Support to the Preparation of Social Climate Plans

Deliverable 3

Report on eligible measures and investments to be considered under the Social Climate Plan

Final report for Slovakia

REFORM/2021/OP/0006 Lot 1

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Support to the Preparation of Social Climate Plans

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Contents

List of Abbreviations

Abbreviation / Acronym	Full Term / Definition
BA	Beneficiary Authority (National Implementation and Coordination Authority)
BRP	Building Renovation Passport
CEF	Connecting Europe Facility
CO_2	Carbon dioxide
DLV	Deliverable
DNSH	Do No Significant Harm
EC	European Commission
EED	Energy Efficiency Directive
EPBD	Energy Performance of Buildings Directive
EPC	Energy Performance Certificate
ETS2	Emissions Trading System 2
GHG	Greenhouse gas
MCA	Multi-criteria analysis
MoF	Modernisation Fund
MS	Member State
M&Is	Measures and investments
NADA	National Transport Authority
NECP	National Energy and Climate Plan
NIKA	National Implementation and Coordination Authority (BA)
NGO	Non-governmental organisation
NZEB	Nearly Zero Energy Building
RES	Renewable Energy Sources
RRP	Recovery and Resilience Plan
OPEX	Operative expenses
OSS	one-stop-shops
SAŽP	Slovak Environment Agency
SCF/Fund	Social Climate Fund
SCP	Social Climate Plan
SEVA	Slovak Electric Vehicle Association
SG REFORM	European Commission Task Force for Reform and Investment
SIEA	Slovak Innovation and Energy Agency
SK8	The Association of Self-Governing Regions of Slovakia
SSKI	Social crisis intervention services
ŠFRB	State Housing Development Fund
TCO	Total cost of ownership
TSI	Technical Support Instrument
ZEB	Zero Emissions Building
ZSSK	Železničná spoločnosť Slovensko
ŽSR	Železnice Slovenskej republiky

1. Executive summary

This document is the third deliverable of the project *Support to the Preparation of Social Climate Plans,* funded by the European Union via the Technical Support Instrument, and managed by the European Commission (EC) Task Force for Reform and Investment (SG REFORM). The project aims to support nine Member States (MS) (Belgium, Croatia, Czechia, Denmark, Finland, Latvia, Lithuania, Romania, and Slovakia) in the development of their Social Climate Plans, hereafter referred to as SCP. These plans set out national approaches to reduce the potential negative impacts of the introduction of the Emissions Trading System 2 (ETS2) on vulnerable households, transport users and micro-enterprises through targeted support in the areas of buildings, clean mobility, and energy poverty reduction.

Deliverable 3 - Report on eligible measures and investments to be considered under the Social Climate Plan outlines the approach used to shortlist and characterise measures and investments (M&Is), analyses their expected impacts, describes their milestones and targets, identifies their alignment with other national initiatives and provides recommendations to support their effective implementation and monitoring.

*K*ey steps undertaken to derive the shortlist of M&Is (at MS level)

- Screening of the EU long list developed within this project: The SCP Country Team started with the screening of the EU list of M&Is and related consultations with the national stakeholders on the Slovak context. As a result, the pre-selected M&Is were presented and discussed during the workshops in November 2024 with the members of the SCP Working Groups on buildings and transport.
- Preparation of the national long list: At the end of 2024, the national long-list of M&Is was provided to the BA and subsequently shared with the members of the SCP Working Group for comments. In this respect, the SCP Country Team received feedback from various stakeholders either in written or oral form during various bilateral meetings or DLV 2 Validation Workshop at the beginning of 2025.
- Selection of the M&Is*:* Afterwards, the BA consulted relevant ministries on their priorities. Therefore, a decisive meeting with representatives of NIKA, ministries on Economy, Environment and Transport and Technical Support Instrument (TSI) Country Team was held in March 2025 regarding the selection of the most suitable M&Is for full characterisation.
- Analysis of the selected M&Is: Later on, the TSI Country Team and core partners (OEKO) consulted concerned ministries and regional authorities for input to the preparation of the tables on full characterisation of selected M&Is.

Analysis and overall impact of selected M&Is

This report is focused on the following M&Is concerning:

a) Buildings component:
   i. Family houses renovation;
   ii. Support for apartment buildings renovation;
   iii. Renovation of social housing in apartment buildings and renovation of social services facilities managed by municipalities and non-public providers;
   iv. Advice, professional assistance, capacity building and education.

b) Transport component:
   i. Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points;
   ii. On-demand transport;
   iii. Provision of discounts on public transport fare for citizens in material deprivation;
   iv. Investments in railway infrastructure.;
   v. Building bicycle infrastructure.

Buildings component

The selected M&Is in the building sector are mainly focused on building renovation (mainly on the worst performing buildings) and the necessary assistance, support and information. The aim of the M&Is is to reduce energy use, fossil fuel consumption and CO_2 emissions through deep renovation (EPBD definition), often achieved via a phased approach (defined as staged deep renovation in the EPBD), with key steps documented by a Building Renovation Passport. This will ensure the principle of "energy efficiency first". Often the process starts with insulation measures, followed by the replacement of heating systems and RES and control systems installation.

The target groups covered by selected M&Is are vulnerable households in family houses, apartment buildings, social housing and social service facilities, as well as vulnerable micro-enterprises operating in family houses.

The long-lasting investments in building renovations will be accompanied by advice, professional assistance and help provided within the framework of the one-stop-shop (OSS) established under the EPBD and EED. This will be combined with the community and social work as well as capacity building of local government officials and other professionals involved in SCF implementation. The aim is to complement the OSS services with assistance and tailored advice to vulnerable groups (households, social housing entities, homeowners' associations and micro-enterprises), free provision of energy certificates and renovation passports to vulnerable households. The aim of this M&Is is to increase the renovation rate and

quality of renovation; support the implementation of the SCF investments; reduce CO_2 emissions and reduce energy poverty through proper renovation, ensuring real savings in energy costs.

Buildings M&Is are expected to reach 78 600 households. Of these:

- the number of energy-vulnerable households significantly affected by the ETS2 expected to be lifted out of vulnerability by the assessed M&Is is estimated to range between 41 300 and 54 100.
- the number of energy-poor households expected to be lifted out of poverty by the assessed M&Is is estimated to range between 41 300 and 57 000.

To arrive at a total number of vulnerable households according to Art. 2(10), the overlaps between *energy poverty* and *significantly affected by ETS2* need to be taken into consideration, for example in the cases of:

- a near perfect overlap between the two groups (all energy poor households are also significantly affected by ETS2) suggests that a range of between 41 300 000 and 57 000 households would not be vulnerable or considered energy poor after the M&Is.
- a minimal overlap (most of the beneficiaries are either energy poor or significantly affected by ETS2, but not both) suggests that all households reached by the M&Is (78 600) would not be vulnerable or considered energy poor after the M&Is.

While it is not possible to precisely estimate this overlap, we expect high overlap in countries with a high proportion of fossil heating and low overlap in countries with a low proportion of fossil heating. A qualitative assessment of the overlap suggests a medium to high level of overlap between *energy poor* households and vulnerable households significantly affected by ETS2.

The estimates are based on the number of households likely to be reached through the proposed M&Is, the share of those households reached that are energy poor or significantly affected by ETS2, and the share of those reached and significantly affected by ETS2 that may be lifted out of vulnerability because of the measure or investment.

