



Erasmus+



Logistics  
Language  
Open  
Training

## 1. LOGISTICS LANGUAGE OPEN TRAINING PROJECT

Michał Adamczak\*, Roman Domański\*\* and Piotr Cyplik\*\*\*

- \* Chair of Logistics Systems, Poznan School of Logistics, Poznan, 61-755, Poland,  
email: [michal.adamczak@wsl.com.pl](mailto:michal.adamczak@wsl.com.pl)
- \*\* Chair of Logistics Systems, Poznan School of Logistics, Poznan, 61-755, Poland,  
email: [roman.domanski@wsl.com.pl](mailto:roman.domanski@wsl.com.pl)
- \*\*\* Chair of Logistics Systems, Poznan School of Logistics, Poznan, 61-755, Poland,  
email: [piotr.cyplik@wsl.com.pl](mailto:piotr.cyplik@wsl.com.pl)

---

**Abstract:** The aim of the paper is to present basic information about the Logistics Language Open Training (LLOT) project, starting from the concept of the project by building a consortium, submitting the application form, implementing the project, developing the intellectual outputs to disseminating its results.

The idea of the project was created as a result of observing the needs of employers from the logistics branch. They pointed to the need to improve language skills not only among their own employees but also among candidates for work. Execution of logistic processes requires a good knowledge of foreign languages: colloquial language and industry language too.

Responding to the educational needs of the logistics branch, the LLOT project developed language courses dedicated to the logistics language. Courses for language, English, German, Italian and Polish were developed. The Content Language Integrated Learning (CLIL) method was used to learn the logistics language. Both language courses based on industry vocabulary and specialized logistic courses.

**Keywords:** *EU projects, CLIL, gamification e-learning*

---

## 1. PROJECT BACKGROUND

Logistics is a sector of the economy which plays a strongly integrating role as far as partners in a supply chain are concerned. Additionally, the globalisation of the world economy and the concentration of supply and demand in two different parts of the world make the agency of logisticians in trade necessary. The knowledge of foreign languages in this sector is becoming default and people seeking employment in this sector must be prepared for that.

In Polish market this is confirmed by the results of the research conducted by the WSL (in 18 large enterprises), aimed at identifying the level of knowledge of foreign languages among the employees of global logistic companies. In all of them, the knowledge of a foreign language is among the recruitment criteria. In 83% of analysed enterprises the importance of this criterion depends on the position for which a given candidate applies. It is worth emphasizing that only in about 10% of companies it is possible to be employed as a manager or at a higher position without the knowledge of a foreign language. At the same time, over 50% of the surveyed entrepreneurs notice significant lack of foreign language skills among candidates. More extended research conducted by Millward Brown in the third quarter of 2014 in Polish market concerning foreign language requirements of employers from candidates confirms the results of the aforementioned study. In accordance to this broader research, 58% of enterprises require good language skills from candidates for managerial positions, and nearly 48% require the same from candidates for specialist positions. The report, entitled *Europeans and Languages*, reveals that 66% of the British population have absolutely no knowledge of any language other than English. Applications to study foreign languages at universities in the UK have fallen dramatically in recent years in favour of other subjects<sup>1</sup>. In UK it is projected that by 2020 there will be almost 180 thousand new employees required in the logistics industry. The logistics sector makes up eight percent of the UK workforce<sup>2</sup>.

As evidenced by the National logistics Plan 2012-2020, Ministero delle Infrastrutture e dei Trasporti, the theme of growth is central to a country like Italy that, due to the cost of debt and higher costs in logistics, energy, the bureaucracy and the decreased productivity of the last 10 years, according to Istat, lost, compared to France and Germany 8 points of GDP (over 120 billion EUR). The poor dissemination of "logistic culture" and lack of professional resources are some of the phenomena that generate major criticalities and cause less

---

<sup>1</sup> <http://www.theguardian.com/uk/2001/feb/20/education.educationnews>

<sup>2</sup> <http://www.statista.com>

competitiveness of Italian companies, both from the point of view of "demand of logistics and supply.

