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ITL

Report ECVET points assignment protocol

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Definitions related to Learning Outcomes

European definition - CEDEFOP

Learning outcomes are statements of what a learner knows, understands and is able to do on a completion of a learning process, which are defined in terms of Knowledge, skills and competences

Knowledge is the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices related to a field of study or work. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual.

Skills is the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).

Competence is the ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy. Sometimes it is pointed out to be the decisive factor in the process of referencing qualifications to a qualifications frameworks level.

KSC Descriptors are knowledge, skills and competence descriptors

LO Units - Learning Outcomes Units

ECVET definitions

ECVET points are a numerical representation of the overall weight of Learning Outcomes in a qualification and of the relative weight of units in relation to the qualification.

European Credit System for Vocational Education and Training (ECVET) is a technical framework for the transfer, recognition and, where appropriate, accumulation of individuals learning outcomes with a view to achieving a qualification.

Introduction

The Work Package 4 “Deployment: ECVET point assignment” aims to apply some of the concepts related to the ECVET system, and in particular the ECVET points. Other relevant ECVET tools and methods have been used during the previous Work Package (3), in order to identify the LOs units and the KSC descriptors for the two concerned qualifications:

- Warehouse Operator (field: perishable goods)
- Warehouse Manager (field: pharmaceutical products)

First of all it seems necessary to define and clarify the main aspects and concepts related to ECVET, and especially to ECVET points.

The European credit system for vocational education and training (ECVET) is one of several European tools designed to make qualifications systems more easily understood and flexible throughout the European Union (EU) and so support more mobility for workers and learners

“European Credit System for Vocational Education and Training (ECVET) is a technical framework for the transfer, recognition and, where appropriate, accumulation of individuals’ learning outcomes with a view to achieving a qualification”

ECVET tools and methodology comprise:

- the description of qualifications in terms of units of learning outcomes with associated points,
- a transfer and accumulation process
- and complementary documents such as learning agreements, transcripts of records and ECVET users’ guides

ECVET is an instrument for mobility and recognition, the objectives are:

- recognition of learners’ achievements
- stimulating exchanges and mutual trust (Supporting mobility of European citizens)
- recognition of learning outcomes without extending learners’ education and training pathways (Facilitating lifelong learning)

ECVET points and credit

ECVET points are not to be confused with credit. While credit designates the learning outcomes the learner has achieved. ECVET points provide information about the qualification and the units.

Credit is transferred and accumulated. ECVET points provide information about the credit the learner has transferred and accumulated.

ECVET points are numerical representation of the overall weight of learning outcomes in qualification and of the relative weight of units in relation to the qualification.

Allocation of ECVET points to a qualification is based on using a convention according to which 60 points are allocated to the learning outcomes expected to be achieved in a year of formal full time VET.

ECVET allocates points to qualifications and not to education and training programs. But, who allocates ECVET points? The ECVET point's allocation is normally part of the design of qualifications and units and therefore is a task of the training experts (manager, tutor, professor, and teacher).

In this case, for the LIST project, a specific methodology has been transferred from CENTRAL project and used for achieving the objectives of the current analysis. The methodology used in the LIST project is fully described in the next chapter

Methodology

The methodology for weighting LOs unit is the same used within the CENTRAL project, of which LIST is a transfer of Innovation. The weighting of LOs Unit is preparatory for the allocation of ECVET points, but also for the next work packages in order to define the training program for the two selected and analysed qualifications.

ECVET points are a numerical representation of the overall weight of Learning Outcomes in a qualification and of the relative weight of units in relation to the qualification.

The starting point of the weighting of LOs Unit and allocation of ECVET points is the document elaborated during the work package 3 "LIST_WP3_Addings_LEARNING OUTCOMES". In this document the LOs Units are identified, as all the KSC descriptors for both the concerned qualifications:

- Warehouse Operator (field: perishable goods)
- Warehouse Manager (field: pharmaceutical products)

WEIGHTING and ALLOCATION PROCESS

The process for the weighting of LOs Units and the allocation of ECVET is characterized by the following steps:

1. Define and agree the criteria for weighting LOs UNITS
2. Identify the Weight of each Learning Outcomes UNIT consulting the national Scientific Committee
3. Define the total ECVET points to be assigned to each training program
4. Allocate the Total ECVET points to each Learning Outcomes UNIT using weights identified at EU level

In the work process are merged two different sub-processes: the weighting of LOs unit and the allocation of ECVET points.

Weighting Learning Outcomes Unit

- Define and Agree the criteria for weighting LOs UNITS (step 1)
- Identify the Weight of each Learning Outcomes UNIT consulting the national Scientific Committee (step 2)

Weighting Criteria

According to the CENTRAL project, the WEIGHT is expression of the importance of the LEARNING OUTCOMES Unit for the concerned qualification, with regard to:

- The inclusion in the LABOUR MARKET, the possible progress towards another qualification and with regard to the needs of the society.
- The complexity, the extent and the consistency of the learning outcomes included in the Unit.
- The level of effort necessary to acquire the knowledge, skills and competence required for the unit.

The above mentioned criterion helps the “evaluator” in the identification of the weight of each Learning Outcomes Unit. The Criteria has been shared, agreed and validated by all the LIST project partners and are therefore to basis for the assessment by the experts involved in the Scientific Committee.

Scientific Committee Consultation

Weights of the LOs Units are assessed by experts composing the Scientific Committee of the LIST project. At national level each partner has defined a national Scientific Committee that is useful both for a joint analysis at European level, both for national consideration and elaborations. The criteria, that each expert has to consider in order to assign the weight to each LOs unit are the ones agreed among the Consortium.

Weights have been assessed through a face to face interview, one or more workshops or a phone call/email in which every project partner has provided all the necessary information about the project and about ECVET and EQF.

As the assessment of the weight of each learning outcome is mainly performed individually by each expert, it normally happens to collect also weights that are quite different. In this case, the data and information have been analyzed in detail, considering:

- The category of expert/worker interviewed
- The position
- The national context.

If necessary, if some data are not reliable, they can be excluded. In general it is better to consider all the experts evaluations, justifying/motivating all of them.

Guidelines for the identification of the experts composing the national Scientific Committee are included in the document “Guidelines for establishment and Consultation of the Scientific Council” provided by ITL and available in the Annex of this document.

ECVET Points Allocation

- Define the total ECVET points to be assigned to each training program (step 3)
- Allocate the Total ECVET points to each Learning Outcomes UNIT using weights identified at EU level (step 4)

According to the EU definition, the total ECVET points assigned to a training program are related to the duration of the training:

- A full time year of training amounts to 60 credit points within the ECVET system

Duration of the training (Step 3)

A desk research at national level is necessary in order to assess and identify the duration of the training programs related to the two selected qualifications. The sources are:

- Training programs/courses (organized both by companies both by training providers) related to the selected qualifications: warehouse operator and manager (even if not specific for the Pharma and Food Industry)
- Regional or national regulations concerning training for the 2 specific qualifications (according to their EQF level for example)
- Other Studies/Regulations

Thanks to this survey on the training duration, one or more option can be proposed according to the target of the training and to the EQF level.

ECVET points allocation (Step 4)

Basing on the duration of the training identified at Consortium Level, and using the Weights defined by the Scientific Committee, the ECVET points are allocated.

The calculation follows simply mathematical rules. Therefore starting from the training duration selected, the total ECVET points for the qualification can be defined as follow.

EXAMPLE

Training Duration = 1000 hours = 1 year of training

1 year of training = 60 ECVET points

TOTAL ECVET point for the Training = 60

LOs Unit 1 WEIGHT = 20%

LOs Unit 2 WEIGHT = 40%

LOs Unit 3 WEIGHT = 40%

In conclusion:

LOs Unit 1 ECVET POINTS = 20% of 60 = 12

LOs Unit 2 ECVET POINTS = 40% of 60 = 24

LOs Unit 3 ECVET POINTS = 40% of 60 = 24

The following chapters present and describe the analysis, elaborations and results.

