

# Innovative forms of capacity building in the public administration – the example of the “CaPABLE” project

Innowacyjne formy budowania potencjału kompetencyjnego administracji publicznej na przykładzie projektu CaPABLE

**Słowa kluczowe:** kompetencje, potencjał, umiejętności, e-nauczanie.

**Streszczenie:** Niniejszy artykuł opisuje wyniki prac międzynarodowego konsorcjum w ramach projektu CAPABLE – w zakresie budowania kompetencji pracowników administracji publicznej zaangażowanych w renowację ich zasobów budowlanych. Głównym rezultatem tych prac jest stworzenie innowacyjnego narzędzia kompetencyjnego w postaci innowacyjnej platformy e-learningowej, podręcznika kompetencji oraz publikacja rekomendacji dla władz centralnych i lokalnych w celu przezwyciężenia barier we wdrażaniu zielonego budownictwa w administracji publicznej. Wszystkie dane zawarte w artykule pochodzą z wewnętrznych zasobów projektu i zostały przedstawione na podstawie własnych badań. Dane te wskazują na istniejące zapotrzebowanie na innowacyjne i dostosowane do potrzeb użytkowników narzędzia służące pogłębianiu wiedzy, w szczególności w kontekście specyfiki pracowników administracji publicznej.

**Key words:** competence, potential, skills, e-learning.

**Abstract:** This article describes the results of the work of an international consortium within the CAPABLE project – on building the competence of public administration staff involved in the renovation of their building stock. The main outcome of this work is the creation of an innovative competence tool in the form of an innovative e-learning platform, a competence handbook and the publication of recommendations for central and local authorities to overcome barriers to the implementation of green building in public administration. All data included in the article are from the project's internal resources and are presented on the basis of our own research. These data indicate that there is a need for innovative and customised knowledge enhancement tools, particularly in the context of the specifics of public administration employees.

## Introduction

In today's dynamic world, constantly changing work conditions require public administration employees to continuously improve their skills and acquire new knowledge. The provisions of the Green Deal, as well as the standards of the Renovation Wave and the Long-Term Renovation Strategy for buildings, present a series of challenges to all sectors of the economy in adapting their resources to the requirements of combating climate change. These challenges affect not only industries as obvious as the energy sector or the construction industry but also public

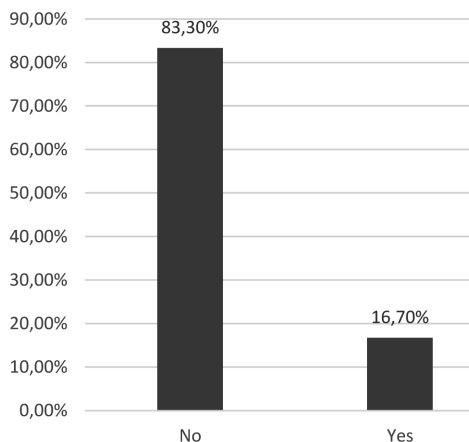
administration. They require not only overcoming technical and technological barriers, seeking new innovative solutions, but also addressing the issue of rapid and continuous education at every level of implementing the aforementioned policies.

### Research and Educational Needs

These challenges, which combine various levels of engagement to achieve predetermined goals, impose on the shoulders of administration workers the requirement of possessing knowledge and deepening competencies, which the officials and stakeholders delegated to these tasks are not always able to meet.

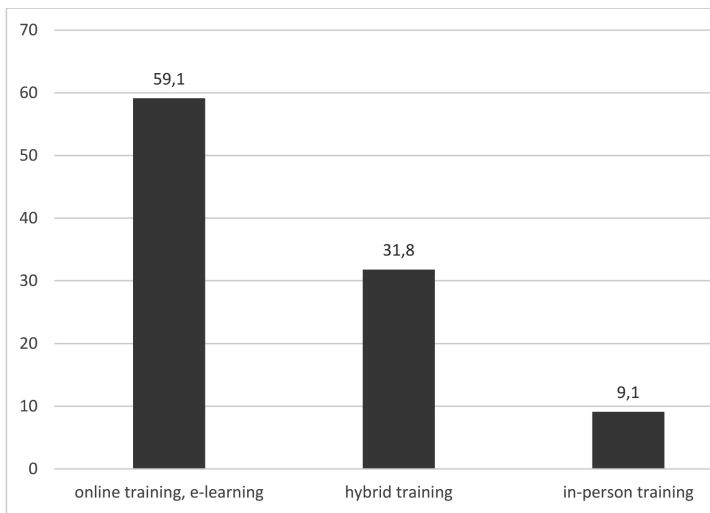
As part of the training needs assessment, a series of interviews were conducted with stakeholders from the construction sector. These were representatives of the construction professions and public administration involved in the decarbonization of building resources. All data used in the article is information collected during the design work of the Capable project. The study also used information collected from complementary experiential learning projects such as Encore and Susedi.