Transport component

Selected M&Is in the transport sector are mainly aimed at public transport. They are focused on the accessibility, availability, affordability as well as the quality of public transport. Transport indicators can be improved by the expansion of public transport services in remote, sparsely populated areas (which currently have poor connection) and transport-poor regions. Another selected approach is to improve the quality of public transport vehicles and fleets and shift to zero-emission vehicles. Vehicles for on-demand transport will also be zero-emission. The support for the lowest income households will be provided by discounts on travel fares and

beyond the existing system. The last element of the transport component is investments in the quality of railway infrastructure, which will improve the accessibility of railway transport in the eastern part of Slovakia. The combination of the above-mentioned M&Is is addressing transport vulnerability by: (1) specifically targeting the economic situation of citizens and affordability of transport (and thus providing fulfilment of basic travel needs), and (2) improving the availability of public transport in transport poor remote areas via on demand transport services, and thus providing options and less expensive alternative for private car use for connection to the economic centres, school, work, etc. From an economic standpoint, supporting the transition to battery electric vehicles in public transport will benefit all passengers by providing financially accessible transport alternatives – particularly those with low incomes, who are less likely to own a private vehicle.

One of the investments considered aims at the promotion of active non-motorised transport by providing funding for building cycling and related infrastructure, including technical support for the preparation of the projects. This investment´s goal is the extension of the length of bicycle path in Slovakia for daily use and commuting. It also provides an alternative for the "last mile" travelling and connection to the public transport.

Transport M&Is are expected to reach 140 000 transport users (households). Of these:

- the number of transport-vulnerable users significantly affected by the ETS2 expected to be lifted out of vulnerability by the assessed M&Is is estimated to range between 41 700 and 104 100.
- the number of transport-poor users (households) expected to be lifted out of poverty by the assessed M&Is is estimated to range between 24 600 and 52 200.

To arrive at a total number of vulnerable transport users according to Art. 2(10), the overlaps between *transport poverty* and *significantly affected by ETS2* need to be taken into consideration, for example in the cases of:

- a near perfect overlap between the two groups (all transport poor households are also significantly affected by ETS2) suggests that a range of between 41 700 and 104 100 transport users would not be vulnerable or considered transport-poor after the M&Is.
- a minimal overlap (most of the beneficiaries are either transport poor or significantly affected by ETS2, but not both) suggests that a range of between 66 200 and 140 200 transport users would not be vulnerable or considered transport-poor after the M&Is.

While it is not possible to precisely estimate this overlap, we expect high overlap in countries where lower income deciles show high car ownership rates, and live in areas poorly served by public transport, such as rural areas. A qualitative

assessment of the overlap suggests a low to medium level of overlap between *transport poor* households and households significantly affected by ETS2.

These estimates are based on the number of transport users likely to be reached through the proposed M&Is, the share of those households reached that are transport poor or significantly affected by ETS2, and the share of those reached and significantly affected by ETS2 that may be lifted out of poverty and/or vulnerability because of the measure or investment.

For both, buildings and transport components, the involvement of socio-economic partners, including civil society representatives (through thematically relevant civil society associations in the social and environmental fields or their platforms) is important There have been several consultations with socio economic partners as a part of this TSI project (during bilateral meetings as well as during events organised to gather feedback on DLVs 2 and 3) and NIKA, as the BA authority responsible for the SCP is conducting its own consultations on draft SCP measures.

Complementarity (consistency / coherence of the selected M&Is) with other relevant national plans and funds)

Buildings component

Complementarity is ensured by linking to existing schemes, relevant national plans and funds, in particular the ones listed below.

- The *'Obnov dom mini'* scheme, which is financed from the Recovery and Resilience Plan (chapter REPowerEU) in the time horizon until the end of 2025. Afterwards, the financing will continue from the Modernisation Fund. The complementarity to the M&Is *Family house renovation* is ensured by the extension in time, higher ambition level, and the provision of 100% grants to vulnerable groups. Further financing will also extend the target group to vulnerable households and vulnerable micro-enterprises and the worst-performing residential buildings (EPBD Art.3 and 9).
- The ŠFRB provides favourable loans for renovation of residential buildings, social housing and social services facilities. The complementarity with ŠFRB scheme is the combination of loans with grants (or loan remission) that is more suitable for vulnerable groups.
- Family houses and remaining non-renovated apartment buildings renovation is a priority in NECP.
- Renovation of the worst-performing residential buildings will contribute to obligations following from EPBD implementation.
- The expansion of one-stop-shops (OSS) services with tailored advice to vulnerable households is in line with the revised EPBD implementation of the Art. 18 and EED Art. 22(6). The measure provides energy certificates and building renovation passports for free is in line with a revised EPBD Art. 12 and 19.

Transport component

The selected M&Is are complementary to existing schemes already in place, particularly to the ones listed below.

- There is an existing programme that provides discounts for public transport in the Slovak Republic. Varying discounts are offered to children up to 6 years, students up to 26 years, pensioners above 62 years, and persons with disabilities. The existing system is funded by the government budget and the budgets of self-governing regions and municipalities. The complementarity of the proposed measure is in the extension of the existing scheme of discounts to low-income citizens considered to be in material deprivation.
- Slovak government and EU funding (Programme Slovakia, Recovery and Resilience Plan, CEF) are currently in place to finance railway infrastructure. The funds are used in various programs, the most important is the railway infrastructure development including reconstructions and modernisation of tracks, building new rail urban tracks, development of bicycle infrastructure.
- The Recovery and Resilience Plan for Slovakia is funding railroad vehicles and road vehicles. The component "Sustainable transport" includes a program for obtaining new railway vehicles and renovation of railway vehicles. Measure 2.8.1 of the Programme Slovakia is used for funding road vehicles.
- Slovak government financing and EU funding (Programme Slovakia, Recovery and Resilience Plan) for cycling infrastructure.

Recommendations for effective monitoring and implementation

Buildings component

The inter-institutional cooperation between several ministries (the Ministries of Economy, Transport end Environment) and agencies (SAŽP, SIEA) starting from the very beginning will be required for an effective monitoring and implementation. Moreover, the introduction of some elements resulting from the EPBD and EED implementation is necessary, for example new indicators in EPC, legal adoption of Building Renovation Passport and OSS. It is well recommended to develop (i) a specific methodology useful for checking the cost savings after renovation and (ii) guidelines to keep quality and decrease costs for Building Renovation Passports, for example by providing typified solutions.

Transport component

Effective monitoring and implementation need to be ensured by the close cooperation at the national level (by the Ministry of Transport, Office of the Labour, Social Affairs and Family, NADA, ŽSR ZSSK) and at the regional level (self-governing regions, municipalities, regional providers of transport, NGOs providing on

demand transport, regional offices of the Office of the Labor, Social Affairs and Family). The cooperation of other institutions at national and regional level is also crucial, mainly those dealing with the Environmental Impact Assessment process and with the permitting process for construction. A special attention should be paid to the process of public procurements (for vehicles, charging stations, rail infrastructure). Role of municipalities and self-governing regions is crucial for the building the cycling infrastructure.

The M&Is selected for further analysis target buildings and transport, with a focus on their impact. The table below outlines the main objectives, estimated costs, and funding sources, categorised into buildings and transport.

