging equipment systems and handling of goods	-Provide learners with multiple examples of companies with warehouse activities -Use visual and structuring methods to summarise the information and present it in a clear way, e.g. mind mapping or sketch noting (visual and

		graphical method of organising information, which helps to understand complex relationships)
<b>U2K4 – Warehousing areas</b>	<ul style="list-style-type: none"> <li>-The structure of warehouses and distribution centres</li> <li>-The role of the different warehouse areas</li> <li>-The method to size the different areas</li> </ul>	<ul style="list-style-type: none"> <li>- Relate the organisation of the warehouse to the type of goods to be handled and their packaging, as well as to the volume and seasonality of flows and stocks, and the specific regulations for certain goods (e.g. hazardous materials)</li> <li>-Use maps of warehouses</li> <li>- Organise visits to warehouses</li> <li>- Consider the different areas in a flow logic</li> </ul>
<b>U2K11 – Regulations relating to social practices, health, safety, and the environment</b>	<ul style="list-style-type: none"> <li>-Safety and hygiene regulations in warehouses for people and goods.</li> <li>-Risk prevention and health surveillance plans.</li> <li>-National and European social regulations relevant in the work organisation</li> <li>-Collective agreements</li> <li>-National and European regulations about environment</li> </ul>	<ul style="list-style-type: none"> <li>- Not to be exhaustive, but to show how and where to find the right information in a given situation</li> <li>- Base the teaching on the study of many different cases covering the different fields of social practises, health, environment and safety</li> </ul>
<b>U2K12 – Pricing for warehousing services</b>	<ul style="list-style-type: none"> <li>-The components of the different tariffs</li> <li>-The determination of the price of logistics services</li> </ul>	<ul style="list-style-type: none"> <li>-These can be learned in school and practised in a company.</li> <li>-Teaching should be based on rates used in the profession and be based on pre-existing tariffs.</li> <li>-Costs do not have to be calculated but must be taken into account from a profitability perspective.</li> </ul>
<b>U2K13 – Procedures for incident management</b>	<ul style="list-style-type: none"> <li>-The responsibility of the warehouse</li> <li>-Protocols or procedures for action in the event of incidents.</li> <li>-Measures to safeguard the goods</li> </ul>	<ul style="list-style-type: none"> <li>- Rely on company protocols</li> <li>- To be studied in accordance with the type of equipment, installations and goods handled.</li> <li>- Consider that multiple solutions are possible</li> </ul>



	<ul style="list-style-type: none"> <li>-Communication with clients in incident management</li> <li>-Specific risk prevention procedures in the warehouse</li> </ul>	<ul style="list-style-type: none"> <li>- Have learners compare the different proposals in terms of ease of implementation, of effectiveness and of cost.</li> </ul>
<b>U2K14</b> – Warehouse optimisation methods	<ul style="list-style-type: none"> <li>-Method for locating logistics spaces</li> <li>-Method for optimising internal flows</li> <li>-The contribution of the use of new technologies in the warehouse</li> </ul>	<ul style="list-style-type: none"> <li>It is recommended to practice these in a company</li> <li>Use flipped classroom</li> <li>Rely on expert</li> <li>Use role-playing of oral professional situations</li> <li>Use digital simulation software (augmented reality)</li> </ul>

***Prerequisite***

No.
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## Module N° 5: Coordination of warehouse operations

### Link with the skills repertory

Unit 2: To organise and to manage warehouse activities associated with transport

### Professional situation(s)

The Transport and Logistics Operational Manager is responsible to organize the required logistic means from receipt of the goods up until they are loaded, including storage and the preparation of orders. He/she uses available physical resources to ensure the efficient provision of the services.

### Module Objectives

Detailed skills	Associated knowledge
<b>U2S2.1</b> – To plan warehousing activities	<b>U2K5</b> – Warehouse flows management <b>U2K6</b> – Scheduling and planning methods <b>U2K7</b> – Documentation for the logistic services <b>U2K8</b> – Warehouse management system <b>U2K9</b> – Traceability and its tools <b>U2K10</b> - Stock management
<b>U2S2.2</b> – To ensure the traceability to check conformance of the warehousing services	
<b>U2S2.3</b> – To resolve incidents	

### Description of skills

Detailed skills	Limitations or content	Pedagogical advice
<b>U2S2.1</b> – To plan warehousing activities	- Calculation methods to estimate the time required to carry out the logistics services, or based either on standards known to the profession or based on the company's experience - Management of the priorities and constraints - Size of the necessary human and material resources - Allocation methods for the different resources	- Must be dealt with the dual objective of guaranteeing quality of service to clients and achieving maximum profitability. - Consider the schedule as a dynamic tool that evolves to take into account unforeseen events (e.g., changes in client requests or unforeseen events and incidents). - Must be based on the company's information system - Could be learned at school/training center or in a company
<b>U2S2.2</b> – To ensure the traceability to check conformance of the warehousing services	- Identification of the role and the traceability tools to be used, - Implementation of the traceability techniques and their role in the performance and the monitoring of the logistics services	- Could be developed at school/training center or in a company, with more realism and efficiency in the latter case
<b>U2S2.3</b> – To resolve incidents	- The situation should be qualified - Consequences of the incident, in terms of liability	- Could be developed in a company or at school with role-play and/or case studies