An important conclusion from the analysis of the results of all studies is that the knowledge of a foreign language is in logistic enterprises required to a greater extent more than among enterprises in general.

The e-learning is emerging, companies can save up to 70% by replacing traditional training with e-learning<sup>3</sup>. It is the fastest growing market in education. An increasing number of individuals, corporations, and institutions are turning to e-learning as they recognize its effectiveness and convenience. On the other hand, companies who do offer e-learning and on-the-job training generate about 26% more revenue per employee. E-learning is a great tool for the dissemination of educational products. This is consistent with the Communication on Rethinking Education, the EC announced a new initiative on "Opening-up Education". It acknowledges that openness has the potential to widen access to education and to improve, amongst others, access, cost-efficiency and quality of teaching and learning.

## **2. PROJECT AIMS AND PRIORITIES**

The project aims at developing basic and transversal skills using innovative methods. It aims at developing language and logistics skills and competences using gamified e-learning tool. The developed e-learning language courses take into account four languages: English, German, Italian, Polish. It is aimed at professionals working in logistics, being trained in logistics and transport area, adults who want to increase their language competence. The project develops transversal skills using innovative methods such as high quality e-learning supported by gamification. The innovation of the project lies in the gamification of the learning process which means using game elements and game mechanics in non-game environment such as learning (e-learning). The materials of the project, project outputs- e-learning toolkits are available for free OER - project fosters the access to VET. Due to the format (e-learning) the toolkit is available for each employee any time in any place. The project contributes also to Europe 2020 with objectives on education, innovation and employment, and ET2020 with the objective to make lifelong learning a reality and strive for reaching the 15% of adults participating in lifelong learning.

---

<sup>3</sup>[http://www.mexder.com.mx/wb3/wb/MEX/MEX\\_Repositorio/\\_vtp/MEX/21b6\\_avisos/\\_rid/21/\\_mto/3/IOMA2002.pdf](http://www.mexder.com.mx/wb3/wb/MEX/MEX_Repositorio/_vtp/MEX/21b6_avisos/_rid/21/_mto/3/IOMA2002.pdf)

The project detailed aim is to teach people vocational languages for logistics sector through gamified e-learning tool and to develop new competences in logistics in foreign language (English, German, Italian, Polish). The results of the project is gathered on bespoke e-learning platform - developed for the project purposes. The project is based on CLIL approach - it teaches people languages integrated with logistics content. Apart from language courses new logistics content was elaborated.

It is aimed at professionals working in logistics and transport area, who want to increase their language competence. The project try to improve the level of key competences and skills, the teaching and learning of languages and promote the EU's linguistic diversity. The development of this project contributes to the improvement of competences relevant to the specific labour market by those new competences the project contributes to the increase opportunities for learning and work mobilities.

### **3. PROJECT CONSORTIUM**

Project consortium consist of five institutions (two from Poland, one from Germany, one from Italy, one from United Kingdom). Project's partners has a different experiences in teaching logistics and foreign languages. WSL was responsible for developing logistics courses and logistics vocabulary for language course. Other Partners (CIS, GLOBALNET, speakeasy Berlin and Jamieson-Ball Ltd) were responsible for localization of logistics courses and developing language courses. Below short descriptions of partners are presented:

**WSL** has instantly taken a leading position in Poland's vocational education market in providing professional education for the profession of a logistician, since 2001. In order to cater for the need to adjust one's education and skills to the logistic market development and employer's changing requirements, WSL offers special postgraduate programmes: Logistics; Logistics for post-secondary school teachers of the professions of Logistics Technicians and Forwarding Technicians; Logistics Manager. Creating e-learning materials is the activity through which the School offers the best matching demand-offer of vocational education. WSL actively contributes to expanding the logistic expertise and provides business entities with the new tools as well as technical and organizational solutions in the broad area of logistics. Experiences carried out in EU and nationally founded projects, both as applicant and as partner, in which WSL participated, are included in above-mentioned activities. WSL has a wide range contacts with logistics companies. In 2014 year Council of employers logistics was founded by WSL as a first institution in this type in Poland. Partners of WSL are: Raben, Dachser, DHL, Panopa, EPAL, KUEHNE+NAGEL, PROLOGIS, STILL, GEFCO, PROMAG, DELPHI, GLS, MARATHON and many other. WSL in 2014 received ISO 9001:2008 certificate as a one of the first academic institutions in Poland.