Warehouse operator for perishable goods

Job Description

Warehouse Operator (source: Central)

“The warehouse operators may work in a particular area or may be classed as multifunctional. They normally receive deliveries of goods and check them against the relevant documentation which may include scanning incoming goods. They may use a forklift truck to load, unload and move goods and have responsibility for replenishing stock. The work may also include order picking, inspection, weighing and packing ordered goods.”
Warehouse Operator in Perishable Goods:

Warehouse Operator (field: perishable goods)

“The warehouse operators in perishable goods may work in a particular area or may be classed as multifunctional. They normally receive deliveries of perishable goods and check them against sanitary issues, cold chain interruption and other relevant documentation which may include scanning incoming goods. They may use a forklift truck to load, unload and move goods and have responsibility for replenishing stock. The work may also include order picking, inspection, weighing and packing ordered perishable goods.”

Learning outcomes unit

- LOs Unit 1: take delivery of goods, transferring and repacking
- LOs Unit 2: storing and retrieving perishable goods
- LOs Unit 3: process the orders in order to ship them to the final customers

Scientific committee – list of involved experts/employees – Warehouse operator

ID n°	Country	Expert	Organization	Type/Sector	Position/Role
1	IT	Andrea Dalia	NAGEL	T&L Provider – Food Sector	Transport Technician
2	IT	Nicolò Scalmani	BIFFI	Food Industry	Warehouse Operator
3	IT	Carlo Merli	APM Terminals	MTO	CEO
4	IT	Luca Lanini	ITS Cesena	Training Provider (5 th EQF)	Director
5	IT	ITL Staff	ITL	Research Institute	Project Managers
6	FR	Pascal Roche	Ministry of Nat. Education	National Education- competent body in terms of certification	Reg. Educ. Inspector
7	FR	Maxime Dumont	CFTC	Representative of the sector regarding training and employment	President
8	FR	Benjamin Ollier	POMONA	Company - Food sector	Sales manager
9	FR	Grégory Mortreux	AFT	Training Provider	Training Expert
10	FR	Sylvain Molliere	AFTRAL	Training Provider	Responsible AFT schools
11	FR	Saou Ghadfa	AFT	Transport Sector	Regional delegate
12	BG	Prof. Ivan Petrov	Tranexpress Ltd	T&L Provider	Manager & Vice-Pres. FIATA
13	BG	Raiko Naydenov	Astellas	Company - Pharma Sector	Warehouse Manager

14	BG	Prof. Ilko Getov	Medical University	University	Dean Pharma Faculty
15	BG	Polixena Krastanova	BG Association for F.Forwarding, T. and L.	T&L Association	Director VET Center
16	BG	Venelin Sapunarov	BG Pharmaceutical Union, Sofia Reg. chamber,	Pharma Association	Chairperson
17	LU	DESSY Frederic*	PANALPINA	Transport / Pharma	RH Director
18	LU	HAIBA Issham*	PANALPINA	Transport / Pharma	Reg. Gateway LUX-FRA Air F. Ware. Sup. Lux.
19	LU	SILVERIO Patrick**	LUXAIR CARGO	National Pharma HUB	Manager – Special Serv.
20	LU	Jerome Hanff	HANFF SA	Distribution	CEO
21	SK	RDA Staff	RDA	Research Institute	Project Managers
22	SK	Alexandra Junaskova	State Institute of Vocational Education		
23	SK	Tomas Kobela	Asseco Central Europe		
24	SK	Erik Papp	SWOT spol. s r.o.		
25	SK	Lucia Filusova	Gebrüder Weiss		

Table 1: Scientific committee experts - warehouse operator assessment

Legend

*Joint Assessment

** Qualitative Assessment (LO's Unit Weights not allocated)

LO Unit 1: To take delivery of goods, to transfer and to repack			
LO's Unit 1 Weights	KNOWLEDGE	SKILLS	COMPETENCES
Average value per country Partners EU 29% Italy 34% France 18% Bulgaria 30% Luxembourg 35% Slovakia 30%	He / She has knowledge of: <ul style="list-style-type: none"> • The main rules of health and safety at work especially for handling operations • The different administrative documents related to the receipt of goods • The key regulatory requirements relating to loading and unloading goods • The different ways of transmitting and filling system of the documents • The different units/departments of the company • The key aspects of sustainable development • The occupational risk-prevention principles • Food products types: characteristics; handling techniques and constraints, pictograms • The basis of HACCP, DGP ... • The basic English terms relate to filling of the document and basic conversation 	He / She is able: <ul style="list-style-type: none"> • To accept goods • To check delivery against documentation • To indicate the status of packaging / pallet in order to accept / refuse delivery according to the type of goods (temperature, humidity, expiry date...) • To handle transport of / forward goods to company-internal destination taking into account the different specific storage areas (especially for controlled-temperature areas). • To unpack / sort goods taking into account the nature of the perishable goods • To distinguish physical quantities and types of perishable goods for proper storage in the warehouse • To use ICT tools to register the entry of the goods and its movement to the storage area. 	He / She is competent : <ul style="list-style-type: none"> • To apply the guidelines given by his/her team leader. • To coordinate his/her activities with different teams (mainly warehouse operators and actors that operate the transport/drivers) • To identify problems that occur in incoming goods and transmit the information to the team leader • To apply health and safety as well as sustainable development principles • To organize efficiently and effectively goods for the next step of the process

Table 2: Learning outcomes unit 1, warehouse operator, KSC descriptors

LO Unit 2: To store and to retrieve perishable goods			
LO's Unit 2 Weights	KNOWLEDGE	SKILLS	COMPETENCES
Average value per country Partners EU 41% Italy 38% France 49% Bulgaria 30% Luxembourg 48% Slovakia 43%	He / She has knowledge of: <ul style="list-style-type: none"> • Main rules of health and safety at work especially for handling operations • The key regulatory requirements relating to loading and unloading goods • Different ways of transmitting and filling system of the documents • Key aspects of sustainable development • Occupational risk-prevention principles • Equipment and IT tool types • Basics of HACCP, DGP ... • Main rules of storage and storage area safety • Storage and preservation pictograms related to the characteristics of the perishable goods • Different storage facilities and their characteristics • Storage specificity rules: cold chain, dangerous goods... • Documentation procedures in the warehouse 	He / She is able: <ul style="list-style-type: none"> • To use ICT tools (if available) to allocate storage destination according to the perishable goods' technical characteristics and storage areas • To move and to store goods efficiently and as required by the warehouse system • To use ICT tools to carry out checks (inventory, counts, etc), keep track/ documentation of goods' movements, monitor product flows and stock levels • To use ICT tools (if available) to evaluate availability, tracing and status of goods to answer requests of internal / external customers 	He / She is competent : <ul style="list-style-type: none"> • To use information systems to capture any reception flow • To interpret a storage plan • To determine the storage location of incoming goods taking into consideration their perishable nature • To develop activity reports • To apply rules of commodity preservation taking into account the stock turnover and expiry dates • To identify correctly the storage locations • To communicate well and efficiently with the different team members

Table 3: Learning outcomes unit 2, warehouse operator, KSC descriptors

LO Unit 3: To process the orders in order to ship them to the final customers			
LO's Unit 3 Weights	KNOWLEDGE	SKILLS	COMPETENCES
Average value per country Partners EU 30% Italy 28% France 33% Bulgaria 40% Luxembourg 18% Slovakia 28%	He / She has knowledge of: <ul style="list-style-type: none"> • Main rules of health and safety at work • Different administrative documents related to the shipping of perishable goods • Different ways of transmitting and filling system of the documents • Picking procedures and loading standards • Regulations and stipulations on labelling, marking, securing, sealing and stowing goods according to the transportation solution • Documentation procedures in outgoing goods • Basic English terms related to filling of the document and basic conversation 	He / She is able: <ul style="list-style-type: none"> • To prepare the documents related to the processing of orders • To use ICT tools to identify the availability, the location of the good and to register its removal from storage area • To greet the customers, to understand their needs, to draw up the commercial documents and picking stock • To prepare the shipment and to make sure that the package meets quality requirements and customer needs using the appropriate equipment • To wrap, to pack the goods and to prepare the documents related to the shipping of orders or overwrap when necessary. • To draw and to validate the internal document • To fill in the transport documents 	He / She is competent : <ul style="list-style-type: none"> • To develop and to implement a plan for efficient loading • To communicate and to coordinate the process with the driver • To communicate according to the corporate spirit and image • To apply health and safety measures in the daily activities • To organise his/her work programme in order to complete his/her assignment(s) • To maintain permanent vigilance, identify and report any anomaly

Table 4: Learning outcomes unit 3, warehouse operator, KSC descriptors

Analysis of the learning outcomes units weights

The following table (n°5) reports for each row:

- ID number of the interviewed expert/worker according to the table at the paragraph “List of involved experts)
- Country of the expert
- Weights for the LOs Unit included in the assessment (n°1, n°2 and n°3)
- Total, Sum of LOs Unit Weights

Moreover, are highlighted:

- In Red: In red: the minimum value (minimum weight) assigned to the Learning Outcomes Unit among all the assessments by the experts
- In Green: the maximum value (maximum weight) assigned to the Learning Outcomes Unit among all the assessments by the experts

The table n°6 summarizes data concerning the minimum and maximum value of the weights for each Learning Outcomes Unit and the median value.

