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|  | **Answer** *(collect relevant aspects in bullet points over time – if specific to certain country, climatic zone, building type, please indicate in a short bracket following the bullet point)* | **Additional sources** *(if available or applicable, please add links/ references)* |
| **Zero Emission Standard (ZEB)** | | |
| **General observations regarding policy needs and possible overlaps with other work packages** | | |
| *What do you consider to be the possible interactions and inferences of existing ZEB definitions and ZEB definition scenarios with NBRPs?* |  |  |
| *What do you consider to be the possible interactions and inferences of existing ZEB definitions and ZEB definition scenarios with MEPS?* |  |  |
| *What do you consider to be the possible interactions and inferences of existing ZEB definitions and ZEB definition scenarios with BRPs?* |  |  |
| *What do you consider to be the possible interaction and interferences of existing ZEB definitions and ZEB definition scenarios with EPCs[[1]](#footnote-2)?* |  |  |

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| **Specific questions relevant to the focus countries** | | |
| **Calculation methodology** | | |
| *What should be the methodological approach to develop the ZEB standard?* |  |  |
| *What would be the most important aspects to be considered in the new ZEB (zero emissions building) definition and methodology?* |  |  |
| *Considering the following key features[[2]](#footnote-3), what are the most relevant aspects for the ZEB definition?*  *• System boundary (operational vs. life-cycle approach).*  *• Emission balance boundary (net zero vs. absolute zero emissions).*  *• Spatial boundary (e.g., single building, group of buildings, district).*  *• Calculation methods (static vs. dynamic approach).*  *• Indicators and metrics (e.g., primary energy, final energy, CO2 emissions, GHG emissions, GWP100).* |  |  |
| *What were the most difficult issues in your country regarding the elaboration of the national calculation methodology for nZEB?* |  |  |
| *What are the lessons learned (from nZEB standard) to consider for the future elaboration of ZEB standard?* |  |  |
| *What do you think would be the most difficult issues in your country regarding the elaboration of the national calculation methodology for ZEB?* |  |  |
| **Implementation and policy framework** | | |
| *What were/are the most difficult issues in your country regarding implementing the nZEB standard?* |  |  |
| *What are the learned lessons (from nZEB standard) to consider for the future implementation of ZEB standard?* |  |  |
| *What do you think would be the most difficult issues in your country for implementing the ZEB standard?* |  |  |
| *Which are the nZEB requirements in your country? Which ones should be maintained or deleted for the ZEB standard?* |  |  |
| *What does it mean “high energy performance buildings” and “very low energy amount” (according to the definition of nZEB)?* |  |  |
| *Is it necessary to have a distinction between new and existing buildings in the new ZEB definition? Which aspects do you think need to differ in the two cases?* |  |  |
| *Does your country have an observatory or database of high energy performance buildings as starting point for implementation of ZEB and as monitoring tool?* |  |  |
| *Moving on to zero emission buildings, the assessment of the embodied GHG emissions should become mandatory as well. Does your country have the necessary policy tools to target the reduction of embodied carbon (e.g., data reliability, market readiness etc.)? What do you think needs improvement?* |  |  |
| **Other** | | |
| *What kind of support would you and representatives in your country responsible for the elaboration and implementation of the ZEB standards like to receive from the EPBD.wise project in terms of implementation of ZEB.* |  |  |

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| **National Building Renovation Plan (NBRP)** | | |
| **General observations regarding policy needs and possible overlaps with other work packages** | | |
| *How can NBRPs be framed to further harmonize the planning and reporting and to ensure comparability as well as a higher level of aggregation?* |  |  |
| **Specific questions relevant to the focus countries** | | |
| **Implementation and policy framework** | | |
| *What are the institutional processes to set up NBRP? What is the involvement of the main stakeholders in the design process of each policy instrument (ZEB, MEPS, BRPs and EPCs)?[[3]](#footnote-4)* |  |  |
| *Is there a long-term vision for the decarbonization of buildings in your country? Does this vision link strategic measures together with an appropriate investment plan?* |  |  |
| *What were the most difficult issues in your country regarding drafting the Long-Term Renovation Strategy (LTRS)?* |  |  |
| *What are the most difficult barriers you envision for your country to the elaboration of NBRPs?* |  |  |
| *Is there a full understanding of the building stock in your country (building typologies, construction styles, age, climatic zones, occupancy and ownership patterns)? In which area can you identify data gaps?* |  |  |
| *Are there any restrictive practices concerning local deployment of low/zero carbon technologies in buildings?* |  |  |
| *Please assess the need for support that is required when drafting the NBRP (high/medium/low):*   * *Describing the status of the building stock, its energy use and GHG-emissions.* * *Describing the recent dynamics in the building stock (renovation rate, new buildings construction, demolition practices etc.).* * *Deriving consistent targets for renovation rates, primary and final energy savings as well as related GHG-emission reductions for 2030, 2040, 2050.* * *Expected wider benefits.* * *Expected impact of policies.* * *Investment needs and budgetary sources.* |  |  |
| **Monitoring** | | |
| *Are there any monitoring tools overseeing the progress achieved so far through the LTRS?* |  |  |
| *What monitoring tools would need to be expanded or developed for a better implementation of the NBRPs?* |  |  |
| **Other** | | |
| *If EPBD.wise would develop a template for NBRPs, which elements would be most relevant and helpful for you (and representatives in your country responsible for NBRP development)?* |  |  |
| *Which support would you and representatives in your country responsible for NBRP development like to receive from the EPBD.wise project in terms of NBRP development?* |  |  |