**CIS** is the training and consultancy company of UNINDUSTRIA, headquarter in Reggio Emilia. Total number of staff : 27. The main goal of CIS is to contribute to the development of entrepreneurship, competitiveness and innovation of Emilian enterprises through tailor-made consultancy and training services that meet the ascertained and emerging needs of enterprises. Cis designs, organises and manage training actions also for the young, in order to ease their access to the job market and increase and/or develop the level of their key competences.

Aware of the importance of logistics processes within enterprises, CIS has been committing for years in training activities focused on this topic and the continuous contact with enterprises of the territory contributed to define a training supply developed within the concept of Supply Chain. In this view CIS has become aware of the integrated dimension of the logistics process and has leaded its training supply towards this direction. The training of CIS - Language Division can meet all the training needs with efficiency, competence and readiness: standard English, Spanish, German, French, Portuguese, Arabic, Russian, Chinese, Italian, Japanese courses. CIS methodology is ISO 9001: 2008 certified and is applied to each type of course. The School provides a placement test and a personal / business needs' analysis to help you choose the most effective course / programme and appointing the teacher with the most adequate skills and experience. For each language, courses are activated at all levels, ranging from beginner to advanced, according to the Common European Framework for Languages. The programme meets the needs of the individual, the group, the company with the help of selected and ad-hoc integrated teaching materials. All skills of the course (written and oral comprehension, written and oral expression) are periodically checked to monitor both individual progress and the updating of contents. These assessments help to substantiate the final report that will certify the participant's competence in each area. At the end of each training course a certificate of attendance will be given to participants.

**Speakeasy Berlin** is a privately owned language school specialized on adult education and operating in the Berlin area in Germany. From its very founding in 2010, speakeasy Berlin has held the belief that learning languages can be an exciting experience for the student. And that an individual can learn a language better in a pleasant, welcoming atmosphere than in the oft drab settings typically associated with learning establishments. And thus the speakeasy Berlin concept was created: a new language school that looks and feels different to most other language schools. All classrooms are decorated in a comfortable "living room"-atmosphere, encouraging teamwork and participation and (above all) involvement. Here the interests and peculiarities of the students are placed at the centre of everything. We structure the courses in small learning groups (6-10 people) and aim to understand the lives and needs of the participating individuals so that we can adjust the teaching material accordingly. Speakeasy Berlin offer a lot of flexibility to the students (content, course schedule) and are adamant about

treating all participants fairly (no registration costs or hidden fees, course material is provided by the school).

**Globalnet sp. z o. o.** is an educational institution, a limited-liability company that belongs to the non-formal learning system in Poland and mostly operates in the adult learning field. The company designs, develops, implement e-learning products and software and provide e-learning solutions and services for business sector and education. It is committed to high quality instructional design and educational new media development, and provides a core deliverable of programs, courses, and learning objects for the distance education and e-learning markets. The company is based on the mission to teach people languages, to inspire them to learn. We are looking for inspiration in teaching and learning, we try to change the way of thinking about learning and teaching that it does not have to be an obligation it could be an adventure and fun and a place where you can meet other people willing to acquire the same or other language qualifications. The company employs a design methodology that yields flexible, scalable, and reusable content, supporting people with rich, targeted solutions that are easily replicated and maintained. We cooperate with language teachers, methodologists, ICT specialists. Globalnet started as a language school and has developed into an institution taking part in many educational projects. Globalnet organizes language courses and other vocational training courses, mainly ICT, for civil servants, police officers and other professional groups. Globalnet organizes e-learning language courses for adults, especially for people aged more than 50. We have developed the software i-office to manage the administrative work of an educational institution. The company deals with: trainings, developing programs and training materials, implementation of computer systems, designing web pages, e-learning, e-business. Globalnet has experience of many years of carrying out European Union educational programs, within the framework of which it conducts research, experimental and educational activities. E-learning solutions offered by Globalnet are a fully modern system that is designed to improve the quality of education of students and to make the work of teachers easier and more enjoyable.