As it is possible reading from table's n° 5 and n° 6 the range of assessment of weights is quite relevant and amounts to:

- LOs Unit 1: 33% points (range between minimum and maximum weight)
- LOs Unit 2: 43% points (range between minimum and maximum weight)
- LOs Unit 3: 35%points (range between minimum and maximum weight).

This clearly says how different can be the perception and the relevance assigned to each Learning Outcomes Unit by experts belonging to different kind of companies and countries.

Nevertheless, the median value (i.e. the number separating the higher half of a data sample, from the lower half) indicates that, a part from extreme values, the distribution of weights is quite homogenous. Indeed if we consider the Los Unit 1 and 2, the median value is more or less the average value between the higher and the lower. This is not completely true for the Learning Outcome Unit number 3, for which the median value is nearer the higher value, indicating that lower assessment might be probably consider as an outlier.

With reference to outliers, this analysis considers all the values identified by the involved experts, mainly for two reasons:

- Outlier's values are very few (or absent) in respect to the total number of weights considered in the sample.
- It seems not correct to exclude an assessment only because the assessment disagrees with those of other experts.

As the median value says, an indicative allocation of weights might be the following:

- LOs Unit 1: 30% of relevance
- LOs Unit 2: 40% of relevance
- LOs Unit 3: 30% of relevance

ID n°	Country	LOs Unit 1	LOs Unit 2	LOs Unit 3	Total
1	IT	30%	40%	30%	100%
2	IT	30%	40%	30%	100%
3	IT	35%	35%	30%	100%
4	IT	35%	35%	30%	100%
5	IT	40%	40%	20%	100%
6	FR	20%	45%	35%	100%
7	FR	20%	45%	35%	100%
8	FR	15%	50%	35%	100%
9	FR	22%	45%	33%	100%
10	FR	12%	63%	25%	100%
11	FR	20%	45%	35%	100%
12	BG	30%	30%	40%	100%
13	BG	25%	40%	35%	100%
14	BG	30%	30%	40%	100%
15	BG	30%	30%	40%	100%
16	BG	35%	20%	45%	100%
17-18	LU	25%	50%	25%	100%
20	LU	45%	45%	10%	100%
21	SK	24%	38%	38%	100%
22	SK	27%	40%	33%	100%
23	SK	28%	45%	27%	100%
24	SK	30%	50%	20%	100%
25	SK	40%	40%	20%	100%

Table 5: LOs Unit weights per expert

LOs' Unit n°	MIN VALUE	MAX VALUE	MEDIAN
LOs' Unit 1	12	45	30
LOs' Unit 2	20	63	40
LOs' Unit 3	10	45	33

Table 6: LOs Unit weights, range of values and median value

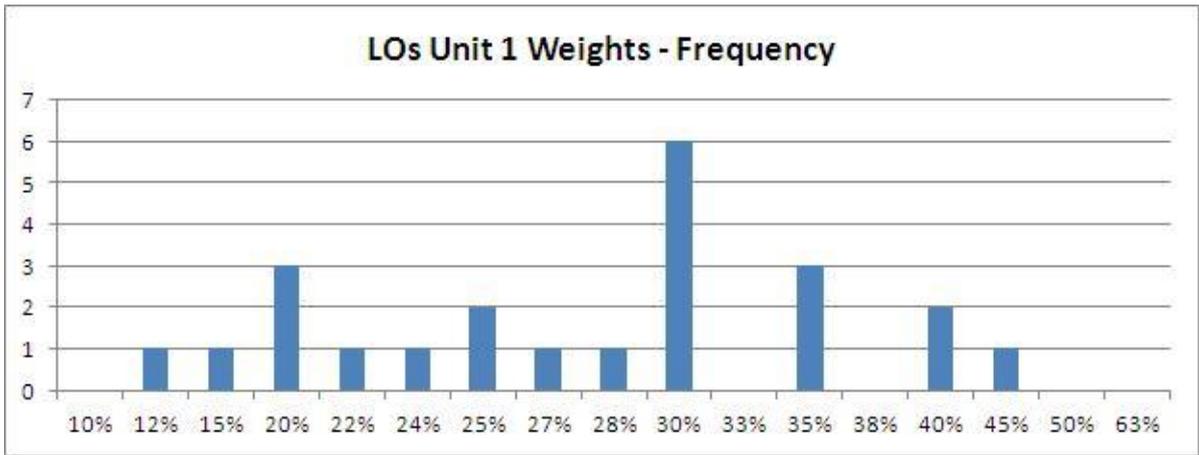


Table 7: LOs Unit 1 weights, frequency

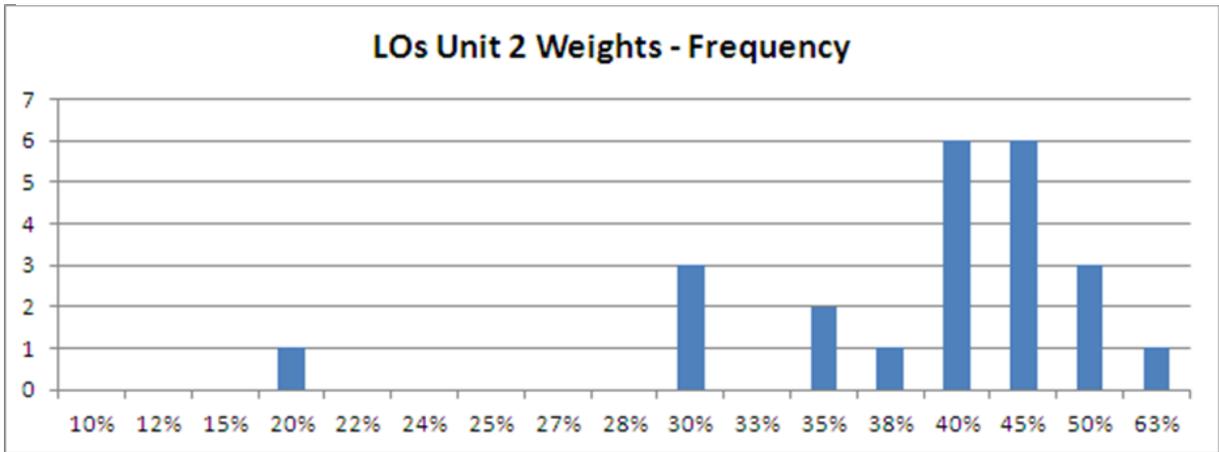


Table 8: LOs Unit 2 weights, frequency

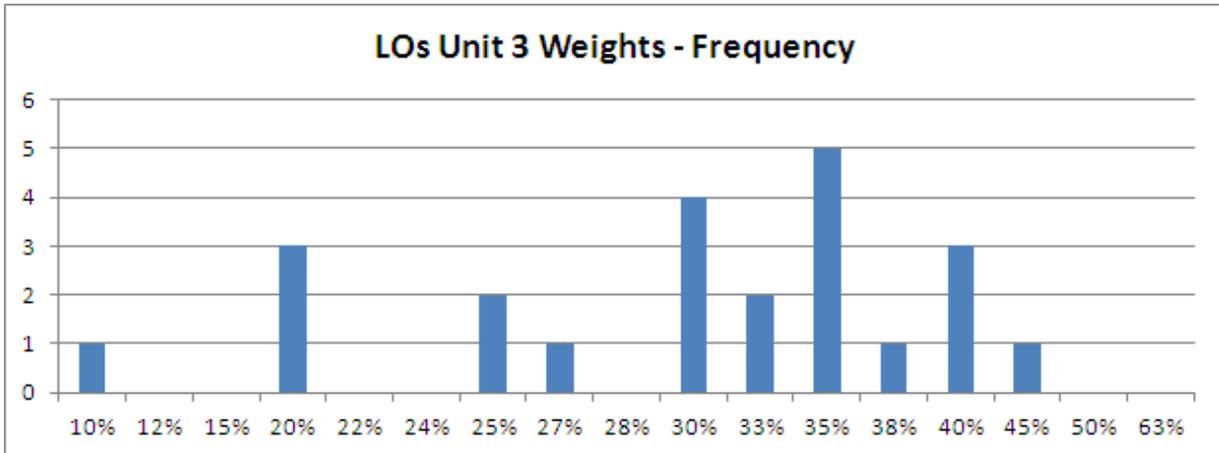


Table 9: LOs Unit 3 weights, frequency

For a final identification of the LOs Unit Weight it is not considered the median value, but the average value of the sample. In the next table the average value per country and for the European Partners is calculated and analysed in detail.

