



GreenGrowth:

Competencies to face the  
circular economy challenge  
in the construction sector

Greening TVET



**Innovation and Learning Practice**

**Bridging Innovation and Learning in TVET (BILT) Project**

**Submitted by Fundación Laboral de la Construcción, Spain**

The GreenGrowth project identifies new skills and competencies required for advancing the circular economy in the construction sector. It promotes the integration of these skills into training curricula and regulatory frameworks, ensuring they are effectively implemented in educational and training practices.

*Start date:* November 2020

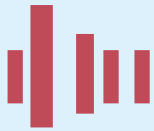
*End date:* May 2023

*Type of implementing institution:* Not for profit/NGO

*Implementing partners:* Bildungszentren des Baugewerbes e.V. (Germany), Sustainum Institut (Germany), Centre IFAPME Liège-Huy-Verviers (Belgium), Centro Edile Andrea Palladio (Italy), Chamber of Commerce and Industry of Slovenia-CCIS (Slovenia), Armadillo Amarillo (Spain)

*Funding programmes:* Erasmus+ programme, call 2020, Key Action 2, Strategic partnerships for vocational education and training

*Target groups:* Construction trainers, managers and other staff; construction companies; technical and vocational education and training (TVET) centres



## Fundación Laboral de la Construcción (FLC)

FLC was created in 1992 by national social partners in Spain's construction sector. The not-for-profit foundation provides high quality, practical training for small and medium enterprises (SMEs) and construction workers, using cutting-edge technology and materials. It aims to (re)skill workers and enhance their employment and professional development.

## Description of activities

The GreenGrowth project was created to reduce the construction sector's CO2 emissions by implementing strategies that reinforce the circular economy, particularly in building renovation. The project's labour market analysis – conducted with companies, industry organizations and TVET institutions – enabled an understanding of current and future market demands. Project partners worked with educational institutions to develop curricula that incorporated the new skills and knowledge identified, including specific modules on the circular economy, energy use, sustainability, and waste management in the construction industry. The specific project aims were to:

- deliver training resources and provide training for construction TVET trainers on the principles of the circular economy and the practical skills required for emerging applications
- reinforce social and environmental awareness among construction TVET trainers, workers and SMEs
- develop a sustainable strategy that incorporates circular economy principles within the culture of TVET centres.

## Relevance

### What issues was the GreenGrowth project designed to address?

Enhanced sustainability in the building sector is essential to achieving Europe's goal of climate neutrality by 2050, given that the sector generates **over 35% of the EU's total waste**. The **EU's Circular Economy Action Plan**, established in March 2020, identifies building and construction as *key product value chains*, meaning they are important areas where circular economy principles can significantly impact.

It is vital, therefore, to build relevant skills and competencies within the sector by reinforcing circular economy aspects as transversal skills for trainees and

professionals. To do so, TVET institutions need the knowledge that allows them to deliver the necessary training. The GreenGrowth project was a response to the skills gap in the sector particularly among manual workers and SMEs specializing in renovation.

### What tools have been developed to support this work?

The following products have been developed in multiple languages:

- **'Circular Economy in practice' handbook:** Pedagogical material and real-life case studies for construction trainers.
- **Mobile application on circular principles in renovation work:** Reference tool for workers and SMEs.
- **Case studies and exercises:** Resources for trainers on the application of the circular economy in practice.
- **Circular economy recommendations:** Roadmap for adopting key principles in TVET centres as a permanent part of their culture.
- **Circular Economy Skills course:** Five-module course for construction sector trainers, designed to promote lifelong learning and foster the adoption of European principles on circularity, including recycling, waste reduction, and green economy practices to combat climate change.

Additionally, the project reached beyond TVET centres working with recycling companies, policymakers, social partners and other key actors involved in the construction industry, through focus groups, interviews, info-days and multiplier events.

## Added value

### What is unique about the GreenGrowth project compared with similar initiatives?

The GreenGrowth project introduced several key principles:

**Focus on renovation.** Unlike most circular economy training, which targets new construction, the project targeted renovating existing buildings—a crucial yet often overlooked area for sector sustainability.

**Train the trainer.** Targeted at construction sector trainers, this approach equips trainers with circular economy skills to effectively multiply knowledge and practice to trainees across the industry.

**Target TVET level.** The project addresses the gap in circular economy training at the TVET level, equipping students with the knowledge and skills needed for careers in the construction sector.

**Emphasize the life-cycle circular economy.** The approach covers the entire life cycle of materials and buildings, from design to demolition, and the re-use of materials.