During the work of the international consortium of the CaPABLE project, differences in the level of knowledge between employees of central authorities and regional bodies were identified, along with a lack of adequately qualified public officials and an aging workforce, often digitally withdrawn and resistant to traditional forms of training. This is a significant problem in all partner countries at every level of administration. Meanwhile, urban renovation strategies are crucial for ensuring long-term planning, and member states will achieve their energy-saving goals only if these strategies are implemented at the municipal and regional levels, requiring personnel with specific, minimal competencies in implementing climate policy.



**Fig. 1. Are you aware of the challenges facing public administration in connection with the goals of the Green Deal and the Renovation Wave, as well as the resulting executive regulations ? (Authors own research, percentage breakdown, 12.2023, n=80**

A survey conducted at the beginning of the CaPABLE project implementation showed that among public administration officials, apart from superficial knowledge of climate challenges, familiarity with programs and procedures related to building renovation in a broader context remains at a low level. Respondents noted the lack of tools and difficulties in acquiring basic knowledge from scattered sources, which is a significant barrier to enhancing their competencies in this area. At the same time, the vast majority of those interested indicated innovative learning methods as preferred, guaranteeing freedom of access and content integration.



**Fig. 2. What model of training do you prefer to improve your competencies (Authors own survey, percentages breakdown, n = 80)**

In response to these challenges, educational projects such as CaPABLE aim to provide effective and innovative forms of enhancing workers' competencies, particularly in the field of sustainable development and building renovation.

In today's climate change battle and its consequences, continuous skill improvement and acquiring new knowledge have become an integral element of professional success. The seamless integration of digital and green competencies, along with a flexible and innovative approach to education, which the classical model of knowledge supplementation cannot provide, becomes a natural path for career development and ensures a professional approach throughout the process.

In this context, innovative e-learning platforms become extremely important tools, enabling convenient, flexible, and effective competency enhancement in various fields.

One such platform with an open educational resource is the CaPABLE e-Learning Platform.

## CaPABLE Project

The international CaPABLE project brings together researchers, educators, and experts from five European countries, aiming to strengthen the capacity of public authorities in the renovation of public utility buildings. This will help them meet the key challenges associated with such actions, enabling behavioral change and preparing key stakeholders in the public sector to implement changes necessary to achieve EU goals in environmental protection, sustainable development, climate protection, and energy efficiency improvement.

Within the CaPABLE project activities, a holistic and grassroots approach to building renovation is envisaged, proposing innovative educational components at all stages of its implementation. During the project team's work, an international competency-building manual and an interactive educational platform were developed, gathering essential knowledge in one place necessary to enhance the competencies of public administration employees in the field of energy-efficient renovation of their building resources. The project is co-financed by the EU under the Erasmus+ program.

### Competence building handbook

As part of the work of the project and prior to the achievement of the main objective of the e-learning platform, a Competence Manual has been produced<sup>1</sup>. It aims to create a useful tool for public authorities, containing good examples identified in the consortium countries (Italy, Greece, Poland, Slovenia) at different levels: central, regional, local. It focuses on the key skills needed to meet the challenges of renovating public buildings. It also provides an overview of the current legal framework at the time of writing, the activities carried out and the training available in the countries that make up the CAPABLE project consortium. The report also formulates key conclusions and recommendations to be taken into account when developing CAPABLE training projects. The handbook is complemented by an annex containing case studies and good practice examples.

The experiences and insights gained during the development of the handbook formed the basis for the creation of the Capable project's innovative e-learning platform.

