



Guidelines on stakeholder engagement and stimulating training demand

Deliverable 5.1 of the NZEB ROADSHOW project

Responsible partner: Pro-NZEB

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1. EXECUTIVE SUMMARY

The main goal of nZEB Roadshow project is to stimulate the market demand for energy efficiency related skills of different target groups of people, both construction workers and specialists in respective project markets. This goal will be achieved by connecting and activating different groups of stakeholders and action groups (different from stakeholders), as they are found and described by each market partners (D2.1 and D2.2).

There are several ways to develop pro-active attitudes and starting developing new courses for the local stakeholders. To mention only few, the nZEB project partners will find ways (and exploit them even after the project implementation period) to improve the interest in nZEB construction segment, will organize practical and theoretical course in various locations, with a multitude of stakeholders mixed groups, all these actions only addressing to improvement the good practices in the specific energy efficiency activities and building a stronger reputation of the construction profession, as it is considered a very important one in current European context.

The Deliverable D5.1, in connection with activities and outcomes developed in Work Package 2 (including deliverables D2.1 and D2.2) will identify and present the paths to pro-engage the stakeholders in each project country, taking in consideration the personal experience of partners and conjectural circumstances in current nZEB market developments.

As identified in WP2, the actions in D5.1 will address (in coordination with the action plans included in marketing strategies for each country) the activities to the central and local administrations in charge with nZEB legal implementation norms and regulations, various groups of so called "end-users"(as the owners of the buildings, property associations, real estate agents and companies, construction companies and contractors) but also knowledge providers, architects and designers , energy auditors, media etc.

2. INTRODUCTION

The nZEB Roadshow project will draw a new and innovative set of actions in the construction markets and it is intended to have a real impact in improving the demand of nZEB constructions, especially in countries in Eastern Europe but not only.

The initial steps in improving the current use of innovative capacity building schemes has been realized when a network of Building Knowledge HUBS (BKHs) has been created (Train - To -nZEB Project, Fit-To-nZEB project, www.fit-to-nzeb.com). As planned, the nZEB Roadshow project is intending to increase the current capacities of existing BKHs, network of VET providers and other target groups, specific for each country partner in the project.

The specific outputs in the project will have high exploitation potential, not only during the implementation of the projects, but also after project termination. The specific marketing strategies (based on the process of mapping all important target groups) and the engagement of the stakeholders in each country will depend very much on the sustainability of actions designed by project partners, specific in each country.

Relevant stakeholders are involved in the co-creation of strategies after the termination of the project. These stakeholders, during different events and bringing their specific knowledge on the nZEB market, will make sure that the exploitation strategy will be focused on end-users needs and will guide mainly the providers of training courses to develop custom made actions, varying from one country to another.

3. CONCEPTS AND DEFINITIONS

In this chapter we will define few categories of concepts, for better understanding of the terms, actions and relevant information used in this deliverable.

3.01 STAKEHOLDERS

In the current concept of the nZEB Roadshow project, *stakeholders* can be defined as a group of individuals or organizations which have an interest in a product or service (or in more general terms, an “outcome”).

The *engaged* stakeholders also they take actions in fulfilling an objective or a market need.

There are various stakeholders, depending on the angle you can look to them.

In society, in general a project manager or a leader of a company or project, takes all responsibility in managing people, budgets or actions, for the excellent outputs of that organization or company. Many times, a person or a team cannot do the whole job, without considering (other) stakeholders in their actions, as part of their market success. Therefore, it is considered very relevant at this point, to take the decision to transfer responsibilities and activities from a “project manager” to an “engagement stakeholder group management”, each of them with specific and complementary role in planning and execution.

In case of development of *stakeholders engagement* project management (delivered mostly in a final document called *stakeholders engagement plan*) we admit the following steps in the process:

1. Stakeholders mapping , which is the base for the identification of organizations and understanding their role on a respective market.(covered in the nZEB project in Task 2.1)
2. Activate stakeholders participation, as an initial step in determining which are their ways of acting on a market.
3. Gathering all their information and plan the stakeholders engagement. The output of this phase is represented by the *stakeholders engagement plan*.
4. Monitoring the implementation of actions as designed in the plan.

3.02 TARGET GROUPS

As defined in the vision of nZEB Roadshow project proposal, the “target groups” are the *response of a market goal*, individuals or (groups of) organizations having (relatively) the same scope in a market: to provide a final product or service.

In relation with the stakeholders, they are the ones to be addressed in the nZEB Roadshow trainings and VET services. The stakeholders groups is much bigger category and are the ones to influence, support and possible deliver such services towards the target groups.

There are differences in considering the importance of the target groups in each of the project countries. The criteria of such judgments , in each country, were defined by mainly 2 factor categories:

1.*Cultural factor*, also taking in discussion the geographical position on the map. For example, there are some similarities between Italy and Croatian approach to target groups, in each of their markets.

2.*Stage of development of the nZEB market*. Here we clearly observe a lot of similarities in actions and planning between stakeholders but also action groups in Bulgaria and Romania.

There are 10 target groups as defined by the nZEB Roadshow project proposal. These groups are presented below, with a summary of their own expectations from nZEB Roadshow project:

Name of the target group	Position in the local markets of trainings
1.Users of training courses(construction workers, specialists, home owners, etc.)	Interest in nZEB concept by demonstrating demand for nZEB (energy savings, lowering invoices, increasing market share for specialists, etc.) on the local markets. Results of trainings will have impact on the quality of their work and avoiding of costly mistakes.(designers, constructors)
2.Public authorities	Interested how energy efficiency projects implementation can bring benefits to the communities, on top of optimizing costs and

	mitigating climate change effects.
3.Young people	Interested in career development, in conjunction with high-tech environment and modern lifestyle including environment protection.
4.Producers and suppliers of building materials and technologies	Interested in enlarging their market share and profits.
5.Highly qualified experts(incl. architects, designers, energy auditors)	Interested in gaining new innovative knowledge of best practices and materials; building up of their local /regional market share.
6.Knowledge providers	Selling courses and specialized trainings.
7.Real estate players	Improving the value of their offering and services and providing better advice to their clients (home owners).
8.Financial institutions	Interested in providing (new market) services for nZEBs contractors and clients; driver for high-quality renovations, teaming with solvent clients and proven quality minimizing the risk.
9. NGOs	Have the opportunity to stimulate reduction of energy consumptions and GHG emissions savings by both political actions and application of innovative energy saving concepts in buildings.
10.The Media	Interested in consumer, trendy and innovative topics on the construction and energy markets.

Table 1: Target Groups in nZEB Roadshow project proposal

3.03 TYPE/LEVEL OF ACTIVITIES. ENGAGEMENT

There are different levels when talking, planning and implementing stakeholders engagement plan. All EU (co)funded and national projects place the stakeholders engagement at the center of their activities.




- Levels within the project activities/during /after finishing project

The timeframe is one criteria taken in consideration when planning the engagement. Usually, a lot of activities can be planned and executed during the nZEB Roadshow project implementation period. But it is equal important to maintain the rhythm and desire for engagement after the project termination. This is a critical aspect to be discussed during the project, as it is anticipated that many project partners will give lower importance to the exploitation results after the project is finished.

- Engagement in each country

All nZEB Project partners were engaged also in other nZEB topic related aspects during the last period. In Romania for example, the nZEB activities started in 2011, when the first assessment of energy efficiency skills on the local market has been performed. As the market pressure for the nZEB concept implementation raised in last years, the Romanian partners decided to take part in many of such EU (co)financed projects in relation with nZEB. Several of them are listed as follows: BuildUpSkills, Train-To-nZEB, Fit-To-nZEB, etc. More information about the projects can be found next in the report.

The presentation of Train-To-nZEB project is shown in the next box:

Project name	Train-To-nZEB	
No of partners:		
	11 Partners	7 Countries
Duration	3 years (2016-2019)	
Objective: Goal:	Setting a network of Building Knowledge HUBs Its goal is to improve the knowledge and skills in the construction sector and to provide practical trainings, demonstrations and comprehensive consulting services for design and construction of nZEB.	
Website:	www.train-to-nzeb.com	

- Engagement between countries/ teams

The above Train-To-nZEB project shows a previous combination of partners and knowledge sharing during the period of implementation. That gave to some partners enough initiative and strength to continue the work in their Building Knowledge HUBs (BKHs are with current project partners in Sofia, Bulgaria and Bucharest, Romania, among other in countries like Ukraine, Czechia, etc.) and to offer assistance in other cities for setting up their “one-stop-shop” offices or BKHs.

During the implementation period of nZEB Roadshow project, there were mentioned common activities between Croatian and Italian partners, as well as Bulgarian and Romanian ones (regions along the borders). During pandemic period, sadly these activities were postponed for a later period. A suggested common activity between Romanian and Bulgarian project teams will be the organization of a common event in region Giurgiu (Romania) Ruse (Bulgaria).

- Engagement between projects “nZEB”. nZEB Roadshow sister Projects

In all current and past projects, the stakeholders engagement has been an important topic in development of each project activities. Also, most of the nZEB Roadshow project partners are involved for the moment in several parallel nZEB/ energy efficiency projects, combining activities on projects in the same period of time.