COUNTRY	LOs Unit 1	LOs Unit 2	LOs Unit 3	Total
ITALY	34%	38%	28%	100%
FRANCE	18%	49%	33%	100%
BULGARIA	30%	30%	40%	100%
LUXEMBOURG	35%	47%	18%	100%
SLOVAKIA	30%	42%	28%	100%
EU	29,4%	42,4%	29,2%	100%

Table 10: LOs Units weights – average value per country and average EU value

It's interesting to underline how the assessment of LOs Unit Weights is very different in some cases between a country and another. Looking in particular at the LOs Unit 1, the French assessment is clearly different (18%) from those of the other partner countries (from 30% to 35%), that is almost the double, for example for Luxembourgish experts.

Analysing each country in specific:

- ITALY: weights are similar to those of many partner countries (except for LOs Unit 2) and are coherent with the average EU weights.
- FRANCE: as mentioned, the LOs Unit 1 is clearly assessed in a different way from the other countries, this is partially valid also for the LOs Unit 2, while the LO's Unit 3 is coherent with other partner countries. Comparing with the average value the results are the same, LOs Units 1 and 2 have values quite different from the EU value, while the LOs Unit 3 is coherent. In few words, we can say that the percentage points not allocated to the LOs Unit 1 (in comparison the EU average value) are allocated to LOs Unit 2. For these reason, a French case Study with a specific allocation of weights and points might be prepared in addition to the EU allocation.
- BULGARIA: is more or less valid what has been said about France, even if for France the differences are more consistent. For Bulgaria, the LOs Unit 2 and 3 are not coherent with the average EU values. The LOs Unit 2 is assessed as less important (-10%) in comparison to the EU average relevance, on the contrary the LOs Unit 3 is assessed as more important (+10%) that at EU level. A Bulgarian Case Study regarding ECVET point allocation might be prepared in addition to the EU allocation.
- LUXEMBOURG: in this case each average weight for the country is quite different from the EU average value. Differences are not huge but relevant for all the Learning Outcomes. A specific ECVET point allocation for Luxembourg might be necessary, nevertheless it must be considered that the assessment in the Luxembourgish sample are only two, therefore a statistical analysis of the sample itself (without other

partner countries assessment) is not completely appropriate. EU average weights should be mainly considered.

- SLOVAKIA: as mentioned for Italy, Slovakian LOs Unit Weights are coherent, or better very similar, with the average values of the other partner countries and with the average EU values.

Considering and analysing the European average Weights of the Learning Outcomes Units emerges that the LOs Unit 1 and 3 have the same relevance that amounts to the 29%, while the most important unit is assessed as the Learning Outcomes Unit 2 (42%): storing and retrieving perishable goods. What is important to underline is that a part from Bulgaria, all the countries have assessed as most relevant the Learning Outcomes Unit 2 in comparison to the:

- LOs Unit 1 - take delivery of goods, transferring and repacking
- LOs Unit 3 - process the orders in order to ship them to the final customers.

In particular, as mentioned before some countries such France and Luxembourg have assessed the LOs Unit 2 even as more relevant that the average value at EU level (42%).

The next table helps to understand the differences between the average EU Weights and the countries' weights.

COUNTRY	LOs Unit 1	LOs Unit 2	LOs Unit 3	TOTAL
ITALY	+ 5%	- 4%	- 1%	100%
FRANCE	- 11%	+ 7%	+ 4%	100%
BULGARIA	+ 1%	- 12%	+ 11%	100%
LUXEMBOURG	+ 6%	+ 5%	- 11%	100%
SLOVAKIA	+ 1%	0	- 1%	100%
EU	29%	42%	29%	100%

Table 11: LOs Unit weights – range between the EU average value and the country average value

COUNTRY	LOs Unit 1	LOs Unit 2	LOs Unit 3	TOTAL
ITALY	2nd	1st	3rd	100%
FRANCE	3rd	1st	2nd	100%
BULGARIA	2nd	2nd	1st	100%
LUXEMBOURG	2nd	1st	3rd	100%
SLOVAKIA	2nd	1st	3rd	100%
EU	2nd	1st	3rd	100%

Table 12: LOs Unit weights – ranking of the LOs Unit

The final considerations on the analysis and the results of the ECVET point allocation can be read in the paragraph **Conclusions**.

Warehouse manager for pharmaceutical products

Job Description

Warehouse Manager (source: Central)

“The warehouse manager is in overall control of the distribution centre or warehouse. They have ultimate responsibility for ensuring the safe and efficient day to day running of the unit to help meet the organisation business plan. This process includes staff and financial management but also quality and environmental control.”

Warehouse Manager (field: pharmaceutical)

The warehouse manager in pharmaceutical is in overall control of the pharmaceutical distribution centre or warehouse. They have ultimate responsibility for ensuring the safe and efficient day to day running of the unit to help meet the organisation business plan. This process includes staff and financial management but also quality and environmental control. He is aware of pharmaceuticals products specificities in terms of sanitary, temperature requirements, care handling and hygiene. Knowing impacts of any default, he is a professional caring for the customer, the patient and the company.

Learning outcomes unit

- LOs Unit 1: define and set up organization patterns for logistics flows
- LOs Unit 2: manage the operation of logistics flows
- LOs Unit 3: contribute to the fulfilment of the firm’s logistics strategy through the implementation of appropriate logistics projects

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Scientific committee – list of involved experts/employees – Warehouse manager

ID n°	Country	Expert	Organization	Type/Sector	Position/Role
1	IT	Andrea Dalia	NAGEL	T&L Provider – Food Sector	Transport Technician
2	IT	Simone Bruschi	CEVA	T&L Provider – Pharma Sector	Warehouse Technician
3	IT	Carlo Merli	APM Terminals	MTO	CEO
4	IT	Luca Lanini	ITS Cesena	Training Provider (5 th EQF)	Director
5	IT	ITL Staff	ITL	Research Institute	Project Managers
6	FR	Philippe Gaumet	AFT	Training Provider	Sub-director (Pedagogical & Training Eng. Inst.)
7	FR	Martin Arthuis	Pharma Expert	Research	Pharmacist
8	FR	Grégory Mortreux	AFT	Training Provider	Training Expert
9	FR	Sylvain Molliere	AFTRAL	Training Provider	Responsible AFT schools
10	FR	Saou Ghadfa	AFT	Transport Sector	Regional delegate
11	BG	Prof. Ivan Petrov	Tranexpress Ltd	T&L Provider	Manager & Vice-Pres. FIATA
12	BG	Raiko Naydenov	Astellas	Company - Pharma Sector	Warehouse Manager