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| **Minimum Energy Performance Standards (MEPS)** | | |
| **General observations regarding policy needs and possible overlaps with other work packages** | | |
| *To what extent are/ should MEPS be developed in relation to a ZEB standard?* |  |  |
| *How can/ should BRPs make use of MEPS in their design?* |  |  |
| *Should EPCs be connected to/ integrated in MEPS design? In what way? (e.g., show compliance, indicate target level, qualify as WPBs etc.)* |  |  |
| **Specific questions relevant to the focus countries** | | |
| **Policy and legal framework** | | |
| *What is the legal status of MEPS in your country?* |  |  |
| *What is the policy setting regarding the design and implementation of MEPS in your country?* |  |  |
| *What policies do you think would stimulate the MEPS based renovation works in your country?* |  |  |
| **Communication and perception** | | |
| *Is there a clear understanding for MEPS in your country?* |  |  |
| *Is there a clear definition for worst-performing buildings in your country? Do you have an overview of their share within the building stock (in terms of number of buildings and floor area)?* |  |  |
| *How is the stakeholder environment in favor/ opposing to MEPS?* |  |  |
| **Layout** | | |
| *What would you identify as key design features/ characteristics of MEPS scheme?* |  |  |
| *What metric would you use to assess the implementation of MEPS?* |  |  |
| **Experts and skills** | | |
| *A dynamic roll-out of energy renovations supported by MEPS depends on the availability of a qualified workforce. Do you believe your country has the necessary competence and skills in the workforce to accelerate high-quality renovation works? Does your country have training programs to acquire the necessary competences and skills?* |  |  |
| **Financial incentives** | | |
| *Is there an ecosystem of financial support in which MEPS schemes to be embedded?* |  |  |
| *What type of financial incentives do you think would stimulate the deployment of MEPS in your country?* |  |  |
| **Other** | | |
| *What kind of support would you and representatives in your country responsible for the elaboration of MEPS schemes like to receive from the EPBD.wise project in terms of MEPS implementation?* |  |  |