Major topics in the respective projects are related with technical and technological outputs. A major engagement tool to relate with end-users always has been the *local/regional consultations* activity. Groups of 10-20 participants, gathered together with specialists (in project teams or outside projects) in order to be informed, activate and further disseminate in various other activities, related with nZEB (concept in general, knowledge and skills in particular).

The below table shows the previous project partners projects, where the “nZEB’ topic or related energy efficiency topic has been connected with stakeholders involvement/ engagement in various forms. In the table, it has been underlined the common projects of several nZEBRoadshow partners, active in co-creation and implementation of stakeholders engagement strategies, in conformity with tasks in the respective projects.

nZEB Roadshow Project Countries	Project Acronym	Details
Bulgaria	-nZEB Ready -BusGoCircular -BeSMART -SMAFIN -EN-TRAK -EXCITE -CONGREGATE -MEMS -OurBuildings -iBROAD2EPC -U-CERT -CrossCERT -OutPHit -Re-MODULLEES	https://cordis.europa.eu/project/id/101033733 https://cordis.europa.eu/project/id/101033740 https://www.besmartproject.eu www.smafin.eu www.en-track.eu www.excite-project.eu https://www.euki.de/en/euki-projects/congregate/ - - https://ibroad-project.eu/ www.u-certproject.eu https://cordis.europa.eu/project/id/101033778 www.outphit.eu/eng www.re-modulees.eu
Croatia	-BIMzeED -CONGREGATE -BusGoCircular -National Training Center nZEB	https://bimzeed.eu/ https://www.euki.de/en/euki-projects/congregate/ http://www.busgocircular.eu/ https://eeagrants.org/archive/2014-2021/projects/HR-ENERGY-0001
Greece	RINNO OutPHit	www.rinno-h2020.eu www.outphit.eu/eng
Italy	-	-
Romania	-BuildUp Skills ROBUST -BuildUpSkills - Qualishell -Train-to-nZEB -Fit-to-nZEB -iBRoad -ZEBRA2020 -SMART4nZEB -CONGREGATE	www.iee-robust.ro http://www.iee-robust.ro/qualishell/index.php www.train-to-nzeb.com www.fit-to-nzeb.com https://ibroad-project.eu/ http://www.zebra2020.eu/ - https://www.euki.de/en/euki-projects/congregate/

Table 2: nZEB Roadshow sister projects, underlining common partners projects

3.04 Related content important to stakeholders engagement(plan)

A.Stakeholders engagement during and after termination of a project

The period set for one project as implementation period it is a major advantage for any stakeholders engagement plan. All project partners, during the project implementation, can find new partners, develop good planning and take first actions.

But efforts should not stop here. The stakeholders engagement plans (or activities) which will not stop when the project is ending, are the most successful one. The view co-created from up to bottom during the project implementation period must be continued for the integral success of the respective project.(especially in new construction concepts as nZEB).

Continued engagement is essential after the termination of the nZEB Roadshow project(individual, in each market or in combined activities).

B.Public consultations

During the nZEB Roadshow implementation period, the consultations were considered with an important role in reaching out the engagement level appropriate to the project concept. All partners in all countries took all offered opportunities(designed in the current project but also in sister relevant projects) in such consultations.

For local consultations to be as effective as possible, the project partners created their own cultural system in which they consider the following:

- Local consultations to be organized in local language.
- Relevant information to be to be send by email to listed initial stakeholders, in order to seek back relevant information during the consultation process.
- Ask for feedback, as a tool to organize the next consultation in a much better way, with better output for the project.

C. Gender

While gender inequality is a major social subject these days, in nZEB Roadshow project (and subsecventially in all public meetings and plans) we considered in all activities the women

as an important agents of change, with impressive impact on the current life . Efforts made by women in each project market, during the activities in the nZEB Roadshow project were recognized by all partners .

The recognition of the efforts to combat the nZEB knowledge current gap in our project partners markets, it is in line with the European efforts reflected in Agenda 2030 of SDGs Implementation.

D. Transparency and access to information

The nZEB Roadshow project team considers that access to information in an accurate , easy and timely way it is critical for the development of a *stakeholders engagement plan*. The transparency of activities in the plan, must be always supported with appropriate documentation referring to all aspects of the engagement plan.

3.05 Stakeholders involvement in nZEB Roadshow project

The realization of engagement in various activities will go thru an intermediate phase which in our project terms is called “involvement” This phase consist in informing the potential mapped stakeholders in one region about project goals and objectives, getting at the end their approval for further engagement.

In nZEB Roadshow project, each partner responsible with stakeholders engagement plan implementation in each country, has the liberty to choose the significant actions for each country(or region where the products will be disseminated and later exploited).

Besides the co-creation of stakeholders engagement plan(SEP) , in accordance with each country priorities, regulations and needs, the project partners took immediate opportunities to engage in distinctive activities along the project goals.

In Bulgaria, one of the major product development has been realized by organizing nZEB Weeks starting summer 2021. The presence of Bulgarian nZEB Roadshow team in Smolyan in a larger “Sustainable Heating and Construction Days” event, gave the opportunity to local administration, construction companies, investors and building owners to get a specialist advice on nZEB concept.



Picture 1: nZEB Roadshow Bulgaria, Smolyan, 2021

In Croatia, the starting approach was different. Having the opportunity of showing an impressive nZEB conceptualized technical equipment (named and branded locally as #MUZA), the Croatian nZEB Roadshow colleagues created on their side an impressive list of actions in the summer- autumn 2021. The market reaction has been accordingly and will create the premises of immense impact on the Croatian market.



Picture 2: nZEB Roadshow Croatia, October 2021.

In Greece, the nZEB weeks started in summer 2021 despite the extreme heat and climate events devastating this country .The Greek colleagues in nZEB Roadshow project offered presentations and specialized advice in September 2021, in Nafplio.The following picture shows a detail of such activity.



Picture 3: Sample nZEB Roadshow activity in Napflio, Greece, Summer 2021.

Italian colleagues from Zephyr started to organize nZEB Weeks in the summer of 2021, in accordance with their SEP and marketing strategy. One of the first activities took the form of specialized consultancy and design service, together with local partners. One sample of the activity is shown below picture.



Picture 4: Italian nZEB Roadshow activity, August 2021.

Romanian team started to organize nZEB Weeks by engaging the mapped stakeholders in Bucharest and South Eastern Romania. Organizations from more than 5 counties have been invited in June 2021 in the first nZEB week planned for the Bucharest area. The local partners had an immense contribution to the success of this event(among them a Bucharest technical Construction University, a Skills academy and several of the Cluster

pRO-nZEB members). An image from the first day of the week in Bucharest, Romania is shown below.



Picture 5: Introduction nZEB Week Bucharest, INCDC Urban-INCERC, Bucharest, June 2021

In following chapters, each country partner is presenting the own concept of stakeholders engagement process. At the end of the report, each country is presenting their own SEP, in conformity with project goals and market conditions.

Note: The present report and each of the SEP under the Annexes of this report might be changed or adapted in the implementation period of the nZEB Roadshow project. The pandemic factor could be one of the major indicators of changes.

4 Stakeholders involvement in nZEB Roadshow project development

4.1. Bulgaria

The Bulgarian market for nZEBs and energy-efficient solutions as a whole is underdeveloped and the governmental measures to boost this sector are insufficient. The lack of incentives for the end-users and/or producers to perform deep energy retrofit, the scarce quality information, the lack of quality supply of energy efficient solutions and the low motivation of key market players to invest in such solutions are the key barriers for market development. These trends affect negatively the demand for nZEB-related trainings as well as the supply of educational services, which are scarce and unsystematic. The total size of the market for paid courses is under 150 trainees per year, whereas the estimated growth potential is extremely high (growing at least by factor 4 until 2022), depending on the market demand for nZEBs and on the imposed regulations regarding both energy performance of buildings and continuous professional development in the construction sector. The professional high schools of architecture and construction in the country offer professional qualification only for 2nd and 3rd EQF-level, as specialization on nZEBs is unavailable, despite the recent introduction of a specific discipline “Energy efficient and ecological construction” and several dispersed units of learning outcomes within other disciplines. The Masters’ programmes offered by the universities are limited and do not

attract attention from potential students. Another challenge is the fact that many of the trainings in this field are EU funded and are offered for free.

A huge challenge for the development of this market is the fact that the renovation of the building stock since 2015 is 100% funded by the government under the National Programme for Energy Efficiency of Multi-Family Residential Buildings, executing projects targeting the highly unambitious energy class C (up to 191 kWh/m²/a for residential buildings). This makes both citizens and administration inactive, limits the free market development and blurs the responsibility for control and quality execution of projects. The homeowners got used to the “free” energy efficiency measures and the current market demand reflects the notion “the state is going to see to my private living comfort”. The municipalities, on their side, are waiting for the EU grants, as the level of subsidy for public projects under “Regions in Growth” and similar programmes is also often reaching 100% – they are not trying to attract different forms of investment to renovate the old building stock. The private investments are extremely low, and market actors are already used to and dependent on EU funding. There are no alternative funding schemes for nZEB projects on the market and there is only one financial product recently developed – a low-interest credit scheme for owners of individual houses, again only targeting energy class C and offered in the form of regular consumer loan.