13	BG	Prof. Ilko Getov	Medical University	University	Dean Pharma Faculty
14	BG	Polixena Krastanova	BG Association for F.Forwarding, T. and L.	T&L Association	Director VET Center
15	BG	Venelin Sapunarov	BG Pharmaceutical Union, Sofia Reg. chamber,	Pharma Association	Chairperson
16	LU	Benoit Majerus	CACTUS SA	Distribution	Logistics Director
17	LU	DESSY Frederic*	PANALPINA	Transport / Pharma	RH Director
18	LU	HAIBA Issham*	PANALPINA	Transport / Pharma	Reg. Gateway LUX-FRA Air F. Ware. Sup. Lux.
19	SK	RDA Staff	RDA	Research Institute	Project Managers
20	SK	Alexandra Junaskova	State Institute of Vocational Education		
21	SK	Tomas Kobela	Asseco Central Europe		
22	SK	Erik Papp	SWOT spol. s r.o.		
23	SK	Lucia Filusova	Gebrüder Weiss		

Table 13: Scientific committee experts – warehouse manager assessment

Legend

* Joint Assessment

LO Unit 1: To define and to set up organization patterns for logistics flows			
LO's Unit 1 Weights	KNOWLEDGE	SKILLS	COMPETENCES
Average value per country Partners EU 35% Italy 40% France 35% Bulgaria 30% Luxembourg 35% Slovakia 37%	He / She has: <ul style="list-style-type: none"> • Good knowledge of current health and safety regulations • Good knowledge of labour law and related regulations • Advanced knowledge of pharmaceutical supply chain and associated actors (roles and profiles) • Advanced knowledge of pharmaceutical products specificities • Advanced knowledge of pharmaceutical handling and storage procedures • Advanced knowledge of material management • Advanced knowledge on specific regulations: GDP, DGR and • Good knowledge of HACCP (content and constraints) • Advanced knowledge of statistical techniques related to forecasts. • Good knowledge of transport chain and networks • Good knowledge of tools and methods used for planning and scheduling. • Good knowledge of digital management tools. • Good knowledge of budgetary procedures. 	He / She is able: <ul style="list-style-type: none"> • To analyse internal and/or external data • To make forecasts and simulations using tools and statistical methods. • To identify and to analyse technical and financial constraints and impacts of any logistics operation • To manage human resources and identify the related training needs • To set up and/or redefine organisational processes • To draw provisional logistics plan including in accordance to the operational plan. • To use ICT management tools • To analyse the logistics/transport income statement. • To draw up ratios for logistics activity. • To estimate the cost of the different technical options taking into account regulatory constraints in relation to logistics activity. • To be able to use IT financial control tools • To draw up simulation scenarios for budget estimations. • To work out the break-even point of logistics activity • To draw up and to implement measurement tools to follow-up productivity gains generated by logistics solutions. • To create summary documents that can be used for each link of the logistics chain. 	He / She is competent : <ul style="list-style-type: none"> • To organise and to rationalise the planning of logistics capacity on the basis of the provisional volume forecast of logistics activity • To operate in the context of pharma distribution • To coordinate with other actors and departments ensuring health, safety and labour regulations' compliance • To organise his/her work as well as that of his/her team according to time management efficient procedures • To communicate efficiently to the different teams about the provisional budget and adapt it according to any amendment proposed. • To operate in the context of pharma distribution • To develop guidelines and to coordinate with other actors and departments • To resolve efficiently practical difficulties occurring with performance indicators (maintenance, up-dating, deadlines, etc.) by drawing up specific and pertinent procedures in relation to logistics activity.

	<ul style="list-style-type: none"> • Good knowledge of costs of the various activities or services provided by the company or within the sector (pharma and transport and logistics sector) • Good knowledge of techniques for improving logistics performance. • Knowledge of IT financial control tools • Knowledge of key performance indicators (KPI) • Knowledge of internal rules for financial control and the cost structure • Knowledge on methodology used to create accurate performance indicators • Knowledge of pharmaceutical environments: actors and sectorial specificities • Knowledge of distribution channels advantage and constraints • Knowledge of the legislations related to the specific product/activities • Knowledge of track and tracing tools 	<ul style="list-style-type: none"> • To determine key criteria, both qualitative and quantitative, to measure the performance of logistics solutions implemented. • To define KPI to be used by the different teams involved • To select indicators adapted to specific organisational, functional or operational logistics needs. • To integrate control data coming from other functions within the firm, as well as that coming from external sources. • To build a management system which makes best use of the indicators implemented. • To create a follow-up system for performance in relation to internal and/or external constraints. • To use computer software in order to create performance indicators for financial control • To analyse current processes • To integrate new component in running procedures • To design and to present a business enlargement plan • To integrate branch specificities into the current logistics organisations to be compliant with the pharmaceutical specificities (legislation and products), providers, customers and end-users requirements 	<ul style="list-style-type: none"> • To link operational indicators to strategic ones in order to draw the most relevant procedures. • To develop guidelines and coordinate with other actors and departments • To communicate with stakeholders and/or decisions makers about new investments needed • To develop guidelines and/or coordinate with other actors and department
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Table 14: Learning outcomes unit 1, warehouse manager, KSC descriptors

LO Unit 2: To manage the operation of logistics flows			
LO's Unit 2 Weights	KNOWLEDGE	SKILLS	COMPETENCES
Average value per country Partners EU 35% Italy 30% France 33% Bulgaria 37% Luxembourg 47% Slovakia 37%	He / She has: <ul style="list-style-type: none"> • Good knowledge on health and safety regulations. • Good knowledge on labour law and in particular work contracts. • Good knowledge of communication techniques. • Advanced knowledge of planning tools and techniques. • Knowledge of technical and regulatory constraints regarding the use of industrial handling equipment. • Advanced knowledge of pharmaceutical distribution: sector and actors • Advanced knowledge of pharmaceutical supply chain and associated actors (roles and profiles) • Good knowledge on tools and methods of the improvement of logistics processes. • Good knowledge on reporting techniques. • Good knowledge of the legal responsibility of any kind of mishandlings or procedure default 	He / She is able: <ul style="list-style-type: none"> • To apply and oversee application of quality procedures and health and safety regulations. • To determine and report the type and quantity of equipment needed for handling. • To plan human resource requirements in response to fluctuations in logistics activity in terms of numbers, qualifications and deadlines. • To apply, oversee application and take into account the clauses of the work contract (hours of work, management of time off, recruitment, etc.) • To conduct a recruitment interview. • To create and update performance indicators of logistics activity. • To update logistics activity schedules. • To define performance criteria in relation to the level of qualification of each member of staff. • To apply labour law and contract rules concerning the recruitment of personnel, the nature and extent of the work contract and the departures. • To check that existing competences correspond to the short and medium term needs of the logistics activity. • To propose training plans to staff and to driving personnel continuous development. 	He / She is competent: <ul style="list-style-type: none"> • To adjust logistics capacity in relation to the fluctuations in logistics activity • To develop guidelines and coordinate with other actors and departments • To manage efficiently logistics teams and adapt the style of management to the context of logistics activities • To develop guidelines and coordinate with other actors and departments • To evaluate new solutions to improve the logistic flows • To detect and to analyse malfunctions in order to propose straightforward practical solutions, within the framework of constant improvement of the logistics processes. • To manage efficiently the warehouse transit and storage activities in compliance with the product

		<ul style="list-style-type: none"> • To use the performance indicators to measure the suitability and efficiency of the proposed logistics solutions. • To evaluate the level of performance against objectives following the introduction of new logistics processes. • To monitor the main cost centres and compare them to standard professional ratios. • To apply quality control to the output and quality of logistics processes • To measure the efficiency of logistics processes in relation to best sectorial practices. • To spot possible synergies between the various actors of the supply chain. • To set up the resources needed to assure the steering of the progress plan. • To set new operational objectives and integrate them into a process of permanent improvement within the firm. • To monitor and to update the performance indicators of logistics activity and, with the internal and external interlocutors of the supply chain, decide on the readjustments to be made. • To improve the different stages of logistics processes (sales forecasts, operational management of physical flows, order control and warehouse management). • To organise and implement all tracking and tracing procedures • To decide for returning or recalling of mishandled products 	<p>specificities and in ad equation with the company's strategy, the customers requirement's level</p> <ul style="list-style-type: none"> • To implement accurate controlling activities to be able to react suitably and correct occurred dysfunctions
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Table 15: Learning outcomes unit 2, warehouse manager, KSC descriptors

