

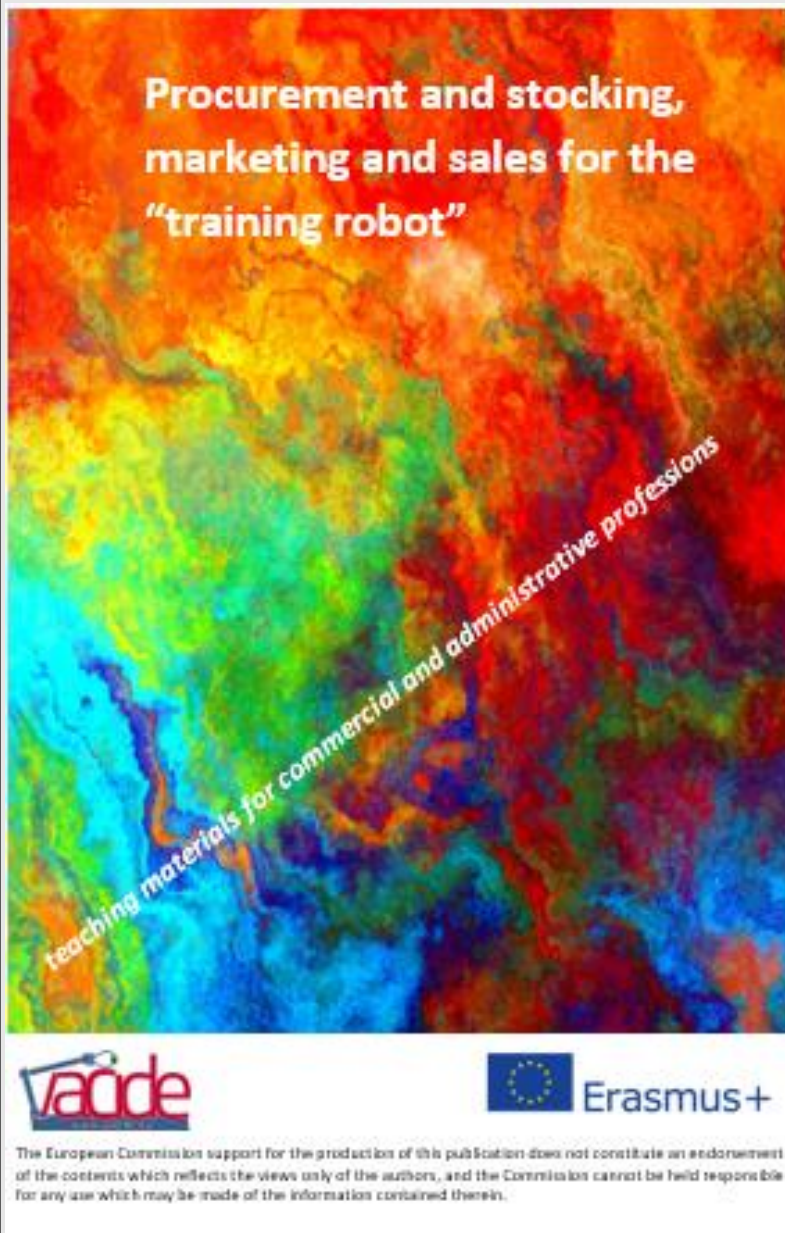


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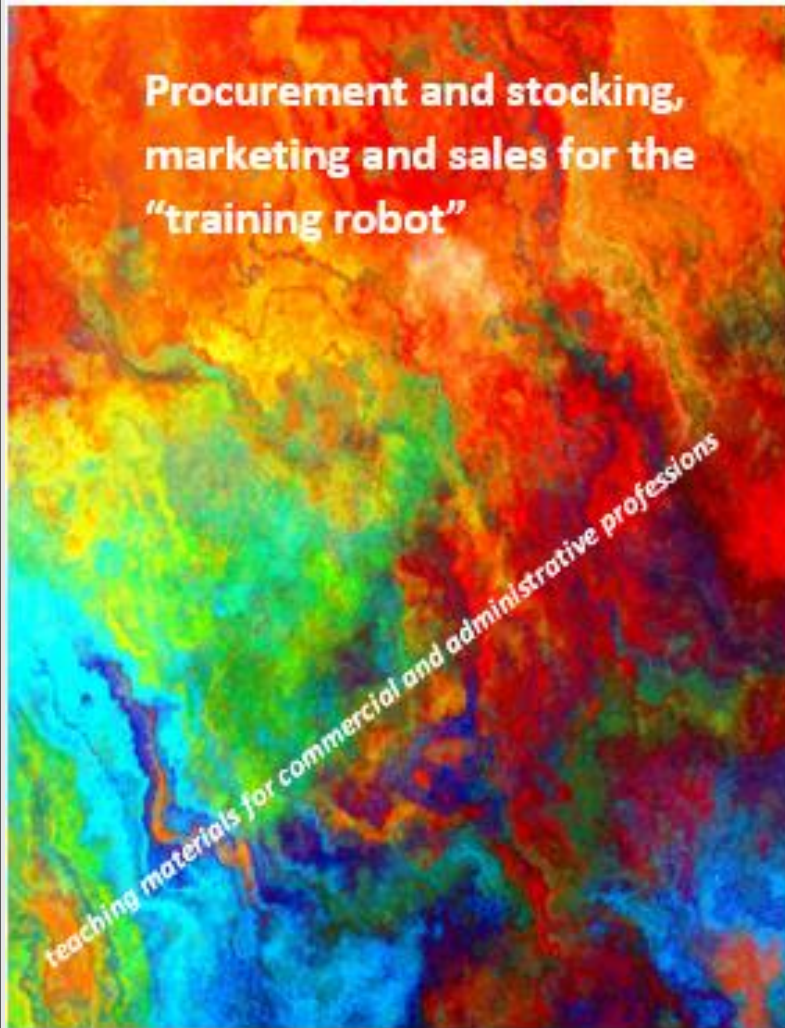


IO3: Workplace-oriented learning
project "**Procurement and
Stockpiling, Marketing and Sales for
the product training robot**" for
commercial-administrative
professions



The learning materials

- available online (project website / Partners' websites)
- Languages: English + Italian
- To be tested with **25 trainees/learners** and **20 trainers/teachers**.
- Should be completed in mid-2021 in order to allow for the three-month **reflection** with trainers/teachers.
- **First testing** with apprentices/students



Erasmus+

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The learning materials

- Collection of **feedbacks**
- **Evaluation** from Gebifo from 10/2021
- **Updated** and **improvement** based on feedbacks and evaluation
- **Second testing** with apprentices/students starting 09/2022

Questions

- We are constantly in contact with different **teachers/trainers** to get suggestions and inputs about the materials we are developing, but we have no evidence.
- **How can we report it?**

Testing with students:

- How do we have to report it?

Contents of the introductory part

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The partnership

VHS-Bildungswerk GmbH, Zweigniederlassung Thüringen – Gotha, (Germania)

Eurocultura – Vicenza, Italia

Gesellschaft zur Förderung von Bildungsforschung und Qualifizierung mbH –
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The Vacide project

The project "VACIDE - vocational action competence in digital environments" is implemented by 4 partners from Slovenia, [Italy](#) and Germany, supported by various associated partners.

The starting point is the impact of the digital transformation of work and production processes. These places changed demands on the technical, methodological, [social](#) and personal competences of skilled workers: problem-solving, self-learning competence or dealing with complexity as well as process understanding are cross-sectional competences (G. [Spöttl](#), 2016), which are needed in addition to technical knowledge and skills to cope with the challenges.

The digital transformation is also changing the service provision processes in almost all sectors in the EU to a great extent. Characteristics of this are the smart networking of work, resources, objects and information, the digital mapping of processes and the use of sensors along the entire process chain [in order to](#) be able to carry out their planning, operation and maintenance, including any necessary interventions, with IT support.

To prepare future professionals for these developments, VACIDE derives the development, testing and dissemination of workplace-oriented learning projects, digital learning sequences to explain and accompany the associated learning processes and the description of the successful use of the learning projects and digital sequences at different learning locations as central objectives. This is to ensure that the construction of the specific workplace-based learning projects establishes a reference to international supply chains, both as learning content and as learning environment. The learning object, the construction of a training robot, is divided into congruent assemblies/support processes that make sense in themselves, produced at different production sites (successful learning cooperation) and then assembled into the final product "robot".

Furthermore, to promote workplace-oriented learning, inter-company learning projects are to be developed and tested for the acquisition of vocational action competence by trainees in a digitalised working world. In addition, teachers will be supported in creating digital content and using it in a didactically appropriate way: Through the approach of workplace-oriented learning, they will be enabled to use process-oriented methods to promote the action competence of learners in the digitalised world of work. The basic idea of the learning projects enables joint learning based on a business process.