At the same time, the first years of implementation of the National Programme for Energy Efficiency of Multi-Family Residential Buildings evidenced increased interest in training for building renovation, even if for a limited time. Regionally, the construction service providers had insufficient capacity to address the increased demand, which resulted in shortage of qualified skills and lower quality of the end result. This negative trend destroys the public trust in the energy-efficiency measures as a whole. The supply of local training services was insufficient, and despite several promising initiatives, with the depletion of the public resources and the start of the actual construction activities in the selected 2022 buildings, the interest to the training courses waned. Thus, with the announcement that the programme stops accepting applications in 2017, the emerging training market was subjected to another very negative market trend.

Similar processes are evidenced regarding public projects, as even if there is a motivated municipality, determined to make their region “greener”, the supply of quality trainings and energy-efficient construction solutions is insufficient. Public procurement is lower-price-driven, and usually the local administrations are trying to execute more energy efficiency projects with less resources and apply predominantly the lower-price criteria during the assessment of the projects. In turn, the construction service providers are always striving to propose a “cheaper” renovation, which inevitably affects the quality of the executed projects and the actual benefits of the energy efficiency measures.

At the same time, according to the Bulgarian Long-term renovation strategy, 65% of the residential and 35% of the non-residential buildings need to be renovated until 2050. Most of the buildings in Bulgaria are built between 1959 and 1987, and the vast majority is largely inefficient, as for example in the residential sector, The lowest class buildings (E, F and G) account for 91% of the built area, with total floor area targeted for renovation equaling

184 million sq. m. The strategy defines the cost optimal levels of renovation as being on the border between classes A and B (meaning significant increase of the minimum requirements), and specifically declares the importance for improvement and intensification of the training and educational services and the communication with the end users to achieve these targets.

Irrespective of this, the latest accessible draft of the National Recovery and Resilience Plan and the draft of the new “Development of the Regions” programme both envisage 100% grant funding schemes for the renovation of residential buildings, which, if accepted again, would not lead anywhere near the described targets, and what is worse, would be detrimental for the market development. Little is done for establishing alternative funding schemes and implementation of measures/incentives to stimulate the nZEBs market as considering new buildings. The funds which are planned to be allocated to energy efficiency in buildings amount to around EUR 1 billion, which, if used properly, is a significant allocation for a country with the size and needs of Bulgaria. However, the proper utilization is related to using the potential of the public resources to leverage private investment and engage the homeowners in the renovation campaign; however, this does not seem to be happening. Again, no investment is planned for training and communication at that stage, although in the last weeks there are some positive signals in this direction coming from the new caretaker government, working on the next draft of the Recovery and Resilience Plan.

Taking into account these unfavorable market trends, the most important for the Bulgarian partners is to advocate for a radical transformation of the renovation policies, and on the same time, to stimulate the demand for actual nZEBs and energy efficient solutions at all market levels, so that the market trends also pull up the policy development process. The EU strategic documents impose high energy efficiency targets for all EU countries until 2050 and the Bulgarian government has to comply with them. The environmental and conscious living communities are also gaining momentum; therefore, the energy efficiency market growth is inevitable in the nearest future. However, the market demand cannot be satisfied without well trained construction professionals, strong and up-to-date educational services and nZEB conscious opinion leaders.

In that respect, the **stakeholders’ engagement campaign will unfold in three separate dimensions**, taking into account the described developments in the external environment and the needs of the identified stakeholder’s groups: 1) policy advocacy; 2) continuous promotion of nZEB and nZEB-level retrofitting best practices and solutions; and 3) targeted marketing campaigns organized around the nZEB roadshow events. The campaign will combine national and local level of interventions, as while the policy developments regarding renovation and nZEB support programmes would be crucial to stimulate interest to local events, the roadshows themselves have the potential to provide excellent argumentation for the policy advocacy efforts.

1) Policy advocacy

The policy advocacy approach is targeted at policy makers and public authorities at national and regional level. Partners will leverage the potential of existing partnerships with public

authorities/networks, such as EcoEnergy, Burgas municipality and Gabrovo municipality and SEDA – promoters of energy efficiency policies, exerting huge influential power on other stakeholders in this group and providing excellent example on successfully implemented projects on retrofitting and energy efficiency solutions. Representatives of this target groups will be actively involved in the roadshow events and will be invited to participate in relevant conferences and roundtables. They will be suggested participation in the public consultation procedures regarding the Recovery and Resilience Plan and other related support programmes. Partners will strive to participate in consultations on actual renovation project of public authorities and support procurement service. They will also explore opportunities to apply on-site training in municipal renovation projects.

The engagement strategy will use the power of collaborators and supporters such as professional chambers, educational establishments and producers and distributors to convince and motivate public authorities on the need to take active measures and introduce instruments to boost the energy efficiency market development. Partners will also exploit synergies with other ongoing initiatives as BeSMART, SMAFIN at national level and EXCITE at local, all aimed at to stimulate market demand and effective energy efficiency policies, including introduction of alternative funding schemes. In addition, they will also strive to relate renovation to sensitive social issues as energy poverty and air quality and utilize results from social studies on these topics confirming the need of deep energy retrofitting, undertaken by ongoing projects as ComAct, EnergyMeasures and CONGREGATE.

Appropriate media outlets and press work will be used to promote the need to support training and education activities, currently neglected in the national strategic documents. Tailor-made social media campaigns will also be employed, including podcasts with representatives of the group, in order to influence and motivate these stakeholders on national level.

2) Continuous promotion of nZEB and nZEB-level retrofitting best practices and solutions

The continuous promotion of nZEB and nZEB-level retrofitting best practices and solutions is targeted to influencers & campaigners, and, to a certain extent, to public authorities. One of the core objectives of this approach is to promote actual new builds and renovation projects targeting high energy efficiency standards via the websites and social media. The engagement campaigns will largely use the contribution and input of collaborators and supporters as producers and distributors, construction companies, professional chambers and educational establishments. Personal stories of nZEB investors and inhabitants will be shared via different channels – selected media, websites, social media and podcasts. The innovative solutions from nZEB Roadshow partners and supporters will also be promoted. Partners will strive to explain the principles of nZEBs via various online content, including training courses for non-specialists. They will provide monitoring results from various nZEB projects, emphasizing on the benefits and the improved living comfort and health. Direct examples of construction failures, especially in relation to energy efficiency, will also be shared to show the alternative losses of badly planned and executed nZEB projects.

Partners will also explore the opportunities of partnerships with other EU-funded initiatives. They will promote nZEB best practices, using the websites of related projects, as e.g. BeSMART, reMODULEES, OutPHit (as applicable), and vice versa. The outputs from these projects - both examples of outstanding building projects and of support tools, will also be used to feed the communication campaign. Through the results and connections of projects targeted at VET, such as BUSLeague and INSTRUCT, the campaign will support the development of continuous professional development system for nZEB professionals focusing on the main pillars of sustainable construction.

3) Targeted marketing campaigns organized around the nZEB roadshow events

While targeting the active involvement of influencers & campaigners, each roadshow will be organized around collaborations with specific target group(s) displaying its specific added value for the end users. Thus, the planned roadshows envisage the following engagements:

- **Pazardzhik, 2-4/09/2021:** engagement of the educational sector at secondary level enabled by the support of the suppliers
- **Smolyan, 23-25/09/2021:** engagement of the local authority, young people and individual homeowners based on air quality and energy poverty advancements
- **Sofia, Spring 2022** (together with Construction and Architecture week, date tbd): engagement of professional chambers and associations and product suppliers in order to strengthen the support for the 2022 roadshows
- **Gabrovo, 19-22/05/2022:** bringing the construction sector and the local authorities together, promoting advancement and piloting of innovative technologies and solutions in municipal projects
- **Burgas, 09-11/06/2022:** national nZEB conference bringing together policy makers, construction industry, professional chambers and energy experts to speed up and optimize the renovation policies
- **Ruse/Varna, 29.09-01.10.2022:** roadshow event targeted to the higher educational sector, promoting the advancement and innovation in the training contents, the new online tools and the development of continuous professional development system
- **Sofia, Spring 2023:** final event targeting all major stakeholders and formulating recommendations to the policy making, business development and improvement of the vocational training and education system

For each roadshow, a systematic stakeholders' engagement campaign will be conducted, utilizing the most suitable channels for each target group. The stable elements in each case would be:

- Full web coverage, including targeted social media positioning
- Active participation of target groups as content providers, not as passive users
- Production and dissemination of e-promotional materials
- Podcasts/interviews with key actors
- Livestreaming of key activities
- Connections and synergies with related external events and initiatives
- Involvement of local branches of the professional chambers and associations
- Active press work involving the channels of the hosting local authorities

- Attractive demonstrations for the end users organized either by the project partners or by the suppliers involved in the fairs
- Training courses including practical training experience and leading to informal certification
- Client consultations
- Surveys and interviews with participants

The detailed Stakeholders Engagement Plan (SEP) for Bulgaria is presented in **Annex 7.1: SEP for Bulgaria**. Column “Type of engagement” provides an exhaustive list of activities, tools and instruments for each stakeholder group to be used before, during and after the nZEB weeks, depending on the desired engagement level. Some the activities are promotional, such as the social media campaigns, aimed at awareness raising, sharing quality information and attract visitors during the nZEB weeks. Others are directly related to the involvement and collaboration with the stakeholders or aimed at creating synergies and partnerships. Partners might use a single activity or a combination of the proposed activities throughout the course of events’ planning, organization, implementation and evaluation. For easier reference to other strategic documents of the project (Business Model and National Marketing Strategy) the stakeholders groups are following the same chronological order, in particularly:

- End users, young people and real estate
- Media
- Producers and Suppliers of nZEB-compatible products and materials & DIY stores
- Professional chambers and associations & Professional service providers
- Education services
- Public authorities

Note: The SEP for Bulgaria is presented in Annex 7.1 attached to this report.