**Jamieson-Ball Ltd** is a limited liability company that runs a language school that specialises in English teaching within a British cultural context. It operates within the UK, and works with partners within the EU, Brazil and China. It provides teaching to adults and young learners. The company has run a variety of different courses and study tours including language courses aimed at Romanian migrants living in London, courses to prepare students for UK universities, education programmes for Chinese journalist students and is developing language courses for adults and young learners for Brazilian and Chinese students. The company also has experience in developing English language course syllabuses included IELTS and General English courses. This has also included for students from specific industries such as construction and specific first language background.

#### 4. INNOVATION OF THE PROJECT

The innovation of the project lies in the gamification of the learning process which means using game elements and game mechanics in non-game environment such as learning (e-learning). The gamification is a useful tool that increases the learner's engagement and motivation, demonstrates progress and creates habit which means that the learning process is much more effective and the learners have fun while learning. It engage their emotions, relationship. The gamification of language learning increases the engagement and motivation of learners. It also creates challenges and illustrates progress. The gamification is a trend based on the fact that 70% of people are gamers who spend hours during their day fully immersed in the gaming environment. Language courses developed within this project were gamified in the way that the learner approaches a course as a game - like environment with a goal, rewards, instant feedback, based on the mechanics like a challenge, cooperation, competition with the use of game elements such as points, badges, leaderboards, levels, trophies or avatars.

The overall level of European cooperation will increase and understanding of different cultures, languages. We expect a cooperation and involvement of partners, this will lead professionals working in logistics and transport area, teachers, trainers to improve their language skills, their competence to work in a group and their knowledge about other cultures.

Another innovative aspect of the project is the creation of a complex environment for the teaching of a foreign language, based on a modified version of the CLIL (Content and Language Integrated Learning) method. This was possible thanks to using the products of the lot4eng.com project in the form of e-learning courses focused on managerial and engineering competences in logistics and newly developed courses in the field of logistics and languages for the logistic sector at level B2 (in compliance with the CEFR). The beneficiaries of the project take advantage not only of language courses including specialist logistic vocabulary, but also e-learning modules teaching logistics in four languages. This combination is an innovative approach to teaching specialist language: specially prepared language courses offering knowledge in the field of logistics. The applied method, based on the CLIL method, makes it possible for course participants to learn a specialist language integrated with logistics. They will learn sector-specific vocabulary and selected grammatical issues and they will develop their knowledge and language skills by means of courses in logistics available in four foreign languages. Teaching a sector-specific language through courses in logistics enhance the efficiency of the learning process, embedding words and phrases in the logistic environment, as opposed to presenting them in an isolated language course. Bearing in mind the needs of the target group and various levels of language skills among its members, the partners to the project decided to develop a language course (in the form of an e-learning course) aimed at providing basic knowledge and skills in the sector-specific language (the first stage of learning). The second

stage of learning – the logistic courses in a foreign language – constitute the crucial part of the project, offering a possibility of perfecting the knowledge of the sector-specific language. The courses include glossaries with the most important sector-specific words and phrases.

Another innovative aspect in the implementation of the applied project is expanding the functionalities of the existing projects funded by the EU. The e-learning courses developed as part of the lot4eng.com project [2011-1-PL1-LEO05-19871], will constitute a basis for the development of a database of specialist logistic vocabulary which in turn will be used to develop the not only aforementioned e-learning courses and enriching them with elements of gamification. Through the right choice of the project partners, WSL is implementing a long-term strategy for the development of logistic competences at a European level.

Our innovative method of teaching the sector-specific language is based on the one hand on language courses with gamification elements and on the other – on offering professionals working in logistics a possibility to use their improved language skills to acquire new knowledge in the field of logistics (through e-learning courses with specialist sector-related content).

It is considered to sustain the project results, to spread it to different countries or within the dissemination subprogram.