The intellectual outputs resulting from the VACIDE strategic partnership can also represent a "blueprint" at all levels that enables VET actors to develop and implement learning projects themselves.

The WBL methodology

Work-based learning is an educational strategy that provides students with the opportunity to put theory into practice with real-life work experiences. It is a powerful form of pedagogy that can be used to develop basic work habits, occupational identity and specific occupational competences. It can motivate disadvantaged, disengaged and failing students, develop generic skills such as initiative and problem-solving, and teach entrepreneurship.

Work-based learning is used in vocational education and training to develop b occupational identity, and specific occupational competences.

Work-based learning can be used in general education to develop problem-solving skills and learning skills: for example through allowing learning to be organized around joint accomplishment of tasks, so that elements of a skill take on meaning in the context of the whole, and by allowing competence to build step by step (Ainley, 1996; Resnick, 1987).

This educational strategy effectively bridges the gap between education and the working world, giving students the opportunity to ground their theoretical knowledge in something tangible.

How to work with this booklet

This booklet has an introductory section, in which you will find information about the project, the type of training course it is suitable for, the knowledge and skills your students are expected to achieve and the prerequisites for working with it (scenario).

The booklet is divided into four modules: procurement, storage, marketing, sales. You can use all of them, or just a few: choose what suits your students' educational path. Whether you propose one or more than one, you mustn't forget to introduce their work with the presentation of the scenario: every module is based on it and works like a business simulation.

At the beginning of each module, you find the task and the assignment. After presenting the scenario to your students, explain the task to them and give the assignment. The working methodology indicated for this project is that of the flipped classroom: students should attempt to perform the assignment independently, drawing on knowledge and skills already acquired during their education and applying them to the context of this scenario.

Each module is then provided with sufficient learning material, structured in chapters and sub-chapters, which the teacher can decide to offer in whole or in part to the students in the course of their work, if he/she considers it necessary as a supplement, or to complete the whole.

The task can be carried out at school or in the company where the students do their training. Group work is often suggested as peer learning.

Learning outcomes

Knowledge	Skills	Responsibility and autonomy
<i>In the context of EQF, knowledge is described as theoretical and/or factual.</i>	<i>In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).</i>	<i>In the context of the EQF responsibility and autonomy is described as the ability of the learner to apply knowledge and skills autonomously and with responsibility</i>

Source: <https://ec.europa.eu/ploteus/content/descriptors-page>

Learning outcomes

to decide if
description
according to
ECVET

Structure of contents

The procurement department

The scenario

Tasks for the procurement department

Assignment for the students

Suggestions for the teacher

4 learning units:

- Procurement department
- Storage department
- Marketing department
- Sales department

The procurement department

The scenario

EWWM (*Eucur World Wide Marketing*), is a commercial enterprise based in Vicenza, north east of Italy.

With its 30 years of experience in the major world markets and thanks to its experienced staff, the company is one of the main players at international level in the marketing of robotics and robot tools for the craft industry, especially in the manufacturing and logistic sectors.

The German company ALU KG which, in partnership with the Slovenian company LPP, intends to produce the robotic arm THOR V2.02, and has contacted EWWM to verify the possibility of marketing this product in the EU and overseas countries.

ALU KG is also interested in providing customers with an after-sales service especially with regard to the supply of components of the robotic arm, to ensure that any repairs due to wear or breakage of the mechanical parts of the THOR V2.02 can be carried out on site, without the product having to be returned to the manufacturer.

EWWM must therefore reconsider its internal organization in order to be able to start this new business, involving different departments of the company.

Tasks for the Procurement department

The first and most important task of the **procurement department** is to make an investigation so that the management can decide in which countries the spare parts for the THOR V2.02 will be purchased. All the costs that will affect imports from EU and non-EU countries and what their impact on the final price will therefore be identified.

Assignment for the students

Prepare a prospectus listing all the cost items that contribute to forming the price with particular attention to import costs.

Remember that management will have to decide which countries to import THOR spare parts from. They are currently interested in importing from China, the UK, Germany and the USA.

In your prospectus you must indicate how much customs duties will affect the products depending on the country of production.

The management's purchase decision will be based on this work of yours.

Suggestions for the teacher



Learning materials

The selling price

Fixed costs and variable costs

Import of goods from a non-EU country

Free movement of goods within the EU single market ..