Table 1-1 Overview Table of M&Is selected for further analysis

Area of intervention	Total costs (absolute and % of total funding) by funding source	Overview of main M&Is planned	Objectives of the M&Is	Impact: Reduction of vulnerable households and vulnerable transport users (unit: households)	Impact: CO_2 emissions reduction during SCP implementation period ($ktCO_2e$)
Buildings sector	EUR 1 176.45 million of which EUR 882.34 million (75%) is SCF and EUR 294.11 million (25%) is national funding	1. Family houses renovation	1. The objective of the M&Is is to provide grants for renovation of family houses owned by vulnerable households and micro enterprises to significantly increase energy performance, reduce fossil fuel use, CO_2 emissions and energy costs of the worst-performing buildings. This may also be a step-by-step renovation based on the Building Renovation Passport. The M&Is will be an extension of the '*Obnov dom*' scheme time period and ambition level to deep renovation as a staged, step-by-step deep renovation with typically 2 renovation M&Is per vulnerable household based on renovation passport (envelope improvement, windows change and an additional thermal insulation as the first steps and technical systems including RE if necessary).	All measures, thousands households: - if max overlap: 41.3 - 57 - if min overlap: 82.6- 78.6	251.5

Area of intervention	Total costs (absolute and % of total funding) by funding source	Overview of main M&Is planned	Objectives of the M&Is	Impact: Reduction of vulnerable households and vulnerable transport users (unit: households)	Impact: CO_2 emissions reduction during SCP implementation period ($ktCO_2e$)
		2. Support for apartment buildings renovation	2. Support for the apartment buildings renovation by providing grants to compensate for the increased payment to the *Operation, maintenance and repair fund* related to the apartment building renovation with the aim of increasing the renovation rate of the approximately 25 % of unrenovated apartment buildings and the aim of boosting the completion rate of partially renovated apartment buildings. Target group are vulnerable households – flat owners, with the aim of increasing the renovation rate of the remaining approximately 25% of unrenovated or partly renovated apartment buildings (e.g. insulation of only the side facades) due to the lack of 2/3 votes of flat owners for taking a loan concerning renovation.		61.1
		3. Renovation of social housing in apartment buildings and renovation of social	3. The objective of the combination of grants with loans for the renovation of social housing in apartment buildings and the renovation of social		157.1

Area of intervention	Total costs (absolute and % of total funding) by funding source	Overview of main M&Is planned	Objectives of the M&Is	Impact: Reduction of vulnerable households and vulnerable transport users (unit: households)	Impact: CO_2 emissions reduction during SCP implementation period ($ktCO_2e$)
		services facilities managed by local governments and non-public providers	services facilities managed by municipalities and non-public providers is to significantly enhance the energy performance, reduce fossil fuel use, CO_2 emissions and energy costs of the worst-performing buildings. This may also be a step-by-step renovation based on Building Renovation Passport. This M&Is makes it possible to carry out structural modifications to existing apartments, if they are, for example, "vacated", thus enabling their reuse.		
		4. Advice, professional assistance, capacity building and education	4. The objective of the package of M&Is is to provide advice on how to increase the renovation rate in dwelling occupied by vulnerable households and micro enterprises and quality of renovation, support the implementation of the SCF investments and in this way reduce fossil fuel use, CO_2 emissions and reduce vulnerability and energy poverty.		62.3

Area of intervention	Total costs (absolute and % of total funding) by funding source	Overview of main M&Is planned	Objectives of the M&Is	Impact: Reduction of vulnerable households and vulnerable transport users (unit: households)	Impact: CO_2 emissions reduction during SCP implementation period ($ktCO_2e$)
			Tailored advisory services will include first-contact advice by existing field social workers; technical advice focused on vulnerable groups and the provision of energy certificates and building renovation passports free of charge.		
Transport	EUR 561.45 mil. of which EUR 421.09 (75%) is SCF and EUR 140.36 (25%) is national funding	5. Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points.	5. High quality of public transport as alternative for using a car. Replacement of the current public transport vehicle fleet to a zero-emission fleet and charging points.	All measures, thousands transport users: - if max overlap: 41.7- 104.1 - if min overlap: 66.2- 140.2	35.4
		6. On-demand transport	6. Providing funding for on-demand public transport to improve the accessibility of connections for citizens, mostly in underserved rural and remote areas and regions, thereby targeting vulnerable transport users with limited transport options.		2.9

Area of intervention	Total costs (absolute and % of total funding) by funding source	Overview of main M&Is planned	Objectives of the M&Is	Impact: Reduction of vulnerable households and vulnerable transport users (unit: households)	Impact: CO_2 emissions reduction during SCP implementation period ($ktCO_2e$)
		7. Provision of discounts on public transport fare for citizens in material deprivation	7. Providing funding for discounts on the fare for citizens in material deprivation and thus improving the affordability of the public transport for the poorest part of the population.		16.9
		8. Investments in railway infrastructure	8. Improvement of the quality, accessibility of public transport options resulting from the possible increase and enhancement of connections via the reconstruction of five railway lines/tracks in transport-poor regions.		0.7
		9. Scheme for building bicycle infrastructure	9. Providing funding for the extension of bicycle paths in Slovakia for daily use and commuting purposes. Support for active mobility and non-motorised mode of transport.		634
Temporary direct income support	N/A	N/A	N/A	N/A	N/A
Technical assistance (Article 8(3))	EUR 51 mil (2.5 % of total budget)	TBD by BA	N/A	N/A	N/A

Area of intervention	Total costs (absolute and % of total funding) by funding source	Overview of main M&Is planned	Objectives of the M&Is	Impact: Reduction of vulnerable households and vulnerable transport users (unit: households)	Impact: CO_2 emissions reduction during SCP implementation period ($ktCO_2e$)
Contribution to the TSI (Article 11(3))	N/A	N/A	N/A	N/A	N/A
Contribution to the MS compartment in Invest EU (Article 11(3))	N/A	N/A	N/A	N/A	N/A

2. Introduction

This is the Deliverable 3 report for the project *Support to the Preparation of Social Climate Plans, for Slovakia*. This project is funded by the European Union via the Technical Support Instrument and is managed by the EC Task Force for Reform and Investment (SG REFORM). The contractor (a consortium led by Trinomics which includes Ecorys, E3-Modelling, IEECP, Oeko-Institut, Copenhagen Economics, Sweco Finland, EpV, EGÚ Brno, ENBEE, ELLE, as well as several independent consultants) support nine MS (Belgium, Croatia, Czechia, Denmark, Finland, Latvia, Lithuania, Romania, and Slovakia) in the development of their national SCPs. These plans set out national approaches to reduce the potential negative impacts of the introduction of the Emissions Trading System 2 (ETS2) on vulnerable households, transport users and micro-enterprises.

This report provides an overview of the M&Is to be considered for SCP. This report presents the results of activities carried out during the third phase of the project.

Following the structure and guidelines of Annex V of the SCF Regulation, this report outlines the M&Is selected for further analysis for buildings, transport, and direct income support. It also details the methodology used to select these M&Is.