4.2 Croatia

Currently, Croatian construction sector is strongly affected by series of earthquakes and corona pandemic. A strong earthquake (magnitude 5.5) has shaken the Croatian capital, Zagreb, on 22 March 2020 causing major damage to buildings in the old city center and city neighborhoods nearby epicenter. The aftermath showed that the earthquake resulted in damage to about 26,000 building in the City of Zagreb, Krapina-Zagorje County and Zagreb County; whereby the total cost of the earthquake is estimated at 11.301 billion EUR. Estimates of damage and losses have been grouped into five main sectors: housing, health, education, culture and cultural heritage, and business. According to assessment performed by Government of the Republic of Croatia [1], a total of 562,048 square meters will need to be rebuilt completely, while 17,594,988 square meters will need to be rehabilitated due to light or moderate earthquake damage. **The reconstruction process should adhere to the principles of build back better and energy efficiency.** The overall vision of recovery will emphasize the use of sustainable and environmentally-friendly materials, taking due note to the circular economy and climate change. **Long-term needs focus on the systematic**

recovery of the historic urban center, improvement of resilience to earthquakes and other risks, and the application of energy efficiency measures on fixed cultural heritage [1].

On 29 December 2020, a devastating earthquake (magnitude 6.2) has hit the city of Petrinja (approx. 60 km southeast of the capital of Zagreb), causing fatality and severe damages in cities Glina, Petrinja and Sisak, as well as nearby areas. Old city centers in Glina and Petrinja are mostly destroyed, while rural areas around are characterized by family houses which are significantly damaged and/or completely unsafe for further use. Assessment showed that the total cost of the earthquake in Sisak-Moslavina county, Karlovac County and Zagreb County is around 5,5 billion EUR, of which the cities and villages in Sisak-Moslavina County suffered the most damage. Unlike the Zagreb earthquake, this earthquake in Petrinja forced people to leave their houses and to temporarily accommodate in container settlements, military base, sport halls, etc. At the moment, 15 container settlements are open and around 2000 containers, camp houses and other temporary accommodations are in function [2]. A high priority is to normalize life in Sisak-Moslavina County and return people to their homes, which requires the reconstruction of damaged infrastructure and buildings, but also constructing completely new buildings.

Large-scale consequences of earthquakes in Zagreb and Petrinja triggered increased demand on construction market for professionals (engineers/ architects), workers and construction products, but particularly for construction workers. Increased employment was shown in construction sector despite the Covid'19 pandemic and also compared to 2019 situation. Complexity of integrated renovation (seismic and energy retrofitting) and demand for realizing large number of new buildings on short-time basis, require that relevant stakeholders have adequate level of knowledge and skills in the field of energy efficiency, and more specifically nearly zero energy buildings.

It is estimated that 100,000 workers a year will be needed only to renovate Zagreb [3], not counting construction workers needed for renovation and reconstruction of Sisak-Moslavina County. It needs to be highlighted that these are only earthquake related renovation project. When counting other investment projects, the demand for construction workers is significantly higher.

Analysis of the housing stock, conducted for the purposes of the Long-Term Strategy for the Renovation of the Building Stock of the Republic of Croatia by 2050, showed that in Croatia there is almost 90 000 multi-apartment buildings and over 855 000 family houses. Analyses showed that in this ten-year period (2020 – 2030) Croatia must renovate about 18 million m² of residential buildings to achieve renovation rate of 2%. More precisely, national plan is to gradually increase renovation rate from 1% to 3% which should be achieved in 2030. Afterwards, the same renovation rate should be maintained for the next 20 years, so that by 2050 Croatian housing stock will be highly efficient and decarbonized. Total investments in the energy renovation of the housing sector by the end of 2030 are estimated to over 44 billion HRK (approx. 5,9 billion EUR) [4].

It is evident that even without earthquake related renovation projects, Croatia is facing a great challenges and serious lack of construction workers. This problem is mostly solved by

importing foreign workers from countries outside the EU (Kosovo, Albania, Ukraine, Nepal, India, etc.). In 2020 about 28,000 construction workers were imported, which is more than 80 % of the approved quota for the import of workers [5]. The imported workforce usually lacks the necessary skills and knowledge for deep energy renovation and nearly zero energy buildings. Except by importing and training foreign workforce, one of the key solutions for increased demand is prequalification/ training of available national workforce. Therefore, it can be concluded that in Croatia there will a strong construction market demand for training activities as soon as renovation kicks off, which will be realized thanks to the financial support of World Bank and EU funds.

Additionally, the Croatian Government adopted the Proposal of the National Recovery and Resilience Plan 2021–2026 which comprises out of three components within the reform areas one of which is Building renovation initiative (total investment value 5.95 billion HRK) [6].

Such extensive energy renovation and construction of new buildings in nZEB standard cannot be realized without competent designers, site engineers, supervision engineers, project managers, etc. Professionals are another specific stakeholder group that will be in need for tailored training activities. This was also recognized in the National recovery and resilience plan 2021-2026 where special attention was given to training related to energy efficiency and also in energy renovation of heritage buildings.

The first step in developing an effective engagement strategy was stakeholder groups mapping performed in Deliverable 2.1. Relevant stakeholders in each stakeholder group were identified and prioritized, thus providing solid base for stakeholder engagement plan (SEP). Stakeholder database is a living document, and it is regularly monitored, reviewed and updated by UNIZAG throughout all stages of project implementation. Thus, developed SEP contains larger number of stakeholders compared to original stakeholder map analysis (Deliverable 2.1). Engagement strategy is developed in relation to national marketing strategy and business model canvas.

Since there are various issues that are likely to concern different stakeholders and so different types of stakeholder have been grouped based on their needs and expectations in relation to the project:

1. Relevant government authorities, ministries, and public institutions
2. Interested non-governmental organizations
3. End users & Educational providers
4. Professionals – specialists (designers, architects, engineers), professional chambers & associations
5. Professionals – producers, construction companies, real estate developers
6. Media – general and specialized

Currently, a total of 143 stakeholders were identified and their grouping is shown in Table 2 in SEP.

Through the effective stakeholder engagement, it is expected that, among other objectives, it will be achieved:

- Energy efficiency campaigns with emphasis on nZEB – raising the awareness among general public (private investors, young people, children)
- Building the capacity among professionals and workers – training and consultation activities
- Support policy development or policy implementation

Detailed overview of expected potential outcomes (benefits) from stakeholders engagement is available in Deliverable D2.2.

Engagement is carefully tailored not just depending on stakeholder group, but also in relation to individual stakeholder influence, indication of interest, regional and local socio-economic conditions. It was also important to understand how each stakeholder may be affected, so the engagement is tailored to inform them and understand their views and concerns in an appropriate manner. Therefore, engagement could either be a single event (e.g. nZEB week or client consultations) or take place within a standing dialogue mechanism such as Expert Committee for preparation and monitoring of the implementation of regulations in the field of energy efficiency in buildings (established by Ministry of Physical Planning, Construction and State Assets).

Detailed SEP for Croatia with listed engagement tools/ techniques foreseen to build relationships with stakeholders, gather information from stakeholders, consult and collaborate with stakeholders, and disseminate information to stakeholders is presented in Table 1.

As part of this process, it was particularly important to identify individuals and groups who may find it more difficult to participate and those who may be differentially affected by the project because of their marginalized or vulnerable status. In Croatian national and geographical context, these are representatives of the general public (layman), such as elderly, young people, children, private persons willing to invest in retrofitting or buying real estate, whereas particularly ones living in rural area. We consider it extremely important to ensure them access to information, and furthermore present them information in a clear and easily understandable manner. It is crucial to provide them possibility to get involved. Building stakeholders capacity to engage will be realized by coming to their doorsteps through roadshow events “nZEB days/weeks” (consultation centers, gamification, etc.), media campaigns at local and national level, online portals focused specifically on elderly (e.g. mirovina.hr), youth (e.g. srednja.hr) or everyone involved or interested in construction sector (e.g. baustela.hr).

As it can be seen from Table 1, a range of engagement methods/ tools/ techniques are foreseen. The particular method/ tool/ technique chosen depend on whether we wish to inform, consult, involve, collaborate and/ or empower stakeholders, i.e. it depends on desired level of stakeholder’s engagement. As the project evolves, other stakeholder groups may be identified and engaged.

NOTE: The SEP for Croatia is presented in the Annex 7.2 attached to this report.

4.3 Greece

Greece went through a fully-fledged economic and social crisis during the past decade, one whose effects are still felt. Although the country is considered to be in recovery, the situation is still fragile, especially considering the impact of the COVID-19 pandemic.