## **5. PROJECT OUTPUTS**

### **5.1. Language courses**

The goal of the output is to develop language courses for logistics in 4 languages - English, German, Italian, Polish. This output involved Globalnet, CIS, Speakeasy, Jameson Ball Ltd, WSL. Globalnet coordinated the development of language courses due to its experience in language learning and teaching and specialisation in e-learning solutions. Globalnet has developed Polish course and English course in cooperation with Jameson Ball Ltd.

The stages:

- analyse of original materials (vocational vocabulary, partners material)
- the development of grammar/ lexical framework for B2 language course for vocations (German, English, Italian, Polish),
- test for assessment of language competences at the beginning of the course,
- development of guidelines for units development,
- development of guidelines for exercises development.

The developed framework took into account the fact that the course will be in e-learning format, it impacts the format of exercises and types of activities.

The courses will be based on developed framework. They cover the level B2 of language skills (in compliance with the CEFR). The course covers about 120

hours of teaching/learning material to each language. It is equipped with gamified elements to raise engagement of learners. Gamification aim is to motivate learners by involvement of game elements, create a challenge, competition. The tools that will be used within the course will be points, badges, levels, leaderboards and progress bars.

The development of the language course was based on SCRUM and Ed-tech methodology.

## 5.2. Logistics courses

Logistics courses, in compliance with the methodological assumptions, are to constitute a training field for the users, on which they can test their newly obtained skills in practice – i.e. learning logistics in a foreign language and learning foreign language in a logistics course (due to CLIL methodology).

In LLOT project 3 logistics courses was developed: Inventory management in supply chain, Transport management and Warehouse management.

Inventory management in supply chain main topics:

- analysis of a demand,
- decoupling points,
- elements of forecasting,
- service level,
- safety stock,
- models of replenishment (in make to stock model and make to order),
- systems IT in inventory management in supply chain,
- monitoring of inventory.

Warehouse management main topics:

- phases of the process of storage: inbound, storage, completion, outbound,
- storage technologies: inbound technologies, storage technologies, completion technologies, outbound technologies,
- warehouse infrastructure: buildings, storage device (eg. the store shelves), internal transport equipment (eg. forklifts).

Transport management main topics:

- transportation planning: transportation tasks, network problems, analysis of the decision-making process,
- organizing transport: performance indicators, placement on the transport traff, transport of dangerous goods,
- standardization of transport processes: standardization of assays cargo, standardization of packaging markings.

Each course cover about 60 hours of teaching/learning material to each language (240 hours in total for four languages).

In e-learning module development will be engaged specialists from many fields:

- experts from logistics (especially from field connected with topic of the course), as na expert Partners assume people with theoretical knowledge

(from universities and training institutions) and practical knowledge (well experienced workers from logistics companies). Experts from logistics will be responsible for create a content of the course,

- methodological experts - person or persons responsible for change content of the course into e-learning course scenario. They will be focused on maximalize of e-learning course efficiency. Pedagogical methods and tools have to help members of target group in better understanding of logistics content. In methodological experts will be a language teacher to coordinate a foreign language learning process in logistics course,
- technical experts - responsible for developing e-learning course in IT environment in accordance with course scenario,
- graphics - person responsible for creating layout, pictures, graphs, animations etc.,
- internal testers - persons responsible for testing e-learning course in many web browsers and many OS environments, testing technical part of the course (size of the windows, animations, links, navigations etc.,
- external testers - persons from logistics companies who will be responsible for testing the degree of adaptation to the needs of the target group.

Developing of e-learning course was divided into few subtasks:

- creating a content of the course - content will be creating by experts from logistics (theoreticians and practitioners),
- creating a scenario of the course - developed by methodological expert, converting content into e-learning course
- implementing of the course - programming work (using SCORM standard),
- testing of the course - accordance to SCRUM methodology (used in LLOT project) testing will be an element of the each previous subtasks. Final course will be tested by external testers. Course will be improved in accordance with all founded bugs and suggestions.

All e-learning courses was uploaded into e-learning platform described in next subchapter.

### **5.3. E-learning platform**

E-learning platform is an environment to hosting of e-learning courses. Main platform functionalities:

- project website - information about the project, consortium, news, info about dissemination events, etc.,
- home page to e-learning courses - e-learning courses will be upload on the platform,
- users management systems,
- learning paths,
- links to another platforms,

- poll to evaluate outputs.