The report is organised as follows:

Report chapter	Description
Chapter 1	Executive Summary
Chapter 2	Introduction
Chapter 3	Methodology – Shortlisting of M&Is, including both a general and national approach
Chapter 4	Analysis of selected M&Is
Chapter 5	Considerations at the plan level
Chapter 6	Recommendations
Annex A	Summary of stakeholder consultation
Annex B	Full characterisation of the selected M&Is
Annex C	Further methodological details

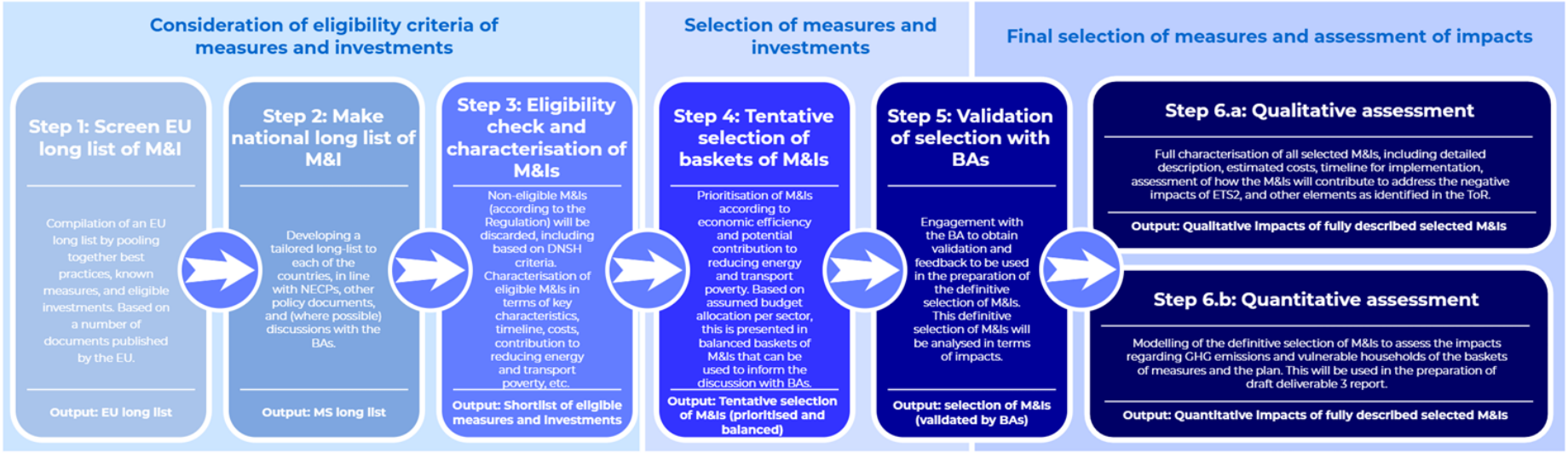
During this assessment, we encountered several challenges that should be carefully considered when interpreting the results. As a continuation from DLV 2, data limitations posed a significant constraint, as relevant data gaps exist, which restricted the depth and precision of insights, especially related to the estimated impact of some of the M&Is.

3. Methodology

3.1. Shortlisting of eligible M&Is and selection of M&Is for further analysis and possible incorporation in the Plan

The work of Deliverable 3 is structured around the requirements of Annex V of the SCF Regulation and follows a six-step process to ensure a systematic selection of M&Is to be analysed in further detail. The aim of this analysis is to provide the required information that is needed for their incorporation in the Plan according to Annex V of the Regulation. An overview of the six-step process is provided in the figure below.

Figure 3-1 Methodology for Deliverable 3



This approach sought to sequentially narrow down a wide range of potential M&Is to a selection of M&Is that are suitable for the national context and that could potentially be included in the Plan, as represented in the figure below.

Figure 3-2 Process of shortlisting and selecting M&Is for further analysis

Step 1 involved screening the EU list of M&Is drawing from best practices, known measures, and eligible investments identified in SCF guidance, best practices documentation, previous policy frameworks and related consultations with the national stakeholders on the Slovak context.

In **Step 2**, the SCP Country Team developed a tailored long list, drawing from the EU list and from national plans and policy contexts (e.g. the National Energy and Climate Plans, among other policy documents).

Step 3 focused on the eligibility check and (partial) characterisation of the M&Is, informed by interactions with Beneficiary Authorities (BA) and national plans such as NECPs and policy documents. During this step, non-eligible M&Is were discarded to refine the selection. The goal was to narrow down the long list to a short list of M&Is at the MS level. At the end of 2024 (23 December), the national long-list of M&Is was provided to the BA and subsequently shared with the members of the SCP Working Group for reactions. Further feedback on national long-list of M&Is was obtained during various online meetings including D2 Validation workshop (January-February 2025) with representatives of socio-economic partners, local and regional authorities and other state bodies (see Annex A).

In **Step 4,** M&Is were tentatively prioritised using a multi-criteria analysis (MCA), which assessed the ETS2 impacts mitigation potential of the M&Is on vulnerable groups, their cost-efficiency, and their potential to bring reductions of fossil energy use and emissions (qualitative), as well as their potential Gross Value Added and employment impacts on the national economy (quantitative). The two latter indicators aimed at indicating to the BAs with an indication of which M&Is may provide wider benefits to the economy, besides addressing ETS2 impacts. The resulting outputs were then submitted in February to the EC for validation.

Step 5 involved continued consultations with national authorities to discuss the prioritised M&Is and align them with national priorities and funding structures. The MCA provided a structured basis for these discussions, helping to frame trade-offs between cost-effectiveness, feasibility, and policy alignment. A consultation to select the most suitable M&Is for full characterisation with the BA and three main ministries on Economy, Environment and Transport was held on 13th March, 2025. As a result, shortlisted M&Is intented for a further analysis, were delivered to the BA on 14th March, 2025 Nevertheless, consultations during the review and revision of DLV 3 M&Is have led to additional proposals submitted by stakeholders and the BA.

<u>Buildings component M&Is</u>

Slovak BAs key stakeholders communicated the following key objectives for M&Is developed in this report:

- The initial requirement of the Ministry of Economy of the Slovak Republic and also the Ministry of Transport of the Slovak Republic from the first discussions in 2024, which we tried to meet, was the **support of as many vulnerable households as possible**. The Ministry of Economy of the Slovak Republic even proposed to apply only one or two measures in thermal protection in order to support more households.
- The focus of investments should be on the most vulnerable households as well as **the worst performing buildings.** This is in line with the draft definition of a vulnerable household provided by the Ministry of Economy of the Slovak Republic, which assumes that a vulnerable household "live in a dwelling with **excess energy consumption**". This is in line with the definition in SCF Regulation that connects 'vulnerable households' with the lack of the means to renovate the building they occupy. Based on this the installation of some technologies (e.g., heat pumps or PVs) is not possible without previous reduction in energy consumption (e.g. via improvement of the building envelope).

Discussions with the Ministry of Economy were held throughout the process of deleloping and analysisng M&Is for DLV 3. The section below presents the M&Is that were proposed by the Ministry of Economy during the consultations after the presentation of DLV 3 to stakeholders as well as how they were implemented in the DLV 3 report.

- **Direct income support**
  - Excluded from the final list of M&Is by the Ministry of Economy
- **Broad based support for vulnerable micro-enterprises** – this M&Is was proposed as a follow up to the existing Green Enterprises programme which is implemented by SIEA. It focuses on supporting the development of EAs in conjunction with the installation of RES in SMEs including for the manufacturing technologies.
  - After analysis and consultation with the Expert team, only M&Is that will directly reduce the specific emissions connected to buildings are eligible. The renovation of buildings owned by microenterprises is included in Investment 1: Family houses renovation (see Section 4.2.1). Support for the production processes of microenterprises has not been included.
- **Support for the decarbonisation of heating and cooling at the community level** – This M&Is was proposed to provide contributions for the installation of renewable energy-based heating, cooling and electricity sources. Support would be provided to vulnerable households owning **family houses** (especially in connection with the Green for Households and Green Solidarity projects); **social service facilities** established by local government authorities; **communities producing energy** from renewable energy sources and **energy communities**. Support would also be provided for the construction of renewable energy-based **district heating systems** at

the community level **operated by local governments**, including support for connection to smart grids and district heating networks.