During the crisis, many highly qualified technicians and engineers left the country in search of better employment opportunities, while others were forced to switch occupation due to the crash of the construction market. The situation for those that did not or could not leave the country was all but stagnant. Many graduating engineers and other technicians just finishing their training were unable to find employment relevant to their skills, and are thus lacking in experience and specialization. Due to these issues, now that the construction market is getting back on track there is a distinct lack of qualified personnel.

Another inherent issue of the Greek market is that neither aspiring engineers in universities, nor technicians in trade schools receive training in NZEB buildings. Furthermore, NZEB buildings are still a fringe field in construction and largely ignored by the relevant Technical Chambers.

In line with the EU's and Greece's goals for energy efficiency and resilience in buildings, several upcoming high profile construction and development projects in Athens and all over Greece are marketed as sustainable and "green". The actualization of these projects will require highly trained personnel and thus it is expected that the demand for relevant training activities will rise.

The total number of identified stakeholders in Greece is 127 stakeholders, as most of them fall under the category of producers and suppliers of building materials, components, and systems followed by professional chambers and individual designers. Education service providers (mainly universities) and municipalities are the other well represented groups, which demonstrates the expected set-up of the local coalitions for the organization of the. The other groups are equally represented, while high schools and VET providers have just one actor identified, which may pose a challenge for some of the activities regarding young people. Based on the stakeholder analysis, the most important groups identified are:

1. Producers and suppliers
2. Professional Chambers and Designers
3. Construction Sector Representatives
4. Public Authorities
5. Education Providers
6. Media

The full list of stakeholders can be seen in Table 2 of the Greek SEP.

The engagement plan takes into consideration the circumstances, expected level of influence and interest, as well as potential gains and challenges for each stakeholder group.

The detailed SEP for Greece lists the engagement tools/ techniques foreseen to build relationships, collaborate and consult with stakeholders in Table 1.

When it comes to showcasing nZEB buildings, the idea is to use light equipment and mockups and arrange visits to existing nZEB buildings to interested stakeholders.

As an overall comment, Greece is in a relatively unprepared state regarding nZEB buildings. Coming out of a decade-long freeze and thrust into a sudden influx of investments, there is considerable rushing and chaos in the market. However, people are now more informed regarding nZEB buildings compared to the beginning of the century, and there exists a niche but growing market of more demanding clients.

NOTE: The SEP for Greece is presented in Annex .3 attached to this report.

4.4. Italy

For the Italian construction sector, already severely affected by a crisis that since 2008 it has never fully finished, the pandemic blocked the timid signs of recovery. The estimate made by the Italian National Association of Builders (ANCE) for 2020 is a significant decline in construction investments by -10.1% in real terms compared to the previous year, in line with the trend forecast already formulated in April 2020 [1].

The Istat index of production in construction highlights in the first eleven months of last year a decrease of -8.9%. This trend is affected by the sharp drops recorded in the months of the lockdown (-35.5% in March and -68.9% in April), then recovered gradually with the relaxation of the measures taken to contain the pandemic which caused a rebound in production starting from the summer months, not yet sufficient, however, to bring positive sectoral levels [2].

Investments in construction, in fact, recorded in the first nine months of 2020 a contraction of -9.8%. Also Istat data relating to building permits referring to residential and non-residential constructions show a significant decline in the first half of 2020 of -13.6% relative to the number of new homes granted and of -39.3% for permits referring to non-residential construction, interrupting a positive dynamics in place since 2015.

With reference to employment in the construction sector, the data processed from the Joint National Commission for Building Funds (CNCE) on 114 building / building funds, in the first eleven months of 2020, denote a decrease of -10.5% in the number of hours worked compared to a slight increase in the number of registered workers (+ 2.1%) compared to the same period of the previous year. **Companies, therefore, despite the epidemic crisis, have shown the ability to maintain its workforce and the know-how acquired over time,** and they demonstrated the ability to promptly resume and sustain the production with the gradual easing of restrictions and the improving of the economic conditions. The decline in production levels observed in 2020 for the construction sector (-10.1%) involves all sectors with different intensity. Regarding investments in new buildings, a decline of 12.5% compared to 2019 is estimated. **Investments in the renovation of the building stock, that**

represent about 37% of the value of investments in construction, record a first negative sign (-9.8%) [3].

In this context, the Italian Government has identified very **innovative solutions and incentives**, such as the **Super(Eco)Bonus 110%**, to stimulate local economies and recreate lost jobs both along the entire building chain of constructions and in the production of goods and services for the building sector.

The introduced solutions and incentives have aroused **great interest from both end-users and professionals, like producers, construction companies, real estate developers and specialists (designers, architects, engineers), professional chambers & associations**. The firms operating in the construction sector have very high expectations about the potential of these measures. **40% of all companies working in the building sector, in fact, declare that they already have in their portfolio orders for interventions related to the Superbonus 110%, thanks to which it is expected for the next year an increase in turnover of about 10%** [4].

Moving from those assumptions, a total of 120 relevant stakeholders have been identified and grouped according to the following groups:

1. Relevant government authorities, ministries, and public institutions.
2. End users.
3. Professionals – producers, construction companies, real estate developers.
4. Professionals – specialists (designers, architects, engineers), professional chambers & associations.
5. Educational providers.
6. Interested non-governmental organizations.
7. Media – general and specialized.
8. Research organization.

The detailed SEP for Italy lists the identified stakeholders, the groups, the expected engagement level and the engagement tools/ techniques foreseen to build relationships with stakeholders, gather information from stakeholders, consult and collaborate with stakeholders, and disseminate information to stakeholders.

As showed in Table 1 of the SEP, Italy expects a high level of engagement of stakeholder groups that already have a medium level of knowledge and interest on nZEBs (e.g., Professionals – producers, construction companies, real estate developers; Professionals – specialists (designers, architects, engineers), professional chambers & associations; Interested non-governmental organizations; Research organization; etc.). Moreover, we aim for a medium level of engagement of stakeholder groups that still have less awareness on the nZEB related topics (e.g., Relevant government authorities, ministries, and public institutions; Media – general and specialized; etc.). In addition, we strive for a high level of engagement of End-users, aware of the fact that they have the potential to change the market and to orient it towards nZEBs due to the evident economic saving and comfort potential.

NOTE: The SEP for Italy is presented in Annex 7.4 attached to this report.

4.5 Romania

Energy efficiency in buildings and the new concept on Romanian construction market “nZEB” are important subjects for different stakeholders in the local strategies for diminishing the energy consumption, introducing more comfort for the owners of the buildings (in general huge majority living in block of flats, mainly in big cities) and paving the way to climate neutrality as planned now for second part of 21-st century, as indicated in the new EU strategic programs (EU Green Deal, etc.) for the moment.

As several Romanian specialist declare¹, one of the main challenges in the Romanian market towards the implementation of the nZEB concept is represented by the gaps between the existing skills available and the current and future market needs (among other challenges as . limited administrative capacity to cope with the nZEB concept, limited necessary local/public investments as new nZEB buildings, integration of modern construction technologies in current building developments, lack of new feasible business models).

The demand for innovative modules/schemes in training for building renovation market it is also a key element mentioned in the 2018 study of Energy Policy Group for the Asociatia ROENEF.

In Romania, first steps in claiming new resources to be allocated and activities to be realized for training the construction market were realized starting 2011, when a group of local partners started to study the build up skills market for energy efficiency qualifications needed. The first Romanian project has been financed by Intelligent Energy Europe (IEE) Agency and is known under the acronym “Build-Up Skills ROBUST” During 2011 and 2013, it has been realized the first Romanian survey on training market demand related with energy efficiency and a RoadMap² has been designed , as a clear strategy for years to come.

This project has been followed by the Build –Up Skills QualiShell, when an update on the current stage of qualifications on the Romanian market has been realized, including several development of certified schemes for energy efficiency sector demand. The results of the QualiShell project are presented on the Cluster Pro-nZEB webpage³. (Romanian language).

The next step Romanian partners took in relation with the development of market of training skills in Romania has been realized during the Train-to-nZEB project-The Building Knowledge Hubs(during 2015-2018, a network of training centers has been established in several countries in eastern Europe.) The Romanian Building Knowledge HUB has been designed for the Romanian market needs in training and consultancy services. Over the 2 years, more than 900 specialists and non-specialists (mainly public administrations and citizens) in the field of energy efficiency have been trained in the Bucharest center.

¹ Prof. Emilia Cerna Mladin, Energy efficiency conference , Bucharest(online), 2021

² https://issuu.com/businessdevelopment/docs/build-up-skills_roadmap_final_ro

³ <https://www.pro-nzeb.ro/proiect/schema-nationala-de-calificare-pentru-forta-de-munca-din-constructii-pentru-realizarea-de-anvelope-de-inalta-performanta-ale-cladirilor/>

The previous projects were accompanied during years with other several EU subsidized projects. This projects added knowledge and initiatives related with training schemes, as well as introduction new elements in the nZEB market, facilitating the market readiness for nZEB concept. The list of selected additional projects can contain the following names(acronyms); Fit-to-nZEB, RePublic nZEB, iBROAD,ZEBRA2020,MeNS, SMART4nZEB,etc.

The increasing demand on the qualification schemes and training modules on the Romanian market it is also addressed by other current projects in the field of energy efficiency. The nZEB Ready project(starting in September2021 and lasting for 3 years) will also address their efforts for diminishing gaps on nZEB concept implementation in several markets(one of them being the Romanian construction market).