### CaPABLE e-Learning Platform

Flexibility and temporal as well as spatial accessibility are among the main advantages of the CaPABLE e-learning platform. Participants can learn anywhere, anytime, while benefiting from the advantages of interactive learning sources, which gather the entirety of the knowledge sought by the learner in one place as much as possible, allowing the learning process to be tailored to individual

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<sup>1</sup> CaPABLE Transnational competence Handbook [https://www.itee.lukasiewicz.gov.pl/images/pliki/Ca-pable/Capable\\_handbook\\_PL.pdf](https://www.itee.lukasiewicz.gov.pl/images/pliki/Ca-pable/Capable_handbook_PL.pdf) ( 15.05.2024)

needs and schedules. The interactivity of this platform enriches the learning process, making it more engaging and interesting, which in turn leads to better assimilation of material and increased motivation for learning. The personalization and individualization of the e-learning platform, unlike traditional forms, offer the possibility of choosing educational content and paths and adjusting the material to one's needs, interests, and proficiency level. The e-learning platform also allows monitoring participants' progress and assessing their achievements. Thanks to the progress tracking system, training managers can monitor the extent to which users assimilate the material and whether they require additional support. Furthermore, the possibility of evaluating results based on a voluntary test allows for effective training evaluation and its effectiveness.

The interactive CaPABLE course is divided into 5 modules consisting of thematically arranged sections<sup>2</sup>:

**Module 1: Legislation and regulations.** This module, treated as an introduction to the issues of energy efficiency and building renovation, focuses on legislative issues in both national and EU contexts, covering basic policies regarding building energy efficiency. It addresses issues from certification systems to informal guidelines on sustainable buildings.

**Module 2:** This part of the course offers expanded material divided into seven units. It introduces the user to energy efficiency standards and closed-loop economy principles in a broader scope than the first module. Topics include methodology, techniques for assessing energy efficiency, Life Cycle Assessment (LCA) issues, renovation valuation methods, and time and cost analysis. The module touches on basic characteristics of thermal and ecological materials but also extensively describes the role and tasks of energy specialists, energy management in buildings, and certification procedures. Users can familiarize themselves with ISO 14001 issues and energy labeling. Each subsection contains links to external interactive additional materials.

**Module 3:** Comprising four parts, this module introduces European funding instruments: strategies, management, and reporting. It discusses cooperation and Development Funds, as well as funds managed directly (Horizon Europe, LIFE, Erasmus+, EPR), and explains systems attracting private sector investments: Energy Performance Contracting (EPC), public-public cooperation (P2P), and public-private partnerships (PPP).

**Module 4: Project management systems.** This module, divided into sections describing basic issues related to innovative energy-saving technologies, digitalization of processes, building software, and the Internet of Things in construction, introduces the user to DNSH, CAM issues, and their significance in the KPO context, also explaining the importance of ISO 50001:2018 standards. In this part, users can also familiarize themselves with investment analysis and evaluation methods.

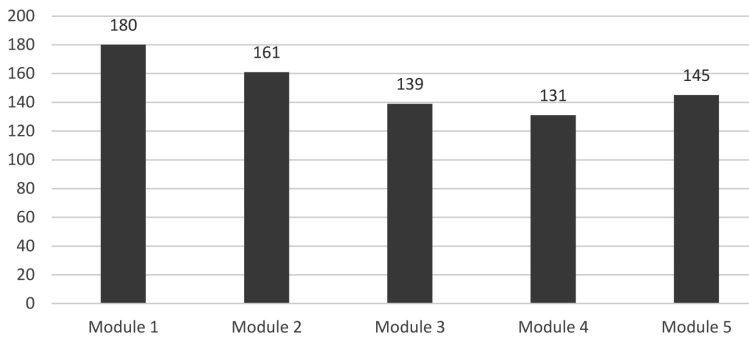
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<sup>2</sup> Capable e-learning platform <https://capable.formedit.it/login/index.php> (20.05.2024)

Module 5: Describes 18 good practices in the field of public building renovation in Europe, along with a detailed analysis and descriptions of actions taken.

### Use of platform content

Since the launch of the platform in March 2024, <https://capable.formedil.it> has recorded 756 unique registrations (completed courses were used for analysis). The available statistics show that, given the freedom to choose which module to register for, the most popular modules are those providing basic knowledge of regulations and those related to renovations and certifications.



**Fig. 3. Participant engagement with individual modules of the Capable e-learning platform. (Number of accesses to individual modules of the capable.formedil.it platform as of 20.06.2024)**

In addition, the level of interest in particular issues varies from country to country.