LO Unit 3: To contribute to the fulfilment of the firm's logistics strategy through the implementation of appropriate logistics projects			
LO's Unit 3 Weights	KNOWLEDGE	SKILLS	COMPETENCES
Average value per country Partners EU 28% Italy 30% France 31% Bulgaria 33% Luxembourg 18% Slovakia 26%	He / She has: <ul style="list-style-type: none"> Advanced knowledge of pharmaceutical supply chain and associated actors (roles and profiles) Advanced knowledge of pharmaceutical products specificities and handling and storage procedures and failures Advanced knowledge of firm strategy and its business relations Good knowledge of tools for overall performance improvement in the global supply chain. Good knowledge in IT systems specifically applied to logistics (ERP, WMS, TMS, etc.) Knowledge on technological, technical, regulatory and organisational innovations that might impact the processes of the supply chain. Knowledge on various financial analysis and strategies Knowledge of principal indicators of 	He / She is able: <ul style="list-style-type: none"> To identify and analyse the logistics needs of internal and external actors in the supply chain and divide them according to their requirements. To collect and analyse information from functional departments and/or operational units. To classify logistics needs so as to be able to prioritise the choices and implementation of logistics projects. To design a project within the company To gather required actors and staff to design and implement the project To integrate new technology into the firm's logistics strategy, in particular in terms of communication and IT systems. To run a logistics processes audit in order to draw up an inventory and thereby define the course of action for improvement. To determine and to analyse the added value of the project for each link of the supply chain. To estimate the logistics project cost taking into account all the logistics processes. 	He / She is competent : <ul style="list-style-type: none"> To select and assess the feasibility of logistics projects according to the global strategy of the firm To develop guidelines and coordinate with other actors and departments including English Language To provide arguments to support the implementation of a logistics project in response to logistics needs of the company To model the financial strategy of the logistics project in relation to the firm's general policy To negotiate properly (and in accordance with the company strategy) the technical and economic and regulatory aspects of the contract linked to the implementation of the logistics

	<p>investment choices (net cash flow, net present value, investment payback period, profitability study, internal rate of return).</p> <ul style="list-style-type: none"> • Knowledge of tools and methods for financial analysis • Advanced knowledge on commercial contracts • Good knowledge of negotiation techniques • Good knowledge of call of tenders procedures • Good knowledge of conflict resolution techniques 	<ul style="list-style-type: none"> • To determine the financial plan of the project whilst integrating financial constraints. • To implement risk analysis procedures and propose corrective action. • To carry out a feasibility study regarding the technical, organisational and economic aspects of the logistics project • To draw up a document, listing the technical, financial and contractual specifications • To draw up a call for tender by identifying the quality, service and cost constraints • To select the best value for money option in a call of tender procedure • To identify the form of cooperation to be set up through contracts • To collect and analyse information which is useful to the negotiation process. • To draw up logistics specifications to obtain a quality/price ratio that is sustainable and competitive. • To apply the relevant terms of contracts in case of dissatisfaction or non-proper execution of the service. 	<p>project</p>
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Table 16: Learning outcomes unit 3, warehouse manager, KSC descriptors

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Analysis of the learning outcomes units weights

The following table (n°17) reports for each row:

- ID number of the interviewed expert/worker according to the table at the paragraph “List of involved experts)
- Country of the expert
- Weights for the LOs Unit included in the assessment (n°1, n°2 and n°3)
- Total, Sum of LOs Unit Weights

Moreover, are highlighted:

- In Red: In red: the minimum value (minimum weight) assigned to the Learning Outcomes Unit among all the assessments by the experts
- In Green: the maximum value (maximum weight) assigned to the Learning Outcomes Unit among all the assessments by the experts

The table n°18 summarize data concerning the minimum and maximum value of the weights for each Learning Outcomes Unit and the median value.

As it is possible reading from tables n° 17 and n° 18 the range of assessment of weights is relevant and amounts to:

- LOs Unit 1: 25% points (range between minimum and maximum weight)
- LOs Unit 2: 25% points (range between minimum and maximum weight)
- LOs Unit 3: 30%points (range between minimum and maximum weight).

This clearly says how different can be the perception and the relevance assigned to each Learning Outcomes Unit by experts belonging to different kind of companies and countries.

Nevertheless, the median value (i.e. the number separating the higher half of a data sample, from the lower half) indicates that, a part from extreme values, the distribution of weights is quite homogenous. Indeed if we consider the Los Unit 1 and 2, the median value is more or less the average value between the higher and the lower, even if closer to the lower one. This is not completely true for the Learning Outcome Unit number 3, for which the median value is closer the higher value, indicating that lower assessment might be probably consider as an outlier.

With reference to outliers, this analysis considers all the values identified by the involved experts, mainly for two reasons:

- Outliers value are very few (or absent) in respect to the total number of weights considered in the sample
- It seems not correct to exclude an assessment only because the assessment disagrees with those of other experts.

As the median value says, an indicative allocation of weights might be the following:

- LOs Unit 1: 35% of relevance
- LOs Unit 2: 35% of relevance
- LOs Unit 3: 30% of relevance

ID n°	Country	LOs Unit 1	LOs Unit 2	LOs Unit 3	Total
1	IT	30%	30%	40%	100%
2	IT	45%	25%	30%	100%
3	IT	40%	30%	30%	100%
4	IT	50%	30%	20%	100%
5	IT	35%	35%	30%	100%
6	FR	37%	32%	31%	100%
7	FR	38%	32%	30%	100%
8	FR	30%	40%	30%	100%
9	FR	37%	32%	31%	100%
10	FR	35%	30%	35%	100%
11	BG	32%	40%	28%	100%
12	BG	25%	35%	40%	100%
13	BG	30%	30%	40%	100%
14	BG	30%	50%	20%	100%
15	BG	35%	30%	35%	100%
16	LU	25%	50%	25%	100%
17-18	LU	45%	45%	10%	100%
19	SK	40%	40%	20%	100%
20	SK	38%	30%	32%	100%
21	SK	30%	42%	28%	100%
22	SK	40%	40%	20%	100%
23	SK	35%	35%	30%	100%

Table 17: LOs Unit weights per expert

LOs' Unit n°	MIN VALUE	MAX VALUE	MEDIAN
LOs' Unit 1	25	50	35
LOs' Unit 2	25	50	34
LOs' Unit 3	10	40	30