The main objective for the Romanian partners in this deliverable will be to secure(by actions proposed) the engagement of stakeholders at the local/ regional and national level, focusing on key target groups as defined by project proposal and classified by previous work in the project(shown in Deliverable D2.1, D2.2 and D2.3).

The target groups as defined by the project proposal consist of the following categories:

- Public authorities
- End-users (including citizens)
- Young professionals (high schools graduates, students)
- Producers and technology providers/suppliers.
- Construction companies & businesses related with energy
- Research & Development (Knowledge providers incl. Universities).
- Financing organizations (public regional agencies dealing with subsidies and banking institutions)
- Real estate agencies
- NGOs (non –for- profit organizations, advocacy groups etc.)
- Media
- Specialist organizations (incl. designers, architects, auditors etc.)

For easier market perspective, we classified the above target groups in 3 main categories(market groups):

- **END USERS** (consisting of producers of building materials with activities on the Romanian market, construction companies and other related renewable services providers, citizens, as part of the main beneficiaries of the renovation of the residential buildings at high(er) standards)
- **PROFESSIONAL ORGANISATIONS** (architecture individual or companies & bureaus, designing companies in the nZEB field, professional construction auditors etc.)
- **SUPPORT ORGANISATIONS** (R&D organizations, financial institutions in charge with possible special nZEB products financial development, real estate agents, media, high schools, NGOs).

All the target groups are identified as main players on the nZEB market in Romania and their activities cannot be dissociated by other stakeholders in the market. In

Romania, we see other type of organizations with huge impact on the nZEB market, which were not mentioned in the previous steps, but definitely to be included in relevant activities at the local/regional or national level. Several examples are :the software companies or individual persons developing IT or apps in the nZEB field, fairs organizers, medical doctors/physicians in charge with better communication of nZEB comfort and health benefits, HR companies interested to develop specialized courses/modules of trainings in nZEB sector,etc.

Not all the stakeholders can relate between them or with other target groups. In Romania, we see a 'niche' opportunity in being in contact with medical sector/physicians, mainly after the health crisis we are living nowadays. The medical groups/individuals can be invited and help in developing new training modules/training sessions for the citizens, explaining them what importance of the in-door clean air in the post-pandemic times. New business models can be developed, in accordance with the technology providers of "clean air" equipment to be included in the next architect plans for new nZEB buildings.

Developing further, taking in consideration the several passive house+nzeb principles, a dashboard nZEB can be realized together with other stakeholders, as a new platform for "multi-level cooperation model" in Romania. Such platform (accompanied with an nZEB booklet) can be important tools for developing missing partnerships on nZEB market, including trainings).

The methodology proposed for connecting the market demand for training and stakeholders consist, for Romania, of several steps:

1. Identification and mapping of stakeholders

This task has been realized due to the activities in the current project (also based on market experience of several of the Romanian partners in the nZEB Roadshow project).

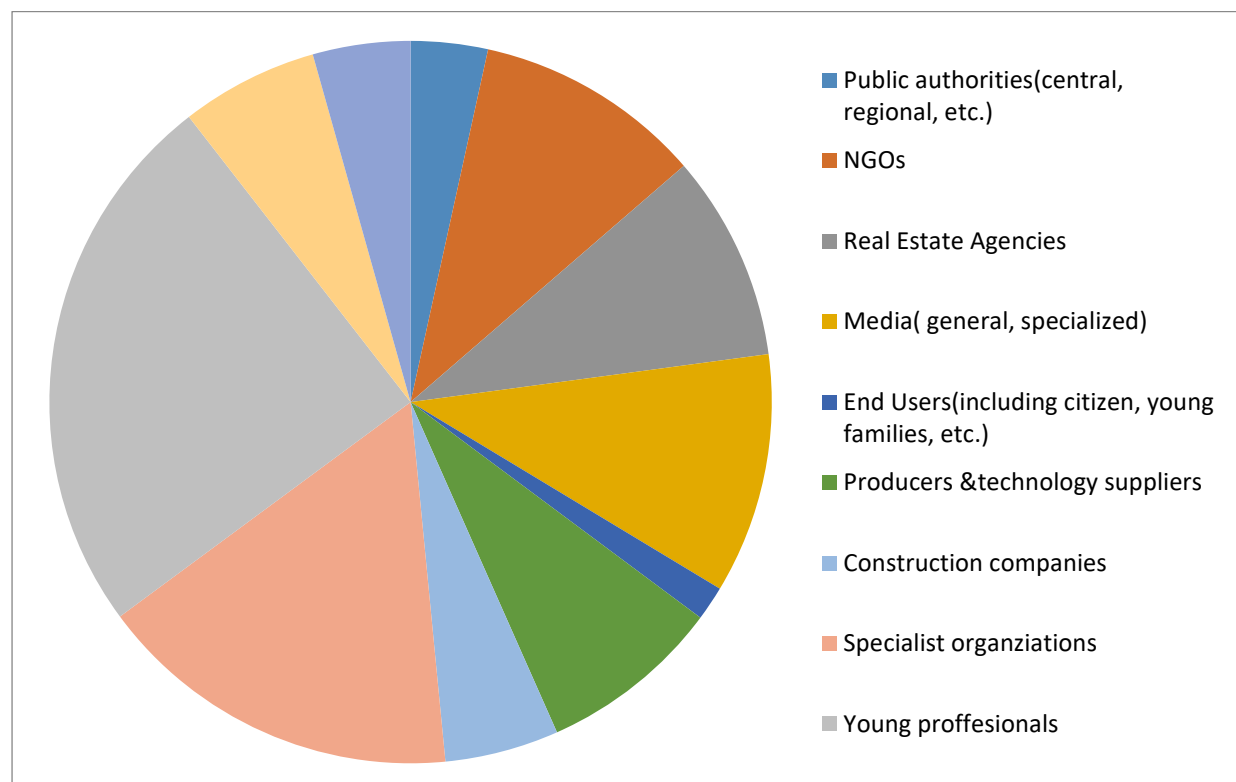
As part of this phase, we developed a scheme to asses the stakeholders using their position/power (P) and interest (I) in the nZEB market.

For each of the chosen stakeholders, as part of our exercise, we used marks between 1(minim position/power or minim importance) to 10(maxim position/power or maxim interest).

Power	Keep Satisfied	Interest	Ratio(I/P)	Power	Manage Closely	Interest	Ratio (I/P)
9	Public authorities (central, regional, etc.)	5	0.556	8	End Users (including citizen, young families, etc.)	2	0.25
3	NGOs	5	1.667	6	Producers &technology suppliers	8	1.33
				6	Construction	5	0.83

					companies		
				3	Specialist organizations	8	2.67
Power	Monitor (Minimum Effort)	Interest		Power	Keep Informed	Interest	
2	Real Estate Agencies	3	1.5	2	Young professionals	8	4.00
4	Media(general, specialized)	7	1.75	5	Research and development sector	5	1.00
				7	Financial Institutions	5	0.71

Note: The table above has been developed for target project groups, but can be extended to any other stakeholder (medical doctors, etc.).



In correspondence with their power/importance on the market, the Romanian team identified 4 categories of actions to deal with, in relation with a good output of the engagement.

The Central and local administration, as well the NGOs have an important role in the local market. The administration keeps the most important role in positioning themselves as powerful player. Both administration and NGOs have to be informed about the activities performed in engaging the other target groups.

As regard to other groups as “end-users” their power on the market is low(as relations between offering good quality public services and citizens are not at good level in Romania) but their influence must be higher as they are the main beneficiaries of the improvement of skills and knowledge activities in nZEB market. Specialist organizations (architects and designers, energy auditors, etc.) are considered also a very important player, as they need to keep and raise the quality level of constructions by implementing high standards of professionalism in their fields of activity.

A hot topic when nZEB engagement is related with finding the right paths and actions involving of young professionals. Either students or young graduates seem un-interested in developing skills and knowledge platforms as well as entering the nZEB market. Special actions can be drawn for this category, involving also the new social media and innovative technologies available.

2. Planning the interaction/activities between the stakeholders.

This task it is related with the ability of each project manager to deal with interaction between various groups of stakeholders or stakeholders between the same group(many times, there are little/unknown groups in the one organization which can offer trainings or various sessions or other type of expertise for other groups, in same organization)

3. Design the Plan for Stakeholders Activities (so called Stakeholders Engagement Plan, SEP) and monitoring activities under SEP

The final part of connecting the training demand with the Romanian stakeholders is essentially an outline of the various activities the project team (and other stakeholders, if considered) will undertake to communicate with stakeholders, manage their actions and planned expectations, and keep them engaged with the nZEB implementation of innovative training modules/courses in nZEB market. This includes activities such as pre-planned meetings with stakeholders or other key preparatory documents.

Note: The stakeholders engagement plan (SEP) for Romania is presented in the Annex 7.5 attached to this deliverable.

5 Monitoring and Evaluation the engagement process

The proposed method to organize the evaluation of the stakeholders engagement plans is the *formative one*. The formative method (Durham& all, 2014) allows stakeholders to learn from their engagement process. This will enable project teams and other participants in the process to learn and adapt their activities from the process participants.