**Table 1. Number of users of each course by country and interest in the subject. Capable project data**

Country	Module 1: Current legislation and regulations	Module 2: The necessary renovations and certifications	Module 3: Funds and Financing	Module 4: Project management systems	Module 5: Good practices in different European countries projects
ITALY	81	79	73	65	81
POLAND	65	54	49	45	47
SLOVENIA	9	11	9	9	7
GREECE	14	9	5	8	6
OTHER	11	8	3	4	4
TOTAL	180	161	139	131	145
756 PARTICIPANTS – AVERAGE 3,5 MODULE EACH					

In Poland, Greece and Italy, registered participants most often look for information on legislation and regulations.

In Slovenia, it is data on necessary certifications and funding.

From this one can conclude that in terms of awareness of legislation helping to achieve Green Deal goals in construction, there is still a dispersion of sources of knowledge even among those delegated to such tasks and these are data particularly desirable to obtain in one place. Information addressing this problem was included in the project partnership's recommendations to central and local level institutions.

## Recommendations

The project's work will be summarised in recommendations for central and local government, which bring together a range of advice, information and lessons learned from working with representatives of public administrations committed to decarbonising their building stock and construction stakeholders. .

Central authorities play a key role in stimulating energy efficiency and building renovation initiatives. By establishing appropriate regulations, financial measures and support programmes, national governments have the opportunity to promote measures to improve the quality of public infrastructure<sup>3</sup>.

Regional and local authorities play an equally important role in the context of building renovation. Their involvement is crucial for the successful implementation of energy efficiency and building refurbishment measures. Regional and local authorities have the opportunity to take concrete action, such as developing financial support programmes for renovation, regulating energy standards or building public awareness of the benefits of energy-efficient solutions<sup>4</sup>.

The recommendations propose solutions to a number of problems in the contexts of the partner countries, diagnosed during the work of the Capable project.

## Conclusion

The innovativeness of e-learning platforms lies in transforming the way we enhance our competencies, especially in the context of renovating our building resources and addressing climate change and its effects. Flexibility, interactivity, personalization, simultaneous enhancement, and integration of green and digital competencies have made them indispensable tools in the learning process. Successfully implemented by the international consortium, the CaPABLE project combines these advantages

<sup>3</sup> Recommendations for renovation of public buildings for central level [https://www.itee.lukasiewicz.gov.pl/images/pliki/Capable/Rekomendacje\\_dot\\_renowacji\\_budynkw\\_publ\\_poziom\\_centralnyPDF.pdf](https://www.itee.lukasiewicz.gov.pl/images/pliki/Capable/Rekomendacje_dot_renowacji_budynkw_publ_poziom_centralnyPDF.pdf) (28.06.2024)

<sup>4</sup> Recommendations for renovation of public buildings for the local level [https://www.itee.lukasiewicz.gov.pl/images/pliki/Capable/Rekomendacje\\_dot\\_renowacji\\_budynkw\\_publ\\_poziom\\_lokalny\\_PDF.pdf](https://www.itee.lukasiewicz.gov.pl/images/pliki/Capable/Rekomendacje_dot_renowacji_budynkw_publ_poziom_lokalny_PDF.pdf) (28.06.2024)

in the developed training material to effectively strengthen the capacity of public authorities in the renovation of public utility buildings.

Conclusions drawn from the work on the competence handbook, lessons learned from users regarding, among other things, the problems and competence issues of public administration employees involved in the renovation of building stock, have been included in documents containing recommendations for local and central public administration.

It can be inferred from this that despite climate policy being seemingly firmly entrenched at every level of economic activity, issues related to it are only superficially addressed without a deeper understanding of the subject. Individuals tasked with intensive implementation-related tasks seek easily accessible places containing accumulated knowledge necessary for enhancing key competencies. E-learning platforms meet these criteria, characterized by unlimited accessibility, interactivity, and the ability to verify acquired knowledge, without incurring costs and saving time. In summary, innovative forms of education, such as the CaPABLE training platform co-financed by the European Union under the Erasmus+ program, are playing an increasingly significant role in the development of competencies and professional qualifications. The platform offers many benefits for both learners and institutions seeking ways to further educate their employees in the broad field of ecology, with a focus on decarbonizing buildings, which has become a challenge of the 21st century. Therefore, it can be expected that such competency enhancement forms will be increasingly widely used in personnel training in the future.

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