	<p>and in commercial terms,</p> <ul style="list-style-type: none"> <li>- Technical, commercial and organisational measures to preserve the goods, and ensure the logistic operation,</li> <li>- Consequences of these measures on the transport schedule and plan.</li> </ul>	<ul style="list-style-type: none"> <li>- Insist on the necessary adaptability and reactivity in the follow-up of the logistic operation</li> </ul>
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<b>Associated knowledge</b>	<b>Content</b>	<b>Pedagogical advice</b>
<b>U2K5</b> – Warehouse flows management	<ul style="list-style-type: none"> <li>-Goods receipt and dispatch</li> <li>-Warehousing and storage</li> <li>-Order picking and packaging</li> <li>-Management of load carriers and packaging returns</li> </ul>	<ul style="list-style-type: none"> <li>- Can be studied in companies or at school.</li> <li>- Company visits can be very beneficial</li> </ul>
<b>U2K6</b> – Scheduling and planning methods	<ul style="list-style-type: none"> <li>-Time calculation</li> <li>-Time standards</li> <li>-Designing a schedule</li> <li>-Using a schedule</li> <li>-Assessing a schedule</li> </ul>	<ul style="list-style-type: none"> <li>- Work on planograms including different types of constraints (time constraints, availability of equipment and personnel, etc.)</li> <li>- Rely on the WMS</li> <li>- The evaluation of the planning can be carried out by calculating the commitment rate and the occupancy rate</li> </ul>
<b>U2K7</b> – Documentation for the logistic services	<ul style="list-style-type: none"> <li>-The documents necessary for logistical operations</li> <li>-Dematerialisation in warehouse logistics</li> </ul>	<ul style="list-style-type: none"> <li>- Use real companies documents</li> </ul>
<b>U2K8</b> – Warehouse management system	<ul style="list-style-type: none"> <li>-The role of the information system in supply chain management</li> <li>-Integrated solutions</li> <li>-Data exchanges</li> <li>-Specific software: mapping, route management, loading plan, planning, etc.</li> <li>-On-board computing</li> <li>-The spreadsheet</li> </ul>	<ul style="list-style-type: none"> <li>- Could be developed mainly in a company</li> </ul>
<b>U2K9</b> – Traceability and its tools	<ul style="list-style-type: none"> <li>-The traceability tools in the warehouse</li> <li>-The impact of traceability on the quality and performance of the warehousing operations</li> </ul>	<ul style="list-style-type: none"> <li>- Only the traceability tools for warehousing operations are relevant here</li> <li>- Not to be exhaustive, but to present the traceability tools most used in companies</li> </ul>

		<ul style="list-style-type: none"> <li>- To follow the evolution of technologies in this field (e.g. by setting up a watch or going to trade fairs)</li> <li>- To raise awareness of the importance of traceability for logistic companies, in a context of increasing digitalisation and ever higher demands for quality and client feedback</li> <li>- Use of specialised tools and software. The training periods in companies will be used to this advantage.</li> </ul>
<b>U2K10</b> - Stock management	<ul style="list-style-type: none"> <li>-The different types of stock (safety stock, emergency stock, minimum stock, etc.)</li> <li>-The different methods of inventory management (inventory carrying costs, ordering costs)</li> <li>-Inventory valuation (First In, First Out - Weighted average unit cost methods)</li> <li>-Inventory management does not include probabilities</li> </ul>	<ul style="list-style-type: none"> <li>- Emphasise the impact of the choice of method on the results of stock valuation</li> <li>- Work on simple situations</li> </ul>

**Prerequisite**

<p>Module N° 4: Designing warehouse solutions and improvement of the performance of warehousing services, U2S1 – To design warehouse solutions</p>
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## **Key advice**

For each module and through each pedagogical activity, teachers and trainers will pay attention to the development of all the transversal competences, autonomy, and responsibility as it is described in the skills repertory.

### **Transversal competences, autonomy and responsibility**

To succeed in his/her job, the transport and logistics operational manager is required to have a range of transversal competences. He/she demonstrates flexibility, reactivity, creativity, rigor, organisation, and respect of regulations and professional ethics especially when he/she charts transport operations. He/she must be always aware of the different rules about working environment and conditions and take into account the Corporate Social Responsibility principles.

The transport and logistics operational manager must be able to work under pressure, to solve problems in a calm manner, to take into account the interests of others while remaining firm and assertive to defend the interests of his/her company. He/she must have strong leadership and relational skills as he/she is in a position of coordinating a team and cooperates with many different internal and external interlocutors. He/she must be able to communicate in English and have a good understanding of intercultural relations. At the same time, he/she shows genuine interest on the new transport and logistic processes using digitalisation.

Transport and logistics operational managers are autonomous in and responsible for their daily work in the framework of the company's objectives and will be held accountable for it. Their level of autonomy will depend on their working experience, the company's size, structure, and activity (transport and logistics or industrial and commercial activity), as well as the diversity and complexity of the activities they have to deal with and the processes they work on; this level of autonomy will ultimately be determined by the manager to whom they report. As operational managers, their autonomy impacts the development of a more sustainable and greener economy through their actions and decisions. They work under a regular validation process of their hierarchical responsible.