Table 18: LOs Unit weights – range of values and median value

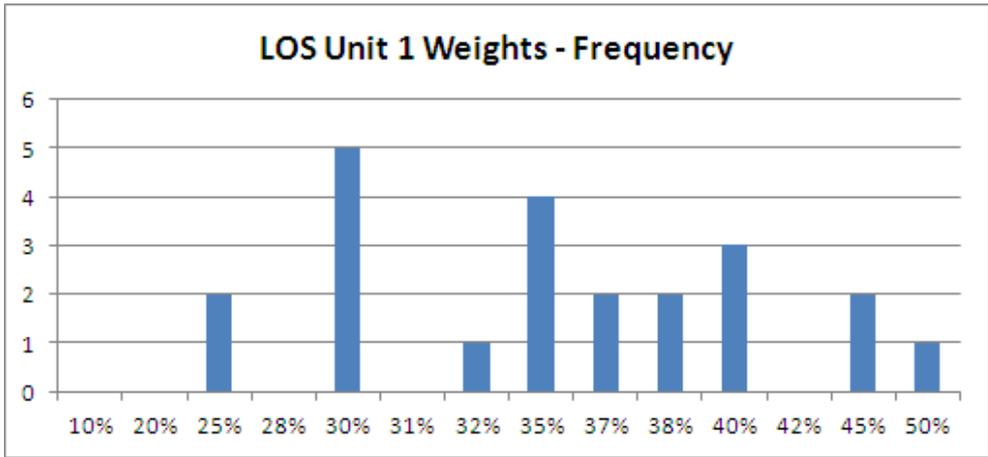


Table 19: LOs Unit 1 weights, frequency

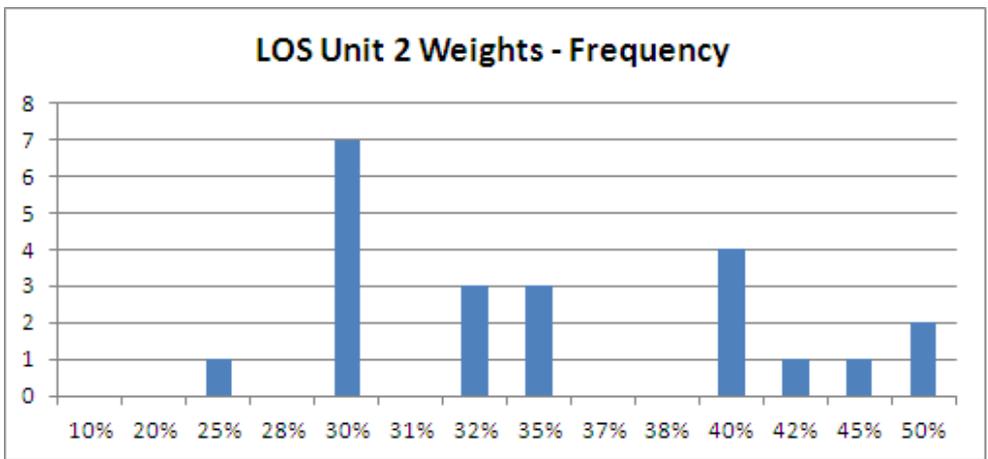


Table 20: LOs Unit 2 weights, frequency

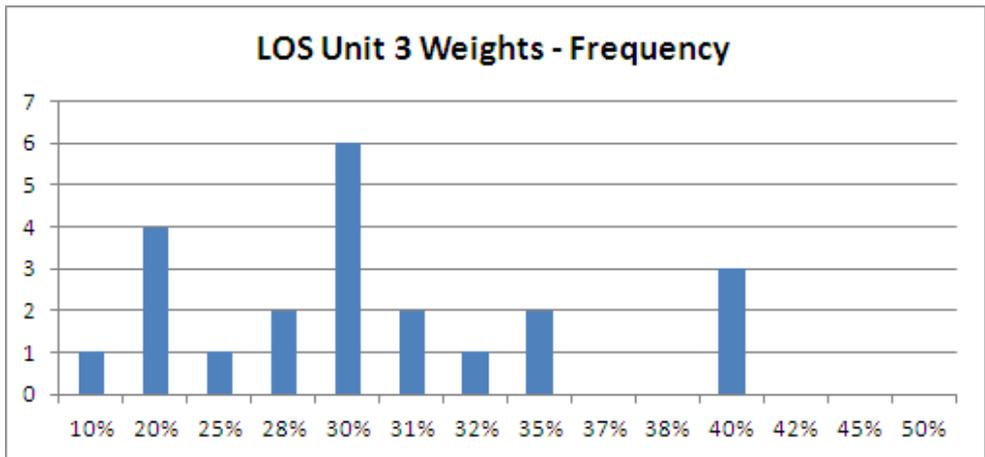


Table 21: LOs Unit 3 weights, frequency

For a final identification of the LOs Unit Weight it is not considered the median value, but the average value of the sample. In the next paragraph the average value per country and for the European Partners is calculated and analysed in detail.

COUNTRY	LOs Unit 1	LOs Unit 2	LOs Unit 3	Total
IT	40%	30%	30%	100%
FR	35%	33%	31%	100%
BG	30%	37%	33%	100%
LU	35%	47,5%	17,5%	100%
SK	36,6%	37,4%	26%	100%
EU	35%	37%	28%	100%

Table 22: LOs Unit weights – average value per country and average EU value

Among the different partner countries, the assessment of LOs Unit Weights is quite homogenous with reference to the Unit 2, indeed the range of weights is limited to the 10%. Greater differences can be instead underline for what concern in particular the LOs Unit 2 (18%) and the LOs Unit 3 (15%), but this is true only with reference to the Luxembourgish assessment. Therefore, considering also the small sample of observations, for the Warehouse Manager (field: Pharmaceutical Products) it can be said that the perception of the relevance of activity is quite similar or equal in the different partner countries. The average EU value represents the overall situation of the partner countries and no specific national case study is necessary.

Analysing each country in specific:

- **ITALY:** weights are quite similar to the average weights at European level. The gap between the Italian weight and the average one is extremely limited for the LOs Unit 3 (2%), while is greater (but not so relevant) for the LOs Unit 1 (5%) and 2 (7%).
- **FRANCE:** the average value of weights assigned by French experts is strictly in line with that of the other partner countries and very similar to average European value.
- **BULGARIA:** is more or less valid what has been said about Italy. Small differences emerge with reference to the unit 1 and 3, but they're limited in both cases to the 5%.
- **LUXEMBOURG:** in this case the average weight for the country is quite different from the EU average value, except for the LOs Unit 1 for which the values are equals. For LOs Unit 2, for example, a greater value (+10,5%) is allocated by Luxembourgish experts, while for LOs Unit 3 the value is lower by the 10,5%. In few words, there's a shift of "relevance" from the LOs Unit 3 to the LOs Unit 2. Nevertheless, a specific ECVET point allocation for Luxembourg is not necessary, indeed it must be considered that the assessments in the Luxembourgish sample are only two, therefore a statistical analysis of the sample itself (without other partner countries assessments) is not completely appropriate. EU average weights should be mainly considered.

- SLOVAKIA: as mentioned for Italy, France and Bulgaria, the Slovakian LOs Unit Weights are coherent, or better very similar, with the average values of the other partner countries and with the average EU values.

Considering and analysing the European average Weights of the Learning Outcomes Units emerges that the LOs Unit 1 and 2 are more relevant for the qualification. In particular the LOs Unit 2 “manage the operation of logistics flows” is assessed as the most important unit (37%), even if also the LOs Unit 1 “defines and set up organization patterns for logistics flows” is important (35%), more or less as the Unit 1. It is worthy to say that basically there is not a great difference between the Unit 1 and 2 and the Unit 3, contribute to the fulfilment of the firm’s logistics strategy through the implementation of appropriate logistics projects.

Despite the average national weights are coherent with the average EU value and homogeneous among the partner countries, it must be said that there are some differences in the specific ranking of the LOs Units. The table xx helps to understand these differences, and as it can be seen the more relevant difference is regarding the Unit 1 in the French and Italian case studies and the unit 3 for the Bulgarian case study. For French and Italian experts the more relevant unit is define and set up organization patterns for logistics flows, but while for France the range between Unit 1 and 2 is anyway limited, for Italy the range between the units is quite important (10%). Therefore, an ECVET point allocation specific for Italy and additional to European one will be elaborated. For French and for Bulgaria this not seems appropriate (national ECVET point allocation) because even if the ranking is different, the weights are anyway very similar and small difference between weights are not translated in great differences between ECVET points. Results would be practically the same, from the point of view of Training and Education.

COUNTRY	LOs Unit 1	LOs Unit 2	LOs Unit 3	Total
ITALY	+ 5%	- 7%	+ 2%	100%
FRANCE	0	- 4%	+ 3%	100%
BULGARIA	- 5%	0	+ 5%	100%
LUXEMBOURG	0	+ 10,5%	- 10,5%	100%
SK	+ 2%	0	- 2%	100%
EU	35%	37%	28%	100%

Table 23: LOs Unit weights – range between the average EU weights and countries’ weights

COUNTRY	LOs Unit 1	LOs Unit 2	LOs Unit 3	Total
ITALY	1st	2nd	2nd	100%
FRANCE	1st	2nd	3rd	100%
BULGARIA	3rd	1st	2nd	100%
LUXEMBOURG	2nd	1st	3rd	100%
SK	2nd	1st	3rd	100%
EU	2nd	1st	3rd	100%

Table 24: LOs Unit weights – ranking of LOs Unit per each partner country

The conclusions of the analysis as well as the ECVET point allocation results are included in the next paragraph.

Conclusions

Warehouse Operator for Perishable Goods

Even if different in some cases, the average weights at EU level are well balanced to those of the partner countries, in almost all the countries:

- LOs Unit 1 “take delivery of goods, transferring and repacking” is the second Unit (among the 3) in terms of relevance, and its relevance is very similar to that of the LOs Unit 3.
- LOs Unit 2 “storing and retrieving perishable goods” is the most relevant Learning Outcomes Unit for the qualification.
- LOs Unit 3: “process the orders in order to ship them to the final customers” is assessed as the third unit in terms of importance by most of the national experts, nevertheless its relevance is very similar to the LOs Unit1.