- **The installation of renewable energy-based heat, cooling and electricity sources is part of the Investment 1**: **Family house renovation** where requested measures are part of building renovation. The potential link to scheme Green Solidarity (implemented by SIEA) in the implementaton phase is explicitely mentioned, see Table 0-1 in Annex B detailing Investment 1: *"The existing scheme Green Solidarity (SIEA), can support the installation of systems based on renewable energy sources in renovated family houses, if it is in line with the Renovation passport and if this investment follows prior improvement of the building envelope. The qualitative improvement of the national project Green Solidarity will be achieved by expanding the list of supported devices to include heat pumps and energy storage systems. In addition, households will be able to apply for support for the installation of photovoltaic panels, solar collectors and biomass boilers…".*
- **Decarbonisation of heating and cooling** is included in the **Investment 3: Renovation of social housing and social services facilities** in order to ensure the focus on vulnerable households. The possibility to develop the network based on RES or connect to such network is explicitly mentioned in Section 4.2.1: "*As heating system renovation the construction of small energy community (for replacement of heating systems) based on RES can be financed as well within this investment, including the support for the connection to smart grids and district heating networks*" and see Table 0-3 in Annex B detailing Investment 3: *"The construction of small community heating systems based on RES for group of social housing or social services buildings can be included operated by local governments, including support for connection to smart grids and district heating networks as a part of deep renovation (change of heating system) if relevant".*

During the consultations with the Ministry of Economy on DLV 3, it was agreed that measures would be developed by the Ministry of Economy itself. These measures were not included in the DLV 3 report for either for procedural reasons (the Ministry of Economy submitted them after the deadline, or because they are already incorporated into proposed M&Is (Investments 1 and 3) as they should be integrated with other measures in the view of the expert team (e.g. introduction of photovoltaic systems or heat pumps should only be for buildings which have underwent envelope improvement). Some the M&Is proposed by the Ministry of Economy fall outside the scope of the SCP eligibility in expert opinion of the project team (e.g. support for the production technologies for microenterprises).

Transport component M&Is

While most of the required transport M&Is have been elaborated by the SCP Country Team in Deliverable 3, the M&Is below proposed by the Ministry of the Economy have not been elaborated due to the following reasons:

- **The M&Is aimed at developing charging infrastructure** – Ministry of Transport proposed a wide ranging broadly designed investment from a geographical point of view (TEN-T roads, national importance roads and regional charging points) and from the users' view (the inclusion of private cars, LDVs, and trucks). This firstly created administrative targeting and eligibility criteria challenges. Secondly, it is considered to be a lower priority as even the existing charging infrastructure is not fully utilised and there are other EU funding sources for its development.
- **The M&Is to provide support for social leasing of electric vehicles** - Support for electric vehicles presents a costly option for its users and it is likely that the targeted group, vulnerable transport users, may not even be able to benefit from this M&Is. As a result, the expected benefits would be mostly available for a small group of users, rendering this M&Is as less effective than its proposed alternative – on-demand transport (Measure and Investment 6, see Section 4.2.2). As agreed during consultations throughout the long-listing and short-listing process, focus was placed on public transport solutions. These are viewed as more beneficial and will target a larger group of vulnerable transport users than the support of individual road transport use. Within M&Is that favour individual transport use, the definition of vulnerable transport users and their targeting, and administrative designation seem problematic.

The Ministry of Economy proposed the abovementioned M&Is regarding transport only during the workshop presenting DLV 3 held on 30th April 2025. This meant that there was insufficient time to elaborate and analyse such a comprehensive proposal in the final version of DLV 3, especially since no prior analysis on these types of M&Is was conducted due to the agreed focus on public transport M&Is.

Following a national stakeholder consultation on the outputs of the draft version of Deliverable 3 and the request from the BA, an additional investment in the transport component – Investment 9 *Scheme for building bicycle infrastructure*, which had originally been part of the national long-list, was analysed. This was possible due to pre-exisiting analysis that had been gathered during the short-listing process as well as active and timely collaboration with relevant stakeholders, in particular the NGO Cyklokoalícia, and the Ministry of Transport.

Finally, **Step 6** required a full characterisation assessment of the M&Is selected for further analysis, detailing their expected impact, additionality, implementation framework, compliance with SCF requirements, and intensive consultations with concerned ministries and regional authorities. This comprehensive characterisation is included in the Annex B.

The selection of M&Is and the analysis deriving from it are presented to the national authorities in this deliverable as input for their own final selection for inclusion in the Plan. The final selection then rests with the national authorities preparing the Plan and is subject to the feedback from the stakeholder consultation process, and to negotiations with the Commission after submission.

3.2. Characterisation of selected M&Is

To ensure consistency across all MS under this TSI, the full characterisation of M&Is followed a structured template (as can be seen in Annex B). This structured template largely follows the outline of Annex V of the SCF Regulation to ensure that all the information that is required for the Plan is provided for each of the analysed M&Is. Similarly, the structured template and its instructions also incorporated important elements outlined in different Commission documents, such as the Guidance on the Social Climate Plans, the Do No Significant Harm (DNSH) technical guidance to the SCF (and its annexes), as well as recommendations from the Commission and advice given during the course of the project.

Teams drew on information from DLV 2 to establish the context and eligibility chapters of the structured template. This provided a foundation for assessing how each M&Is aligns with SCF requirements. A key focus was placed on the topics of i) targetedness of M&Is ii) additionality iii) DNSH principle, as well as iv) coherence with other EU and national funds, programmes and plans. In relation to targetedness of M&Is, results of DLV 2 were taken into account and additional quantitative and qualitative analysis was carried out. On additionality and coherence, the Expert Team provided in-depth guidance to country teams. This guidance clarified qualifying categories, including quantitative increase, extension in time, qualitative change, and overall scaling up, and how the M&Is interact with other relevant programmes.

A structured set of screening questions was used to assess whether M&Is met these criteria or should be ruled out. Compliance with the DNSH principle was verified largely based on the technical guidance and comparison with the categories of M&Is outlined in the annexes, and complemented with own analysis were needed. Finally, cost estimates were developed using E3M modelling and available financial data disaggregated at MS level. Where available, country teams incorporated additional data sources to supplement the characterisation, such as information from NECPs and concerned Slovak ministries or regional authorities, national statistics on energy and transport poverty and existing schemes/programmes, or previous policy evaluations.

Given that final funding decisions are still pending, the characterisation process remains flexible within the context of establishing a final SCP. BAs can adjust budget allocations, which may impact targets and expected results. If a M&Is's funding is reduced, its scale, coverage, or ambition will need to be revised

accordingly. The characterisation provides the necessary building blocks to account for these potential adjustments.

See Annex C for cost methodology details.

3.3. Measuring impacts of selected M&Is

The impact assessment of selected M&Is was conducted using a combination of qualitative and quantitative methodologies to evaluate their effectiveness in mitigating the impacts of ETS2 on vulnerable groups and their contribution to SCP objectives. The assessment began with the identification of key performance indicators (KPIs), ensuring alignment with Annex IV of the SCF Regulation. Metrics included reductions in the amount of vulnerable households and individuals, reductions in household energy costs, improvements in energy efficiency, CO_2 emission reductions, and socioeconomic benefits for vulnerable groups.

The impact assessment utilised data from established modelling tools (PRIMES and GEM-E3 models, SEEK-EU model), data from desk research and other sources to estimate costs, and energy and emissions impacts. Additionally multipliers were derived from the modelling tools to provide a high-level estimate of economic (gross value added (GVA) and employment) impacts.

