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COstruction and DEmolition waste  
management training for Site MAnagers

# CODESMA

## Position Paper and Education - Business Agreement Global Strategy Output O5-T3

**PSMB**

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## STRATEGY

Construction & Demolition (C&D) waste is the largest waste stream in the EU, representing about one third of all waste produced in terms of volume. EC initiatives such as the EU Construction & Demolition Waste Management Protocol (2016), the Construction 2020 Strategy (2012), the Communication on Resource Efficiency Opportunities in the Building Sector (2014), and essentially the Circular Economy Package (2015), demonstrate a strong will at EU level to raise awareness and build knowledge in the EU construction sector regarding C&D waste management.

This has in turn resulted in an increased need for up-skilled construction technicians, especially site managers, properly trained and knowledgeable in C&D waste management procedures. According to Eurostat, app. 882.000 enterprises operate in the EU-27's construction sector (NACE Division 41, 2010), employing 3.9 million persons, from which 260.000 are site managers. Site management in construction involves overseeing operations on a day-to-day basis, and ensuring that work is done safely, on time, within budget and to proper quality standards. Competition is global, and workforce skills have to be continuously updated following technical advances and environmental priorities & legislation.

The training of site management technicians, and especially site managers employed by renovation, construction & demolition companies, varies across the EU, depending on each country's qualification framework & approach. In most countries, site managers usually receive CVET courses or in-company workplace training in the context of 2-3 years apprenticeships, building up experience in work areas such as planning, and assisting construction engineers & technicians.

## TRAINING NEEDS ADDRESSED

Improved waste identification requires good understanding & implementation of the pre-demolition audits and good waste management plans to be prepared and executed. Source separation targets the elimination of hazardous waste, as well as the separation of materials that hamper recycling. Improved collection of goods for recycling requires selective demolition & appropriate on-site operations.

However, decisions on such on-site preparation for demolition need to be taken on a case by-case basis taking into account economic, environmental, social and health factors and risks. Within this context, even the most experienced site managers need additional knowledge in order to respond to the above procedures.

Specifically, there is a need to provide the construction sector, and especially renovation and demolition companies, with up-skilled site managers capable to:

- supervise on-site works regarding waste identification, separation & collection at source,



- follow the instructions of the pre-demolition audits,
- implement adequate dismantling & demolition practices,
- execute waste management plans for site-works,
- eliminate hazardous waste,
- deal with technical & organization challenges,
- ensure the safety of workers,
- consult with customers, architects, workers & other involved agents.

## PROJECT OBJECTIVES

The project CODESMA formed a Strategic Partnership to modernise VET for site managers in the EU, aiming to:

OBJ-1. Define appropriate learning outcomes and develop a training course to address C&D waste management skills needs, to enhance relevant VET provision for site managers.

OBJ-2. Introduce modern training methods in the form of OERs (learning material) and Vocational Open Online Course (VOOC).

OBJ-3. Support the integration of C&D waste management skills into EU certification & standardisation schemes.

All the objectives were fulfilled and outputs of the project CODESMA are available for implementation into existing educational and business schemes.

## TARGET GROUPS

- Initial VET & Continuous VET students intending to work as site managers
- Site managers and other construction industry practitioners employed in the construction sector
- VET providers for construction site managers
- Construction industry employers such as renovation companies and demolition contractors that provide in-house training
- Stakeholders and associations in the construction sector

Overall, the project provides an opportunity for all involved agents in the construction industry (sector representatives, VET providers, field experts) to upskill current staff, as well as to offer modernised IVET to students looking for employment as site managers, renovators and constructors.

## INNOVATION OF THE PROJECT

- Content innovation

The partnership developed and offers a novel course for C&D waste management training, aiming to support site managers with updated knowledge and the “know-how” with regards to principles, and services related to waste identification, separation and collection at source and on site. Therefore, it offers original learning resources specifically addressing the supervision and management skills needs of the construction site sector, beyond the existing supervision and management skills focus (e.g. technical, environmental,



regulative aspects, health and safety, as well as other on-site technicians and customer consultation).

- Delivery method innovation

The project consortium produced OERs and made the curriculum available in the format of a VOOC to support informal learning and personal learning pathways, as a means to reach individuals often reluctant to participate in continuous training opportunities.

- Methodological innovation: learning outcomes approach

The project adopted a learning outcomes approach in the design of the curriculum to connect the developed VET programme with the European reference tools (EQF, ECVET) taking into account the findings of the ongoing comparative study of learning outcomes based VET qualifications (carried out in a cooperation between CEDEFOP, ETF and UNESCO). As VET provision differs from country to country, this approach contributes to the promotion of a common language for skills of site managers, supporting future recognition and validation and addressing the mobility needs of this workforce in Europe.

## LINK TO EU POLICIES

CODESMA promotes the EU Construction & Demolition Waste Management Protocol (2016), the Construction 2020 Strategy (2012) and the Communication on Resource Efficiency Opportunities in the Building Sector (2014); overall, the project essentially supports the Circular Economy Package (2015). In addition, it serves the ET2020 framework by developing up-to-date VET for site technicians ensuring the matching of labour market with skill requirements in waste management procedures. It also complies with the initiative of "Opening-up Education" widening access to education through OERs. Developing knowledge and skills in C&D waste management also supports EU policies such as the "Bruges Communiqué", the "Vocational education and training for better skills growth and jobs" and the "Agenda for new Skills and Jobs".



# BUSINESS-EDUCATION AGREEMENT MODEL

**Place:**

**Data.**

Agreement between:

CODESMA Partner, names, addresses, contacts, etc

And

ORGANISATION, names, addresses, contacts, etc.

This agreement sets for the terms and understanding between the (CODESMA partner) and the (ORGANISATION) to support introducing and using modern training methods in the form of OERs (learning material) and Vocational Open Online Course (VOOC) related to C&D Waste Management and to invest in VET in C&D waste management on the base of Erasmus+ CODESMA project results (**CO**nstruction and **DE**molition waste management training for Site **MA**nagers).

## Purpose

This position paper is addressed to bodies and stakeholders that are active in the construction, demolition & renovation sector and/or participate in policy-making consultation (key sectoral players, national regulatory authorities for certification, NQF agencies, social partners, and qualifications awarding bodies). The purpose of the paper and the business-education agreement is to support the integration of C&D waste management skills requirements into the National & European Qualification Frameworks. The position paper and yje agreement also aims to support policy-making towards initiatives, seeking to increase the provision of high quality skills and competences for construction, renovation and demolition site managers and bring closer the world of VET with the needs of the labour market strengthening the skills-employment linkage.

Examples of collaboration with the organisations and incorporation of the results of the project:

- ✓ Provide training for construction site managers
- ✓ Receive future experts in C&D waste management training, to carry out practical activities in company
- ✓ Open opportunities, in the market, by the new experts, once formed.
- ✓ Make dissemination of project and experts among the associates
- ✓ Support of integration of the training into EQF and NQF education system



- ✓ Provision of courses based on materials developed in CODESMA Project (OER and VOOC).

### Funding

This agreement is not a commitment of any funds from both parties.

### Duration

This agreement shall become effective upon signature by the authorized officials and will remain in effect until modified or terminated by any one of the partners by mutual consent with one-month notice. It may be modified by mutual consent of authorized officials from both parties, in written.

In prove of conformity, the both partners sign this agreement, in the place and data referred in first page.

CODESMA partner signature, place  
and date)

Organisation signature, place and  
date)

Name and position

Name and position