CE marking

The profit margin

Bibliography

The storage department.....

The scenario

Tasks for the storage department

Assignment for students.....

Suggestions for teachers

Tasks for the storage department

The Storage department must prepare a program to keep constant track of warehouse stocks. These are the spare parts of THOR. Since the company does not currently have an integrated management software system, an electronic calculation program such as Excel will be used.

Assignment for students

Based on the scenario, hypothesize the best organization for the storage of your products. Keep in mind all the necessary steps. Also identify at least one 4.0 innovation tool that is easily applicable to the scenario.

After that, create an Excel sheet as a warehouse management system (WMS), inserting all the elements you deem appropriate for a correct management of purchases, sales and inventory management. Remember that this sheet is just the final product of a rational warehouse organization: first you have to have clear in mind how your warehouse is structured and what you need to control inputs, outputs, position of goods, inventory.

You will be provided with the list of THOR's spare parts (attached).

Suggestions for teachers

Let your students work in small groups: peer learning will strengthen their project. They need their learning material (book, booklets etc.) but they can also use the Internet as a source of information, especially for 4.0 innovations.

Check whether they plan a storage system related to the concrete scenario, or if they waste time in revising theory. Help them motivate their choices. At some point of their project, you can give them some of this material to integrate missing parts.

The IT teacher will also have a role in the second phase.

Learning materials.....

What is the warehouse

Warehouse management documents.....

Warehousemen and staff.....

Warehouse safety

Warehouse logistics

Warehouse layouts.....

Order preparation and picking.....

Picking list

Best practice

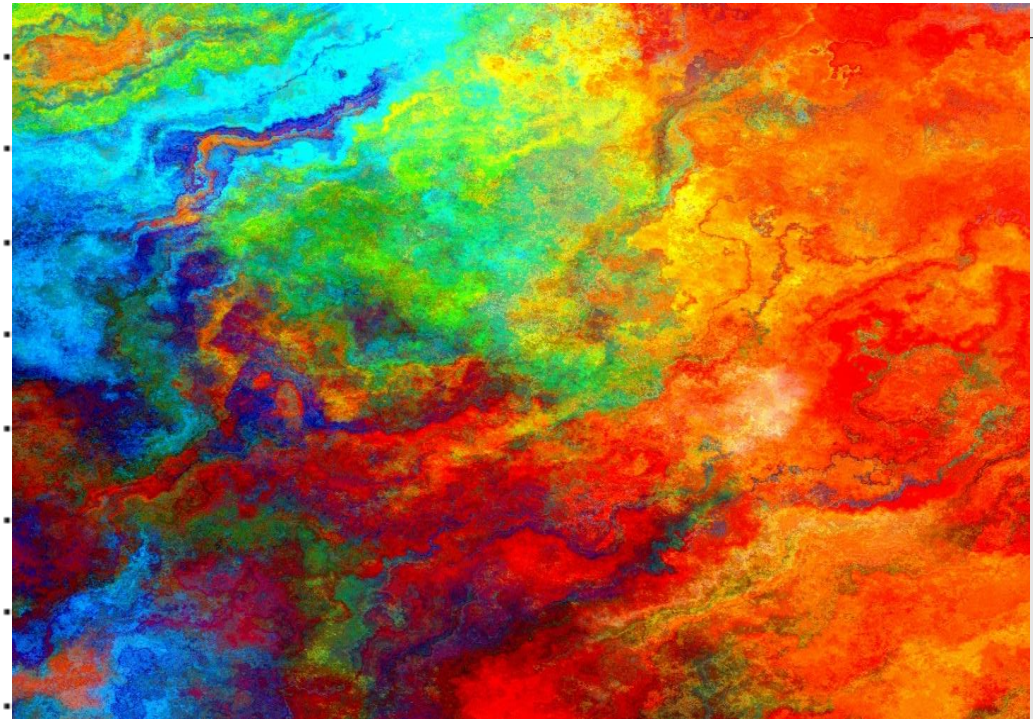
What is a WMS

Modules and functions of a WMS

Through radiofrequency, a warehouse software can be integrated with the technologies: ..

Innovation: logistics 4.0

Bibliography.....



Digital learning sequences

- 1 digital learning sequence per learning unit
- video duration: 3 / 4 minutes maximum
- the content of the video highlights a particular aspect closely related to a topic covered in the educational material
- The digital learning sequence will be in Italian with subtitles in English



Thank you for your attention

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Dalmar Mohamed Ali