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| **Building Renovation Passport (BRP)** | | |
| **General observations regarding policy needs and possible overlaps with other work packages** | | |
| *How should/ could BRPs be linked to ZEB standards?* |  |  |
| *How should/ could BRPs interact with NBRP respectively built on each other?* |  |  |
| *What are the requirements to the legal status of BRP to become a design element for MEPS schemes?* |  |  |
| *What are the overlaps between BRP/ EPCs? (DBL?)* |  |  |
| **Specific questions relevant to the focus countries** | | |
| **Policy and legal framework** | | |
| *What is the legal status of BRP in your country?* |  |  |
| *What is the national policy setting regarding the design and implementation of BRPs?* |  |  |
| *What policies do you think would stimulate the deployment of BRPs in your country?* |  |  |
| **Communication and perception** | | |
| *How would you assess the public awareness level towards BRPs in your country?* |  |  |
| **Layout** | | |
| *What do you consider to be the key elements of the BRP design and implementation to ensure its success?* |  |  |
| **Experts and skills** | | |
| What is the qualification requirement for experts developing the Renovation Roadmap and issuing the Renovation Passport? |  |  |
| Do you distinguish according to type of Renovation Roadmap, e.g. for single family house, multi-unit residential building, large non-residential buildings? |  |  |
| **Cost of BRP** | | |
| How much is the willingness to pay for a Renovation Roadmap? |  |  |
| Do you distinguish according to building type and level of detail? |  |  |
| **Financial incentives** | | |
| *What are the existing financial incentives regarding the implementation of BRPs in your country?* |  |  |
| *What type of financial incentives do you think would stimulate the deployment of BRPs in your country?* |  |  |
| **Other** | | |
| *What kind of support would you and representatives in your country responsible for elaborating BRPs like to receive from the EPBD.wise project in terms of BRPs implementation?* |  |  |
| **Energy Performance Certificate (EPC)** | | |
| **General observations regarding policy needs and possible overlaps with other work packages** | | |
| *To what extent are EPCs linked to ZEB/nZEB already? To what extent should future EPCs be reflecting the new ZEB standard?* |  |  |
| *To what extent are EPCs used (e.g., EPCs database) in order to set up the NBRP?* |  |  |
| *What would be the design aspects to consider if EPCs are to be used in MEPS implementation (e.g., quality, comparability, legal status)?* |  |  |
| *How can EPC and BRP implementation be better streamlined/integrated?* |  |  |
| **Specific questions relevant to the focus countries** | | |
| **Legal and policy framework** | | |
| *What is the national legal framework in regard to the design and implementation of EPCs? (EPBD version, last updates, covers all legislation, regional or national approaches, exemptions, or omissions)* |  |  |
| **Calculation methodology** | | |
| *What kind of methodology do you use for EPC calculation (static, dynamic, seasonal, monthly, hourly) by building type (residential and non-residential)* |  |  |
| *When was the last time the current methodology was deeply updated?* |  |  |
| **Communication and perception** | | |
| *In general, what is the perception of the quality of EPCs in your country?* |  |  |
| *What is the level of acceptance of EPCs in your country?* |  |  |
| *Are EPCs considered useful in your country or rather an administrative cost?* |  |  |
| *Are EPCs considered to have an appropriate cost?* |  |  |
| *Are there any one-stop-shops (or similar) in place in your country and does the EPC have a role?* |  |  |
| **Layout and indicators** | | |
| *How old is/are the EPC layout(s) in your countries?* |  |  |
| *Are the EPCs displayed in front of buildings, when applicable (e.g., public buildings)?* |  |  |
| *In general, do you consider that the EPC indicators are well understood by their target audience (homeowners, building managers, etc.)?* |  |  |
| **Databases** | | |
| *Do you have an EPC database in your country?* |  |  |
| *Regardless of the support of the EPC scheme, are there additional uses of the EPC database?* |  |  |
| *Do you consider GDPR an issue for the use of the EPC database?* |  |  |
| **Independent control system** | | |
| *Are there any tools or policies for quality assurance of the EPCs?* |  |  |
| *Which tools or polices do you use in your country for EPC quality assurance?* |  |  |
| **Monitoring** | | |
| *Are EPCs used to design and monitor public policies and inform policy makers?* |  |  |
| **Experts and skills** | | |
| *What requirements exist to become an EPC expert?* |  |  |
| *Are there any requirements to maintain qualification over time? If yes, which?* |  |  |
| *What is your perception in terms of the quality/capacity of the existing EPCs experts?* |  |  |
| *Are there sufficient EPC experts to fulfil market demand?* |  |  |
| **Financial incentives** | | |
| *Are the EPCs used for financing or incentives schemes in your country?* |  |  |
| *Are there additional advantages from having an EPC when applying to financing or incentives?* |  |  |
| *Do EPCs provide relevant financing information (costs, paybacks) to be used in existing financing schemes?* |  |  |
| **Other** | | |
| *What kind of support would you and the representatives in your country responsible for implementing EPCs like to receive from the EPBD.wise project in terms of EPCs implementation?* |  |  |

1. For the first four questions, a first round of input will come from the consortium partners: TU Wien (for everything related to ZEB and NBRP), e-think (for everything related to MEPS), SERA (for issues related to BRPs) and ADENE (for EPCs related questions). Subsequently, we can address the same questions to the FCCP for more specific information on the situation in each focus country. [↑](#footnote-ref-2)
2. Maduta, C., Melica, G., D’agostino, D., Bertoldi, P., Defining Zero-Emission Buildings. Support for the revision of the Energy Performance of Buildings Directive, Publications Office of the European Union, Luxembourg, 2023, doi:10.2760/107493, JRC129612. [↑](#footnote-ref-3)
3. What we are trying to get from this question is a description of the main steps as well as the leading stakeholders involved in the elaboration of the NBRP (e.g., who is responsible for drafting the NBRP, how do they gather the data, is there a specific focus on any of the elements addressed by the EPBD.wise: ZEB, MEPS, BRPs and EPCs?). [↑](#footnote-ref-4)