For building-related M&Is the energy savings were calculated using a bottom-up methodology that involved calculating the (final) energy consumption of affected households prior to the M&Is implementation and the one after the intervention. The technology assumptions associated with the different technologies (e.g. energy efficiency of the equipment) were then introduced to define the energy consumption after the intervention. The emissions saved through the intervention were calculated based on the emission factor and the calculated energy consumption prior and after the intervention. The above refer to energy and emissions savings at the premises of the household affected (i.e. emissions saved are calculated based on the emissions factor of the equipment used for the specific uses in the households). In certain cases, e.g. for the case of solar PV and batteries, where the energy saved is electricity, the emissions saved have been calculated from the energy system's perspective (i.e. emissions saved from the need to produce less electricity in the supply side). Similarly, for transport-related M&Is energy and emissions savings are estimated with the use of a bottom-up methodology that considers (final) energy consumption of affected households prior to the M&Is implementation and the one after the intervention. In certain cases the M&Is may interact with each other, but this is not taken into account. In the case, for example, of EV charging points we assume that an uptake of EVs is enabled due to the installation of charging points, and attributed the savings from the change in vehicle stock from ICs to EVs to the charger.

4. Analysis of selected M&Is

4.1. M&Is shortlist and selection

The step by step process led to a selection of M&Is for further analysis. This selection was informed by a multicriteria analysis (MCA) performed by the project teams, as well as direct feedback from the BA and concerned stakeholders. This chapter outlines the outcomes of that process for each of the components of the plan, outlining the M&Is considered, their evaluation against the criteria, the selection, and the justification for the selected M&Is.

4.1.1. MCA analysis

This chapter contains the MCA results, as well as the justification for the M&Is selected within the buildings and transport components. More details on the MCA analysis are provided in Annex C

Buildings component

Table 4-1 Justification and MCA results for the buildings component

M&Is	Selected?	Justification (if selected for further analysis)	Mitigating ETS2 impact on vulnerable groups	Cost efficiency	Reduction in fossil energy use /emissions	GVA per year (EUR million)[1]	Employment (jobs)[2]
Family houses renovation	Selected, Ministerial priority	This M&Is is an extension of the successful scheme for the renovation of family houses '*Obnov dom mini*' after its expiry. It provides grants for typically 2 renovation M&Is per vulnerable household as the first steps of a staged, step-by-step deep renovation, with the aim to decrease fossil fuel use and energy costs. The focus is on the worst performing buildings.	High	Medium	High	0.568	18.491
Support for apartment buildings renovation	Selected, Ministerial priority	The aim of the M&Is is to provide vulnerable households (flat owners) with a grant to compensate for their share of the loan for the renovation of the whole apartment building in order to facilitate the decision-making process on	High	Medium	High	0.568	18.491

[1] Annual additional GVA generated by EUR 1 mil of investment for energy saving measures (MEUR).
[2] Annual additional employment generated by EUR 1 mil of investment for energy saving measures.

M&Is	Selected?	Justification (if selected for further analysis)	Mitigating ETS2 impact on vulnerable groups	Cost efficiency	Reduction in fossil energy use /emissions	GVA per year (EUR million)[1]	Employment (jobs)[2]
		increasing the energy efficiency of apartment buildings. The focus is on the worst performing buildings, unrenovated or partially renovated apartment buildings (e.g. insulation of only the side facades)					
Renovation of social housing in apartment buildings and renovation of social services facilities managed by local governments and non-public providers	Selected, Ministerial priority	This M&Is aims to support a deep renovation or staged deep renovation of social housing (apartment buildings) and social services facilities managed by local governments and non-public providers. The focus is on the worst performing buildings.	High	Medium	High	0.614	20.128
Advice, professional assistance, capacity building and education	Selected, Ministerial priority	This M&Is aims to provide advice and professional assistance within the framework of one-stop-shops (OSS) created under EPBD and	High	High	Medium	0.727	21.774

M&Is	Selected?	Justification (if selected for further analysis)	Mitigating ETS2 impact on vulnerable groups	Cost efficiency	Reduction in fossil energy use /emissions	GVA per year (EUR million)[1]	Employment (jobs)[2]
		EED. The goals are to complement OSS services for vulnerable groups (households and micro-enterprises) via tailored advice, the provision of energy certificates and building renovation passports free of charge. This M&Is will increase the rate and quality of renovation and is necessary for other M&Is implementation.					
Construction of social housing	Non-selected	Construction of social housing – apartment buildings owned by local governments and by non-profit sector or transformation of non-residential buildings into residential - social housing (NZEB/ZEB level).					
Self-help construction of family houses	Non-selected	Based on combination of grants and loans. There is broadly defined similar M&Is, mostly for self-help construction of individual houses in rural areas by marginalised Roma communities in the Priority Objective 4 (PO4). A specific measure RSO4.3: 'Promoting the socio-economic inclusion of marginalised communities, low-income households and disadvantaged groups, including persons with special needs, through integrated actions including housing and social services'					
Decarbonisation of heating at the community level	Non-selected	Replacement of community-scale fossil-fuel heating systems and support for connection to and development of small community level heating networks.					
Support of renewable energy sharing	Non-selected	Support for development of renewable energy communities sharing solar energy (PV)					

M&Is	Selected?	Justification (if selected for further analysis)	Mitigating ETS2 impact on vulnerable groups	Cost efficiency	Reduction in fossil energy use /emissions	GVA per year (EUR million)[1]	Employment (jobs)[2]
and energy communities							
Public-private partnerships	Non-selected	Renovation loans, guarantee funds, energy performance contracting, pay-as-you-save financial schemes with financial institutions and private investors					
Private sector engagement in financial support for compliance with minimum energy performance standards	Non-selected	Private sector engagement in financial support for compliance with minimum energy performance standards (EPBD Art. 9)					
Private sector engagement in support for deployment of solar energy	Non-selected	Support for deployment of solar energy (EPBD Art. 10) for vulnerable groups (involvement of private sector - loans, microloans for PV, involvement of distribution companies in PV storage).					
Fiscal / Regulatory reforms	Non-selected	Fiscal incentives, reduced tax rates on renovation works and materials, on-tax schemes, on-bill schemes regulatory reforms to facilitate building renovations					

Transport component

Table 4-2 Justification and MCA results for the transport component

M&Is	Selected	Justification (if selected for further analysis)	Mitigating ETS2 impact on vulnerable groups	Cost efficiency	Reduction in fossil energy use /emissions	GVA per year (EUR million)[3]	Employment (jobs)[4]
Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Selected, Ministerial Priority	The scheme will provide grants for the purchase of zero emission vehicles as well as the development of charging points for vehicles in depots and at final stops/terminals. The M&Is's objective is to improve the quality of the fleet of vehicles in public transport as well as provide zero emission transport options.	Medium	Low	High	0.515	17.109
Provision of discounts on public transport fare for	Selected,	The aim of the M&Is is to provide	Medium	Medium	Low	0.675	19.408

[3] Annual additional GVA generated by EUR 1 mil of investment for energy saving measures (MEUR).
[4] Annual additional employment generated by EUR 1 mil of investment for energy saving measures.