From a technical point of view, the operations related to Storing and Retrieving are assessed as more relevant and difficult for the warehouse operator. The training should be then focused mainly to these kinds of activities and to all the linked operations both in terms of documents to be managed and understood, both in terms of ICT tools that need to be utilized by the operator. The handling of goods (transfer) and the use and understanding of documents and orders even if relevant are not the main activity for the warehouse operator, or at least, less time should be dedicated (in a training activity) to the teaching of these competencies. The weighting criteria consider not only the relevance of the operations for the qualification, but also the efforts necessary to acquire the competencies.

EQF level 3 qualifications are usually included in the first level of the vocational training systems of EU Countries and the training is completed also by subjects linked to the Traditional Education System (mandatory education). For this reason the course is intended as an initial VET course composed by 1500 hours, plus 1500 hours for traditional subjects, for a total of 3000 hours (3 years). As alternative, the course might be intended as a specific training for unemployed or employed in another sector. In this case the training duration would be around 250 hours.

ECVET point allocation (European level)

LOs Unit	Learning Outcomes Unit Title	Average Weight	ECVET p. Option A	ECVET p. Option B
1	To take delivery of goods, transferring and repacking	29%	26	4
2	To store and retrieve perishable goods	29%	26	4
3	To process the orders in order to ship them to the final customers	42%	38	7
		100%	90	15

Table 25: 25 LOs Unit – ECVET points (EU case study)

N.B. According to the ECVET Definition, one year of training corresponds to 60 ECVET points.

With reference to Bulgaria and French, that are characterized by a different allocation of LOs Unit weights the ECVET points are the following:

FRENCH CASE STUDY

LOs Unit	Learning Outcomes Unit Title	Average Weight	ECVET p. Option A	ECVET p. Option B
1	To take delivery of goods, transferring and repacking	18%	26	4
2	To store and retrieve perishable goods	49%	26	4
3	To process the orders in order to ship them to the final customers	33%	38	7
		100%	90	15

Table 26: LOs Unit – ECVET points (French case study)

BULGARIAN CASE STUDY

LOs Unit	Learning Outcomes Unit Title	Average Weight	ECVET p. Option A	ECVET p. Option B
1	To take delivery of goods, transferring and repacking	30%	27	4,5
2	To store and retrieve perishable goods	30%	27	4,5
3	To process the orders in order to ship them to the final customers	40%	36	6
		100%	90	15

Table 27: LOs Unit – ECVET points (Bulgarian case study)

Warehouse Manager for Pharmaceutical Products

In conclusion, at European level:

- The LOs Unit 1 “defines and set up organization patterns for logistics flows” and the LOs Unit 2 “manage the operation of logistics flows” are the more relevant units (among the 3) for the qualification of the Warehouse Manager for Pharmaceutical Sector.
- LOs Unit 3: “contribute to the fulfilment of the firm’s logistics strategy through the implementation of appropriate logistics projects” is assessed as less important by most of the national experts, nevertheless its relevance is not very lower than the other two LOs Units.

From a logistic point of view emerges that the two main operations featuring the job profiles linked to the qualification are clearly the set up and the management of the logistics flows and network and it’s clearly understandable why. Because essential for the manager is the organization and management of the warehouse and of all the flows (information, tools, equipment, staff, goods and documents) and only on a second level the job is characterized by strategic objectives. This doesn’t mean that the contribution to the implementation of firm’s strategies is not relevant, indeed the weight for this LOs Unit is not so lower than the others, but means that the LOs Unit 1 are the essential and sufficient condition for performing the job correctly and successfully, while the LOs Unit 3 is a necessary condition but not sufficient for the profession. It must be said that, in general, a lower assessment of the LOs Unit was expected, as usually many companies focus more on daily and concrete activities than on strategic actions and skills. With reference to Bulgaria, is interesting to underline how the Learning Outcomes related to strategy’s implementation (unit 3) is even more relevant than organization of logistics flows (unit 1).

EQF level 5 qualifications are generally linked to skilled and medium skilled professions and are generally achievable after 18-19 years old and a first vocational diploma of the 4th level. Two options can be considered for the definition of the training duration and therefore of the ECVET points for each LOs Unit:

- The course can address the needs of young trainees that got the 4th level diploma and wish to increase their skills in the sector, or to workers of another sector. In this case the suggested training duration is 1500 hours (1 year and half)
- As alternative, the course can be intended as a specific training for unemployed or employed in the same sector but in different positions. In this case the training duration would be around 500 hours.

ECVET point allocation (European level)

LOs Unit	Learning Outcomes Unit Title	Average Weight	ECVET p. Option A	ECVET p. Option B
1	To define and set up organization patterns for logistics flows	35%	32	10,5
2	To manage the operation of logistics flows	37%	33	11,1
3	To contribute to the fulfilment of the firm's logistics strategy through the implementation of appropriate logistics projects	28%	25	8,4
		100%	90	30

Table 28: LOs Unit, ECVET points (EU case study)

N.B. According to the ECVET Definition, one year of training corresponds to 60 ECVET points.

With reference to Bulgaria and Italy, that are characterized by a lightly different allocation of LOs Unit weights the ECVET points are the following:

ITALIAN CASE STUDY

LOs Unit	Learning Outcomes Unit Title	Average Weight	ECVET p. Option A	ECVET p. Option B
1	To define and set up organization patterns for logistics flows	40%	36	12
2	To manage the operation of logistics flows	30%	27	9
3	To contribute to the fulfilment of the firm's logistics strategy through the implementation of appropriate logistics projects	30%	27	9
		100%	90	30

Table 29: LOs Unit, ECVET points (Italian case study)

BULGARIAN CASE STUDY

LOs Unit	Learning Outcomes Unit Title	Average Weight	ECVET p. Option A	ECVET p. Option B
1	To define and set up organization patterns for logistics flows	30%	27	9
2	To manage the operation of logistics flows	37%	33,3	11,1
3	To contribute to the fulfilment of the firm's logistics strategy through the implementation of appropriate logistics projects	33%	32,4	9,9
		100%	90	30

Table 30: LOs Unit, ECVET points (Bulgarian case study)

ANNEX

Establishing a Scientific Committee

Considering, all the project activities, the Scientific Council represent a group of experts/workers (training, logistics and transport) belonging to different operational fields

- Companies (L&T, managing PHARMA or PERISHABLE goods, PHARMA and FOOD industries)
- Universities/ Schools (with vocational mission, or L&T courses)
- Training Providers (for L&T, logistics for PHARMA and FOOD)
- Public bodies (policy makers for TRAINING, L&T)
- Research/Consulting sector (TRAINING, L&T)

Within each partner country, a national Scientific Committee has to be established.

Consultation of the Scientific Committee

According to the different products/results that have to be evaluated, some experts will be selected and consulted. ITL suggest establishing a Scientific Committee composed by a maximum 10 experts (called “SC group”) and 5 experts for each product evaluation (called “specific SC”).

Depending on the kind of product that has to be evaluated, 5 different experts (if available within the whole SC group) might be identified in each evaluation process, for example:

- For assessment of LOs, should be preferred experts belonging to logistics and transport companies (but not only!! For example: 3 Company employees, 2 trainers)
- For the assessment of weights of each LO unit a mix of company experts (L&T), training providers
- For the assessment of modules should be preferred training providers, trainers, professors (but not only)

In this way for each evaluation of project products, a specific group of experts will be selected.

N.B. It is not mandatory to follow these indications; each partner is free to define the group of experts. These guidelines are “general” suggestions for the development of a good evaluation, but each partner has to consider its national context, the availability for collaboration of experts, the number and the type of contacts.

In order to compare and analyse the different points of view of experts composing the SC at national level:

- ITL has prepared template for collecting information on training programs at national level.
- Partners have to research information and provide national feedbacks
- ITL collects all the national feedbacks and prepares a final proposal of the duration of the training programs (and of the total ECVET points) for the 2 selected qualifications

An aspect that is very important is to guarantee that the interviewed experts are aware of all the main project and product aspect, in order to perform a detailed and appropriate

evaluation. The following bullets are a CHECK LIST of the information that should be provided to each expert:

- Project general info and aims
- Short description of the considered qualification
- Detailed description of the Learning outcomes unit
- Criteria for weighting Learning outcomes unit

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