Platform was developed in following steps:

- functionalities designing,
- development of the project website (first step of development),
- development of the e-learning functionalities (second step of development),
- development of main functionalities connected with e-learning courses, navigations, users management, certificates etc.,
- testing - most important step which guarantee high quality of the output.

It was realized in 3 steps.

Stages of testing:

1. Functional Testing- Functional testing ensures that the e- course is working (test conducted by the user interface). Testing through different Internet browsers (Internet Explorer, Mozilla Firefox, Opera, Safari, Google Chrome).
2. Laboratory Testing- by network carriers, is done by simulating the complete wireless network with the aim to find out any glitches when an e-module uses voice and/or data connection to perform some functions.
3. Performance Testing- to check the performance and behavior of the e-learning module under certain conditions.
4. Usability testing- to verify if the e-learning module is achieving its goals and getting a favorable response from users.

In developing e-learning platform was engaged specialists from many fields:

- researchers - responsible for design platform functionalities,
- graphic - responsible for creating multimedia and images needed to platform layout,
- IT specialists - responsible for developing product in IT environment,
- testers - responsibilities for testing functionalities and technical part of the product.

Platform is available on llot.eu.

## 6. CONCLUSION

LLOT project started on the first of September 2015 and finish in the end of August 2018. For 36 months partners was developed many outputs: language courses (for 4 languages), three logistics courses (in 4 languages: English, German, Polish, Italian) and e-learning platform which supports gamification of learning process.

On of the crucial element of LLOT project was dissemination. Partners made many events to disseminate project. It had an effect. On the llot.eu platform during the project over 1 500 users created an accounts and over 800 of users took part in gamification.

In next chapters gamification as a tool to improve teaching and learning process was described. There is an information about the results of gamification in LLOT project too.

## ACKNOWLEDGEMENTS

Publication was develop under Logistics Language Open Training project financed by EU in ERASMUS+ programme. No of project 2015-1-PL01-KA202-016464.

## REFERENCES

[http://www.mexder.com.mx/wb3/wb/MEX/MEX\\_Repositorio/\\_vtp/MEX/21b6\\_avisos/\\_rid/21/\\_mto/3/IOMA2002.pdf](http://www.mexder.com.mx/wb3/wb/MEX/MEX_Repositorio/_vtp/MEX/21b6_avisos/_rid/21/_mto/3/IOMA2002.pdf)  
<http://www.statista.com>  
<http://www.theguardian.com/uk/2001/feb/20/education.educationnews>

## BIOGRAPHICAL NOTES

**Michał ADAMCZAK** PhD. Eng., academic teacher, Assistant Professor in Poznan School of Logistics. He has a long experience in managing and developing educational projects financing by EU (programmes LLL, ERASMUS+), projects: lot4eng.com, LLOT, MLL, LLIL. Author and coauthor over then 70 scientific papers in logistics area. Consultant, trainer and coach in supply chain management. he is interested in moder educational methods especially in e-learning and blended learning. In research he is interested in supply chain integration, planning processes and new technologies in supply chain operations.

**Roman DOMAŃSKI** - Academic teacher, Assistant Professor at the Department of Logistics Systems of the Poznań School of Logistics. A member of the research teams in scientific projects financed by the National Science Centre and the Ministry of Science and Higher Education. The author of a logistics game for the secondary technical school of logistics developing vocational knowledge and skills. A member of the Scientific Committee of the Polish Logistics Olympiad (10 editions). An author of e-learning internal (Poznań School of Logistics) and external (European Social Fund) courses. A logistics trainer and business consultant involved in the cooperation with the Poznań Logistics Education Centre and the Poznań Institute of Logistics and Warehousing.

**Piotr CYPLIK** – Prof., Author of above one hundred scientific papers in national and international publications. Author and coauthor of many books. In his scientific work he is concerned on logistics, production and inventory. Project manager in many consulting projects in manufacturing companies and distribution companies. Project manager of Leonardo da Vinci and ERASMUS+ projects.