M&Is	Selected	Justification (if selected for further analysis)	Mitigating ETS2 impact on vulnerable groups	Cost efficiency	Reduction in fossil energy use /emissions	GVA per year (EUR million)[3]	Employment (jobs)[4]
citizens in material deprivation	Ministerial Priority	affordable public transport services for the lowest income group of citizens in Slovakia, those experiencing material deprivation. The M&Is targets mainly citizens in rural and sparsely populated regions with the need of commuting and traveling to economic centres.					
On-demand transport	Selected, Ministerial Priority	The M&Is is targeted at transport-poor areas and regions, and at households or individuals in rural and semi-urban areas with bad or insufficient	High	Medium	Low	0.679	20.543

M&Is	Selected	Justification (if selected for further analysis)	Mitigating ETS2 impact on vulnerable groups	Cost efficiency	Reduction in fossil energy use /emissions	GVA per year (EUR million)[3]	Employment (jobs)[4]
		(time or frequency) connections to the economic centre, hospital, school or other essential services.					
Investments in railway infrastructure	Selected, Ministerial Priority	The objective is to improve the quality of five railway tracks in transport poor regions by rebuilding the dispatching system and by the electrification of one of the tracks.	High	Low	Medium	0.763	19.427
Scheme for building bicycle infrastructure	Selected	The investment is focused on the building and construction of new bicycle paths and related infrastructure in Slovakia. Part of the investment is the	High	Low	High	0.586	18.823

M&Is	Selected	Justification (if selected for further analysis)	Mitigating ETS2 impact on vulnerable groups	Cost efficiency	Reduction in fossil energy use /emissions	GVA per year (EUR million)[3]	Employment (jobs)[4]
		technical support for preparation of technical documentation for eligible institutions.					
National Transport Authority's continuation of the public transport reform	Non-selected	The Ministry of Transport and Ministry of Finance started a reform of the public transport in recent years. As a result, a new plan for public transport availability was prepared by NADA (with the perspective of gradual change to the future). All parts of the reform are aimed at the simplification of traveling by public transport, making it more comfortable, user friendly, and modern. The long-term aim is to have affordable and effective public transport with optimised costs and zero or low emissions travel performance. It can be achieved by reforming timetable planning across different transport modes and cooperation on the different levels of government. The reform also includes the definition of standards for the transport service of municipalities (and stops)					
Data collection on the public transport and data collection on the household's transport behaviour and costs	Non-selected	The M&Is is aimed at obtaining more detailed data beyond the scope of the reform of public transport and budgetary possibilities. The aim is to reduce emissions, increase the quality of public transport, and optimise public transport connections and frequency					
Support scheme for e-bikes and cargo bikes	Non-selected	The aim is to promote an active travelling and using non-motorised mode of transport. Support for cargo bikes should lead to replacement of cargo services by vans or light duty vehicles to zero emission mode in urban and semi-urban areas					
The promotion of a second-hand market with EV/BEV	Non-selected	The scheme's goal is the increase of availability of the second-hand market electric vehicles for the citizens that are considered in situation of the necessity of having a car for commuting. The target group are low income households with transport needs that are					

M&Is	Selected	Justification (if selected for further analysis)	Mitigating ETS2 impact on vulnerable groups	Cost efficiency	Reduction in fossil energy use /emissions	GVA per year (EUR million)[3]	Employment (jobs)[4]
		not filled with public transport. Alternatively, the scheme may be designed as a promotion of electric vehicles through the social leasing for new cars.					
Multimodal mobility points	Non-selected	Aimed at the development of integrated terminals mainly in the city areas, especially for commuting purposes. Scheme will provide grants for development and preparation of project documentation (feasibility study, zoning and building permits).					
Campaigns promoting the use of transport modes other than individual car mobility	Non-selected	The M&Is should include various campaigns, information days, different ways of marketing and promoting different modes of zero-emissions transport or public transport					

4.1.2. Selection process

Following an iterative process that involved the EC, national authorities and stakeholders, and considering the results of the MCA, stakeholder feedback, and other elements, the following M&Is were selected (full descriptions in chapter 4.2):

Buildings

- **Family houses renovation.** This investment targets vulnerable households and vulnerable micro-enterprises who fulfil the national definition of threshold for income and other conditions. It is an extension of the ongoing support scheme for the renovation of family houses '*Obnov dom mini*' after its expiry. It provides grants for deep renovation as a step-by-step deep renovation. Two main renovation M&Is per vulnerable household are expected to be additional thermal insulation and window replacement as the first renovation measure. Energy system change will be supported if the existing system is at the end of it economic life. RES integration and control systems will also be supported if relevant. The focus should be on the worst-performing buildings and the principle of "energy efficiency first". The goal is to reach deep renovation, but the step-by-step approach is not excluded, if the steps are justified by the building renovation passport (BRP).
- **Support for apartment buildings renovation.** The investment provides a subsidy to vulnerable households (flat owners) for the renovation of their apartment building. Apartment buildings are mostly privately owned and renovations in Slovakia are typically managed by owners' associations or facility management companies and funded via a low interest loan. The main beneficiary of this measure will therefore be vulnerable household owners. Repayment of the loan is channelled via the obligatory Operation, Maintenance and Repair Fund (based on the Act No. 182/1993 Coll.) The monthly payment for households living in the building will subsequently increase due to the repayment of the loan related to the apartment building renovation. To renovate an apartment building, 2/3 majority of flat owners need to agree to take the loan related to the renovation. As a result of higher monthly payments due to renovation costs, flat owners with lower incomes often do not agree to the renovation process. This M&Is targets vulnerable households by reducing their costs related to renovation of their multi-apartment buildings. By decreasing the direct costs for vulnerable flat owners, the M&Is may incentivise them to sign off on apartment building renovations. The decision to reconstruct will benefit apartment owners.

  The investment is proposed to be implemented in the form of a repayment exemption from the ŠFRB. The ŠFRB currently does not have a support instrument targeted at vulnerable households. Complementarity to the existing ŠFRB instrument consists in the specific support for apartment buildings with progressive support for the repayment exemption for an

apartment building **depending on the share of vulnerable households** in it.

- **Renovation of social housing in apartment buildings and renovation of social services facilities managed by local governments and non-public providers.** This investment aims to support vulnerable households via deep renovation of social housing (apartment buildings) and social services facilities managed by local governments and non-public providers. The focus is given to the worst performing buildings. For projects where heating system renovations are required, establishment of small scale energy communities can be financed as well within this investment. In practice this would mean replacement of heating systems for group of social buildings with community RES or district heating solutions, This would include the support for the connection to smart grids and district heating networks. The M&Is also finances partial renovation, when this is part of a deep renovation based on a Building Renovation Passport.
- **Advice, professional assistance, capacity building and education.** This measure aims to provide advice and professional assistance within the framework of one-stop-shops (OSS) created under EPBD and EED. The goals are to complement OSS services for vulnerable groups (households and micro-enterprises) via tailored advice, the provision of energy certificates and building renovation passports free of charge. The expected activities are: the first-contact advice by existing field social workers (to provide advice on basic energy conservation measures and direct them to technical advice in OSS if relevant); detailed technical advice focused on vulnerable groups in OSS (EED, EPBD); densification of OSSs closer to vulnerable groups; and if needed, training, education and capacity-building for stakeholders involved in the implementation of SCF.

Transport

- **Support scheme for buying new zero emission vehicles for public transport and charging points**. The investment's objective is to improve the quality of the fleet of vehicles in public transport as well as provide zero emission transport options combined with first- and last-mile cycling travel. It is targeting vulnerable transport users and low-income households mainly in transport-poor regions where there is a lack of accessible public transport to incentivise the use of public transport over private car usage. To ensure efficiency of the investment from the point of the impact of target group, the index prepared by the Institute of Environmental Policy[5] will be used to prioritise regions and support for the purchase of the vehicle. The investment is new, except for zero-emission railroad vehicles that may be funded from the EU funds (Programme Slovakia, Recovery and Resilience

[5] Ministry of Environment of the Slovak Republic. (n.d.). I don't have a car, I don't have a bus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html. (available in Slovak).