Several benefits coming from the evaluation of stakeholders engagement process are listed below:

- 1.Evaluation and monitoring can prove if the SEP is correctly planned and implemented.
- 2.The results from evaluation process will allow the project teams, in each country, to modify it and improve the action when and where necessary.
- 3.The results from evaluation can prove to the stakeholders involved in SEP implementation that the project team works in correspondence with their aims and shows also their (share of)involvement.

The evaluation and monitoring process should focus on 3 main topics or answering to following questions:

- A. Is the engagement process considered a success in local nZEB markets or should be refined?
- B. Is the SEP implementation methodology appropriate or activities are not sufficient or too expensive in relation with final outputs?
- C. Are the planned outcomes matching the market nZEB needs ?

In relation with the evaluation and monitoring criteria, the project teams considers that the following table can be adapted by each country team in order to use it in measuring the impact of the stakeholders engagement. This table it is in line with the suggested measurements as planned in the initial nZEB project proposal and is to be continued in the post project implementation phase.

Scope	Indicator name	Assumption activities/year/country	Goal
Raise awareness stakeholders	No. of nZEB weeks	2	Improved information on nZEB domain
Partnerships with/ between stakeholders	No. of active signed partnerships	5	Better cooperation between stakeholders in complementary activities
Support to stakeholders	No. of organized events	5	Improve cooperation in organization common events
Reduction in performance gap	No of courses	6	Intersectorial cooperation for improving knowledge in nZEB sector.
Other(specific per country)	-	-	-

6 CONCLUSION

6.1. In each of project country, the partners early identified and connect with relevant stakeholders.

6.2. As the nZEB markets are different in several project countries, the SEPs (Stakeholders Engagement Plans) may differ from one country to another. The SEPs were developed with the partners view on their respective markets and finalized after local consultations.

6.3. As SEPs might differ, at this moment they contain minimum elements to be considered when engaging cooperation in different markets. Being developed during pandemic times, a review of these SEPs might add more responsibilities, possible budgets and performance criteria , at the end. The improved SEPs might be used for a longer period than the project implementation, thus it is important to be locally consulted and accepted in each nZEB Roadshow project market.

6.4. At this moment, the SEPs are strategic papers for engaging stakeholders in each country. They can be considered the integral part of project success. During the next period implementation, all nZEB Roadshow project partners should activate and take self-responsibilities in order to continue outreach, dialogue and local consultations with old or new stakeholders.

6.5. Each SEP activity might be registered in a common database, in order to ensure an effective evaluation and monitoring process. Based on these activities reports(flexible per country, partner or event) the SEP can be improved continuously.

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7 ANEXES

7.1 SEP BULGARIA

No.	Stakeholder group / Type	Area of interest	Level of engagement	Type of engagement
1	End-users, young people, real estate	Awareness raising, Information, Education Collaboration	High	<ul style="list-style-type: none"> • Individual consultations • Demonstrations: VR marketing, Ice challenge, Blower door test • Creating and posting accessible, comprehensive and quality informative materials, emphasizing on nZEB principles, quality and sustainable living, innovative solutions. • Provide monitoring results from nZEB projects • Share direct examples of construction failures • Informing through partners' and relevant associations' websites • Informing through the selected media and the social media channels (FB, IG, podcasts) • Attracting trainees and informing through the communication channels of the selected universities, professional schools and VET centers • Organizing photo competition • Organizing trainings during the nZEB weeks and through the BKH, including for non-specialists • Targeted marketing campaigns through the social media • Share personal stories of nZEB investors and inhabitants via different channels • Designing games, quizzes and interactive sessions during the nZEB days • Designing catchy flyers and e-promotional materials for distribution during the nZEB weeks and the web • Short trainings for brokers during nZEB weeks and online

				<ul style="list-style-type: none"> • Setting up corners for each subgroups during the nZEB weeks with tailor-made information and demonstrations • Use the content and the target audience of other relevant projects
2	Media	Awareness raising, Publicity, Information, Market positioning	High	<ul style="list-style-type: none"> • Provide good and attractive content with quality information on EE, based on the target media audience • Sending invitations to take part in the nZEB weeks, including regional media • Sending press releases after each event to selected media channels • Expanding the partnership with Stroitel newspaper to depict all nZEB weeks. Negotiate opportunities to include EE column in the paper edition. • Establishing strategic partnerships with selected media channels • Using direct contacts with other media, who have interviewed project partners on EE issues on other occasions (Bloomberg, Bulgaria ON AIR, Bulgarian National Radio) • Take part in appropriate media conferences • Organize live demonstrations. Present appealing content and attractive new technologies • Create direct contact with advertisers • Podcasts/interviews with key actors • Livestreaming key activities • Creating e-promotional materials for all target groups
3	Producers and Suppliers of nZEB-compatible products and materials & DIY stores	Market penetration, Market positioning, Awareness raising, Publicity Collaboration Partnership	High	<ul style="list-style-type: none"> • Expand existing and create new partnerships with producers and suppliers (email, phone and direct communication, individual consultations) • Information through the media, social networks and partners'/project website • Invite them to support the nZEB weeks organization and the

				<p>development of the mobile demonstration units</p> <ul style="list-style-type: none"> • Participate in online games & quizzes with small prizes distribution • Invite them as trainers during the nZEB weeks • Utilize the dissemination channels of the partnerships to share information about the nZEB Roadshow • Approach DIY stores through the partnerships with the producers • Shared marketing audiences, barter partnerships, and performing brand equity sharing activities with DIY stores, producers, and suppliers • Approach the largest DIY stores to attract them as partners (negotiations with the largest BG chain – Toplivo have started) and organize demonstrations, consultations and trainings at their premises • Participate at events targeted at the construction sector, such as the Construction and Architecture week
4	Professional chambers and associations & Professional service providers	Awareness raising, Regulatory, Educational, Collaboration	High	<ul style="list-style-type: none"> • Inform about the nZEB weeks and trainings • Engage them as consultants and trainers (managers and opinion leaders) • Consultations (individual and during the nZEB weeks) to convince them in the value in developing nZEB knowledge and skills • Use their influential power on legislation drafting • Utilize the regional network of BCC to reach all construction companies and workers, to inform them and attract them to the nZEB weeks and trainings. • Draft quality information materials, emphasizing on the importance of knowledge and skills in nZEB construction
5	Education	Educational,	High	<ul style="list-style-type: none"> • Email and direct communication

	services	Awareness raising		<ul style="list-style-type: none"> • Exploring existing and create new partnerships • Support the organization of the nZEB weeks and use their communication channels • Support them to develop new training materials and reach new potential users • Sharing audiences in marketing campaigns and activities • Create synergies between education providers and suppliers • Promote the innovation in training contents, training tools,
6	Public authorities	Legal, Regulatory, Collaboration	High	<ul style="list-style-type: none"> • Email and direct communication • Expand existing partnerships with public authorities/networks • Informative campaign to add more clarity on the functioning of the markets • Promote the need to support training and education activities through appropriate media • Design tailor-made social media campaigns, incl. podcasts • Provide expert support for the development of new policies, norms, and regulations • Assist them on public procurement specifications and promote innovative technologies and solutions • Strive to conduct one training for construction/renovation of building with high publicity • Support event organization and participate in nZEB weeks • Invite them to participate in relevant conferences and roundtable • Participate in the public consultation procedures (Recovery and Resilience Plan and other related support programmes) • Explore opportunities to apply on-site training in municipal renovation projects • Use the synergies with other relevant projects

				<ul style="list-style-type: none"> Recommendations for policy makers
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7.2 SEP CROATIA

No.	Stakeholder group / Type	Area of interest	Level of engagement	Type of engagement
1.	Relevant government authorities, ministries, and public institutions	Legal, Regulatory	High	<ul style="list-style-type: none"> Official correspondence Expert meetings (Expert Committee for preparation and monitoring of the implementation of regulations in the field of energy efficiency in buildings & Technical Committee for Thermal insulation standards & etc.) Formal and / or one-on-one meetings Support event organization and participate in events Interviews posted on MUZA website and/or project social media networks (e.g. podcast format or written format)
2.	Interested non-governmental organizations	Social awareness, Educational	High	<ul style="list-style-type: none"> Direct email and/or phone communication Support event organization and participate in events Support development of nZEB mobile house MUZA Dissemination of project activities (media / press releases/ newsletters) Interviews posted on MUZA website and/or project social media networks (e.g. podcast format or written format)
3.	End users & Educational providers	Information Availability, Educational	High	<ul style="list-style-type: none"> Informing through the media – social media networks, specialized online portals, TV, etc. (announcements) Informing through the MUZA web site and printed project materials (e.g. brochure) Direct information through the local authorities Direct email and/or phone communication