## What positive outcomes has the GreenGrowth project produced?

Since inception, the project has reached more than one million recipients. This includes young people, sector experts, teachers, public administration officials and relevant actors in education. It has engaged people through the project's website, social media and broadcast media appearances, as well as presentations at approximately 30 events attended by 15,000 people. The implementation of the GreenGrowth project also contributes to:

**Reducing waste.** Future construction professionals gain training in minimizing waste and maximizing the re-use of materials, contributing to Europe's sustainability goals.

**Enhancing employability.** Students completing the certified course gain new skills and competencies in circular economy practices for the construction industry, boosting their employability and preparing them for in-demand specialized roles.

**Cost saving.** Adopting circular economy strategies leads to substantial cost savings for construction companies by improving resource efficiency and reducing waste management expenses.

## Transferability

### To what extent is this initiative transferrable?

The project provides valuable learning opportunities for TVET stakeholders and its developed resources and methodologies could serve as models for enhancing circular economy training across the broader construction sector. The project is also highly adaptable to various educational and cultural contexts.

### What advice would you offer to those wishing to replicate this initiative?

Due to variation in national/local regulations and potential resource limitations, it is essential to carry out thorough preliminary research before implementing any actions. Collaborating with local governments or regulatory agencies can help ensure compliance, while adapting to available infrastructure, including internet availability, and diversifying funding sources from the outset can address financial sustainability challenges.

### Has the initiative been promoted in any national or international contexts?

The project has been promoted and disseminated in the five participating countries (Belgium, Germany, Italy, Slovenia and Spain). It was featured at the **CONAMA 2022 Congress**, the **High Level Construction Forum**, the **AEIP's Working Group of the Construction sector** and the **6th International Congress on Technological Innovation in Building**. It has also been recognized as a model of best practice for developing a TVET strategy that positions the circular economy as a transversal competence within construction sector training.

Fundación Laboral De La Construcción's initiative 'GreenGrowth' is one of the BILT project's Innovation and Learning Practices that address systemic challenges within the five work streams of the project.

Specifically, the GreenGrowth initiative addresses greening TVET.



## Greening TVET

*Responding to new development paradigms for sustainability and reduced environmental impact*

Additional Innovation and Learning Practices cover the following areas:



**New Qualifications and Competencies in TVET**



**Entrepreneurship in TVET**



**Digitalization in TVET**



**Migration and TVET**

---

### Contact person:

Beatriz Oliete, Head of Training Projects Department  
[boliete@fundacionlaboral.org](mailto:boliete@fundacionlaboral.org)

**More information about this practice:**  
**GreenGrowth project**

The designations employed and the presentation of material throughout this document do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The ideas and opinions expressed in this document are those of the authors; they are not necessarily those of UNESCO and do not commit the Organization.

© UNESCO, 2024

This document is available in Open Access under the Attribution-ShareAlike 3.0 IGO (CC-BY-SA 3.0 IGO) license (<http://creativecommons.org/licenses/by-sa/3.0/igo/>). By using the content of this publication, the users accept to be bound by the terms of use of the UNESCO Open Access Repository ([www.unesco.org/en/open-access](http://www.unesco.org/en/open-access)).

Cover photo: © Fundación Laboral de la Construcción

## About the BILT Project

UNESCO-UNEVOC's Bridging Innovation and Learning in TVET (BILT) project is a reference point for innovation and learning in TVET. It utilizes the international UNEVOC Network to create opportunities for collaboration and a platform for bridging innovation and learning between Europe, Africa and the Asia-Pacific region. BILT complements developments at the national level in supporting innovative, market-oriented and attractive modes of learning and cooperation in TVET.

The BILT project explores the process of identifying, integrating and implementing new qualifications and competencies in TVET. This is known as the 'three I's process'. In addition to the broad focus on new qualifications and competencies, BILT addresses four complementary themes: Digitalization in TVET, Greening TVET, Entrepreneurship in TVET and Migration and TVET.

For more information, please visit  
[www.unevoc.unesco.org/bilt](http://www.unevoc.unesco.org/bilt)

or contact us at  
[unevoc.bilt@unesco.org](mailto:unevoc.bilt@unesco.org)

## New Qualifications and Competencies in TVET

- **Identifying** new qualifications and competencies in a timely manner;
- **Integrating** them into appealing and flexible curricula and training regulations; and
- **Implementing** them in innovative training approaches.

## Entrepreneurship in TVET

Unlocking the potential of innovative entrepreneurial activities and fostering entrepreneurial culture

## Greening TVET

Responding to new development paradigms for sustainability and reduced environmental impact

## Digitalization in TVET

Providing response to new skills demands, as technology has permeated the world of work and is changing the profile of jobs

## Migration and TVET

Accelerating the integration of migrants into their host communities and allowing them to become productive members of the workforce

IMPLEMENTED BY



WITH SUPPORT OF



SPONSORED BY