				<ul style="list-style-type: none"> • Public consultation meetings at nZEB days/weeks and individual consultations meetings if necessary (online, e-mail, social media platforms, in person) • Feedback survey, questionnaire, quizzes, comic book or other games requiring active participation (adjusted to specific end user type) • Case Study competition for students • Classroom or online courses, on-site workshops • Interviews posted on MUZA website and/or project social media networks (e.g. podcast format or written format)
4.	Professionals – specialists (designers, architects, engineers), professional chambers & associations	Educational, Market positioning, Regulatory	High	<ul style="list-style-type: none"> • Training (webinars, on-site, etc.) • Public consultation meetings at nZEB days/weeks and individual consultations meetings if necessary (online, e-mail, social media platforms, in person) • Informing through the media – social media networks, specialized online portals, TV, etc. (announcements) • Informing through the MUZA web site and printed project materials (e.g. brochure) • Direct information through the professional associations, construction companies, etc. • Feedback survey, questionnaire, quizzes or other games requiring active participation • Interviews posted on MUZA website and/or project social media networks (e.g. podcast format or written format)
5.	Professionals – producers, construction companies, real estate developers	Market penetration, Market positioning, Regulatory	High	<ul style="list-style-type: none"> • Direct email and/ or phone communication • Support event organization and participate in events • Support development of nZEB mobile house MUZA • Dissemination of project activities (media / press

				<p>releases)</p> <ul style="list-style-type: none"> • Informing through the media – social media networks, specialized online portals, TV, etc. (announcements) • Informing through the MUZA web site and printed project materials (e.g. brochure) • Direct information through the professional associations, construction companies, etc. • Public consultation meetings at nZEB days/weeks and individual consultations meetings if necessary (online, e-mail, social media platforms, in person) • Interviews posted on MUZA website and/or project social media networks (e.g. podcast format or written format) • Practical training of their workers (“learning by doing”)
6.	Media – general and specialized	Social awareness, Market positioning	High	<ul style="list-style-type: none"> • Direct email and/or phone communication • Announcement and dissemination of project activities

7.3 SEP GREECE

No.	Stakeholder group / Type	Area of interest	Level of engagement	Type of engagement
1.	Producers & suppliers of buildings materials, components and/or systems	Market penetration, Market positioning, Regulatory	High	<ul style="list-style-type: none"> • Direct email and/ or phone communication • Support event organization and participate in events • Dissemination of project activities (media / press releases) • Informing through the media – social media networks, specialized online portals, TV, etc. (announcements)

				<ul style="list-style-type: none"> • Practical training of their workers (“learning by doing”)
2.	Professional Chambers and Designers	Educational, Market positioning, Regulatory	High	<ul style="list-style-type: none"> • Training (webinars, on-site, etc.) • Public consultation meetings at nZEB days/weeks and individual consultations meetings if necessary (online, e-mail, social media platforms, in person) • Informing through the media – social media networks, specialized online portals, TV, etc. (announcements) • Feedback survey, questionnaires
3.	Construction Sector Companies & Representatives	Market penetration, Market positioning, Regulatory	High	<ul style="list-style-type: none"> • Direct email and/ or phone communication • Support event organization and participate in events • Dissemination of project activities (media / press releases) • Informing through the media – social media networks, specialized online portals, TV, etc. (announcements) • Practical training of their workers (“learning by doing”)
4.	Public Authorities & Agencies	Legal, Regulatory	High	<ul style="list-style-type: none"> • Direct email and/or phone communication • Expert meetings (technical agencies of public authorities etc.) • Formal and / or one-on-one meetings • Support event organization and participate in events
5.	Education Providers	Information Availability, Educational	High	<ul style="list-style-type: none"> • Informing through the media – social media networks, specialized online portals, TV, etc. (announcements) • Direct information through the local authorities • Direct email and/or phone communication • Public consultation meetings at nZEB days/weeks and individual consultations meetings if necessary (online,

				e-mail, social media platforms, in person <ul style="list-style-type: none"> Feedback surveys, questionnaires, etc. Classroom or online courses, on-site workshops
6.	Media – general and specialized	Social awareness, Market positioning	High	<ul style="list-style-type: none"> Direct email and/or phone communication Announcement and dissemination of project activities

7.4 SEP ITALY

No.	Stakeholder group / Type	Area of interest	Level of engagement	Type of engagement
1.	Relevant government authorities, ministries, and public institutions	Legal, Regulatory	Medium	<ul style="list-style-type: none"> Official correspondence. Expert Committee for preparation and monitoring of the implementation of regulations in the field of energy efficiency in buildings. Technical Committee for practical knowledge of technical aspects (e.g., insulation, air tightness, etc.). Formal and / or one-on-one meetings. Support event organization and participate in events.
2.	End users	Information Availability, Educational	High	<ul style="list-style-type: none"> Informing through the media (e.g., social media networks, specialized online portals, TV, etc.) Direct information through the local authorities. Direct email and/or phone communication. Public consultation meetings at nZEB days/weeks. Individual consultations meetings (online, e-mail, social media platforms, in person).

				<ul style="list-style-type: none"> • Feedback survey, questionnaire, quizzes, comic book or other games requiring active participation (adjusted to specific end user type). • Classroom or online courses or on-site workshops.
3.	Professionals – producers, construction companies, real estate developers	Market penetration, Market positioning, Regulatory	High	<ul style="list-style-type: none"> • Direct email and/ or phone communication. • Support event organization and participate in events. • Dissemination of project activities (media / press releases). • Informing through the media (e.g., social media networks, specialized online portals, TV, etc.). • Direct information through the professional associations, construction companies, etc. • Public consultation meetings at nZEB days/weeks. • individual consultations meetings (online, e-mail, social media platforms, in person). • Practical trainings.
4.	Professionals – specialists (designers, architects, engineers), professional chambers & associations	Educational, Market positioning, Regulatory	High	<ul style="list-style-type: none"> • Training (webinars, on-site, etc.). • Public consultation meetings at nZEB days/weeks. • Individual consultations meetings (online, e-mail, social media platforms, in person). • Informing through the media (e.g., social media networks, specialized online portals, TV, etc.). • Direct information through the professional associations, construction companies, etc. • Feedback survey, questionnaire, quizzes or other games requiring active participation.
5.	Educational providers	Educational, Regulatory	Medium	<ul style="list-style-type: none"> • Direct email and/ or phone communication. • Support event organization

				<p>and participate in events.</p> <ul style="list-style-type: none"> • Dissemination of project activities (media / press releases). • Informing through the media (e.g., social media networks, specialized online portals, TV, etc.). • Direct information through the professional associations, construction companies, etc. • Public consultation meetings at nZEB days/weeks. • Individual consultations meetings (online, e-mail, social media platforms, in person).
6.	Interested non-governmental organizations	Social awareness, Educational	High	<ul style="list-style-type: none"> • Direct email and/or phone communication. • Support event organization and participate in events. • Dissemination of project activities (media / press releases/ newsletters).
7.	Media – general and specialized	Social awareness, Market positioning	Medium	<ul style="list-style-type: none"> • Direct email and/or phone communication. • Support event organization and participate in events. • Announcement and dissemination of project activities. • Support event organization and participate in events.
8.	Research organization	Research, Educational, Regulatory	High	<ul style="list-style-type: none"> • Direct email and/or phone communication. • Announcement and dissemination of project activities.

7.5 SEP ROMANIA

Crt.No.	Type of stakeholder/Group	Area of interest	Level of engagement	Type of Engagement
1.	END USERS (building materials stakeholders, construction companies and other related renewable services providers, citizens as homeowners, as part of the main beneficiaries of the renovation of the residential buildings at high(er) standards)	Market positioning Raising awareness Improving knowledge level	High	<ul style="list-style-type: none"> • Organize regular social media posts re-sharing campaigns with associated partners and influencers from Romania. • Organize online webinars with nZEB experts • Produce and publish articles and interviews • Creation/update of a database with potential buyers and investors in NZEB projects. • Creation/enrichment of a database with professional builders trained in NZEB principles and practices • Organizing open events in various locations (DIY stores, national fairs, etc.) • Organize nZEB cafés providing information sessions and free consultations for citizens and end-users • Organize guided visits to nZEB buildings, passive or solar houses
2.	PROFESSIONAL ORGANIZATIONS (architecture individual or companies & bureaus, designing companies in the nZEB field, professional construction & energy auditors)	Market positioning Regulatory Market Information	High	<ul style="list-style-type: none"> • Create and organize open training sessions and certification trainings for construction professionals. • Organize career orientation & counselling events with possibility for networking with employers. • Organizing public events, such as conferences, seminars, workshops, nZEB fairs, nZEB weeks. • Organize free on-site training during the execution of public construction projects. • Organize online webinars with experts. • Record online video

				<p>interviews with different experts and partners to share knowledge & recommendations</p> <ul style="list-style-type: none"> Organize regular social media posts re-sharing campaigns with associated partners and influencers from Romania.
3.	<p>SUPPORT ORGANIZATIONS (Public Administration, R&D organizations, construction associations, financial institutions in charge with possible special nZEB products financial development, real estate agents, media, high schools, environmental NGOs)</p>	<p>Social awareness Improving Knowledge Level Market information Regulatory</p>	High	<ul style="list-style-type: none"> Participation in conferences, networking events and product exhibitions. Initiation of local/regional voluntary awareness groups for improving knowledge and cooperation at ground level. Stimulate & assist community building by organizing networking corners in the area of the live events/roadshows. Initiation of local/regional voluntary awareness groups for improving knowledge and cooperation at ground level Organize nZEB cafés providing information sessions and free consultations for citizens and end-users Create and distribute printing commercial and information materials. Organize engaging parallel activities during roadshow days, such as storytelling, gamification, photo competitions and attractive media events.

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