Plan) – in that case, it is an extension of the current schemes. Under the Programme Slovakia, measure 2.8.1 Support for the development of sustainable mobility outside Bratislava self-governing region, it is possible to obtain funding for the renewal of vehicles for public transport (alternatively powered buses including the related charging and recharging infrastructure). The investment under the Programme Slovakia is focused on a much broader scope of mobility than the existing M&Is and will end in 2027. Funding from SCF may be continuously linked to this Programme.

- **On-demand transport**. The M+I[6] is targeted at transport-poor areas and regions, and at households or individuals in rural and semi-urban areas with bad or insufficient (time or frequency) connections to the economic centre, hospital, or other essential services. Consequently, people with existing health problems and disabled persons whose mobility is limited are also a targeted group. This is a complementary action to the existing public transport system, should not be considered a replacement of regular transport, and should be based on the ad-hoc needs of vulnerable groups.
- **Provision of discounts on public transport fare for citizens in material deprivation**. The aim of the measure is to provide affordable public transport services for the lowest income group of citizens in Slovakia, those experiencing material deprivation. The measure targets mainly citizens in rural and sparsely populated regions with the need of commuting and traveling to economic centres. In Slovakia, the reimbursement of travel expenses for transport is based on the Act 597/2003 Coll. on the financing of primary schools, secondary schools and school facilities. Compared to the existing system of discounts, this measure is additional for students at high schools and for adults in the situation of material deprivation, thereby providing additional dimensions to the current measures.
- **Investments in railway infrastructure**. The objective is to improve the quality of five railway tracks in transport poor regions by rebuilding the dispatching system and by the electrification of one of the tracks. The projects for which funding is intended are located in two self-governing regions with prevalent transport poverty according to the IEP analysis[7] - the Prešov self-governing region (which has the worst levels of transport poverty) and the Košice self-governing region (which is characterised as third most vulnerable). The subsequent higher quality of railway infrastructure will address the accessibility issue and facilitate the modal switch.
- **Building bicycle infrastructure**. The investment's objective is the extension of the existing bicycle paths infrastructure in the Slovakia and the provision

[6] We refer to this as measure + investment as it includes costs that would generate benefits beyond 2032 (investments to purchase the vehicles), but it also include the provision of free transport, classified as a measure
[7] Institute of Environmental Policy. (2025). " don't have a car, I don't have a bus – Analysis of transport poverty in Slovakia to support measures of the Social Climate Plan, page 17. https://www.minzp.sk/files/iep/analyzy/2025_2_mobilita_dopravna_chudoba.pdf.

of active transport mode for citizens as an alternative mode to using private cars, specifically in transport poor regions and we expect that low-and middle-income citizens will benefit from this investment. The goal is the construction of new bicycle paths for daily travel purposes with related infrastructure and technical support for beneficiaries with project technical documentation preparation. The investment is additional to the existing schemes and programmes by the EU funds and government budget.

Direct Income support

Direct income support measures will not be considered as part of this analysis.

4.2. Description and main elements of the selected M&Is

This chapter provides a summary description of the M&Is that were selected under this project for further analysis and consideration, as well as some of the results of that analysis. This summary is provided separately for M&Is in the buildings component and M&Is in the transport component.

It is important to note that the selection of M&Is is still subject to stakeholder consultation and a final decision by the relevant authorities in Slovakia, as is also the budget allocation and to each of the M&Is (and related to it, their level of ambition). If there is a need to divert from the budget allocation that is presented in this report for a given measure or investment in the SCP submitted to the Commission, the level of ambition of the measure or investment will need to also be modified accordingly, as is potentially also the case with the targets and expected impacts. Namely, increases or reductions in the budget of a measure or investment can translate into a higher or lower benefit per recipient, a higher or lower number of recipients, and/or a longer or shorter duration in time. These changes will need to be accounted for in the targets set for the measure or investment, and its expected impacts.

For instance, increasing the budget for M&Is for building renovation (family houses, apartment buildings, social housing) could translate into increasing the number of households reached. Similarly, increasing the budget for Investment '*Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points'* could translate into increasing the number of zero emission vehicles (busses, battery rail vehicles) and charging points that can be procured and delivered.

In a case such as the ones described above, the analysis in this report can still be used with modifications. To some extent scaling is possible. This is particularly the case for investment support M&Is. The methodology we apply uses unit costs for the majority of the cost components of the M&Is, where the units are related to the targets. This means that the targets can be scaled in line with the available budget and changes to it. Similarly, impacts have been estimated based on these units as well, so they can also be scaled following changes to the budget.

Scaling is more challenging for M&Is that are not immediately linked to investment, such as advisory/information M&Is or M&Is using intermediaries, e.g. One-Stop-Shops. In this case, a change in allocated budget might results in more than proportional reduction of targets or delay of milestones which would need to be accounted for in the impact assessment. Please refer to the chapter on methodology of the characterisation and the measuring of impacts of the M&Is for more information (Chapters 3.2 and 3.3).

This chapter contains a description of the M&Is selected for further analysis, for the full justification and compliance of the M&Is, see Annex B.

4.2.1. Buildings

Investment 1: Family houses renovation

Description

This investment aims to support the improvement of energy performance of buildings occupied by vulnerable households or by vulnerable micro-enterprises. This investment would be an extension of the ongoing support for partial renovation of family houses provided by the current *'Obnov dom mini'* scheme after its expiry, and provide grants for deep renovation as a staged deep renovation, typically for two renovation interventions per vulnerable household (additional thermal insulation and window replacement as the first two steps and the systems change only if necessary, RES integration, control systems if relevant).

While the existing scheme Green Solidarity (implemented by SIEA) can support technical systems changes based on renewable energy sources installation, if it is in line with the steps in the Renovation passport, the focus of this investment is on deep renovation of worst-performing buildings in order to achieve significant energy cost savings, which are likely occupied by vulnerable and/or energy poor households. It is necessary to follow the principle of "energy efficiency first" and a holistic approach to buildings renovation. The goal of renovation itself is the deep renovation, but also a step-by-step approach, if steps are proofed by the building renovation passport (BRP).

Currently, the existing scheme *'Obnov dom mini'* (a component of the overall *'Obnov dom'* scheme) is planned to support the partial renovation of 4 500 family houses from the funds of the Recovery and Resilience Plan (RRP, chapter REPoweEU) by the end of 2025. An additional 5 164 family houses will be renovated by June 2026 (estimate, SAŽP). Eligible applicants are households whose net income per member for 2023 did not exceed a specified level. The aim of the *'Obnov dom mini'* and *'Obnov dom mini 2'* programmes is to partially renovate at least 4 080 houses by the end of 2025. The amount of the financial contribution per renovation is a maximum of EUR 10 000, with part of the funds being paid in advance. The total amount allocated from REPowerEU, the green chapter of the Recovery and Resilience Plan of the Slovak Republic for the renovation of houses within the call, is EUR 40 million. Applicants are assisted by professional employees

of regional administration offices and field workers of the Slovak Environmental Agency, who help them throughout the process.

After the end of the RRP scheme, financing will continue from the Modernisation Fund up to the amount of EUR 186.34 million, with at least 16 940 applications being supported. The full conditions to access the funding have not yet been definitively determined, but will likely be similar to the RRP scheme.

The current *'Obnov dom mini'* scheme financed from the RRP will be concluded in 2026. The time frame for utilising the financing from the Modernisation Fund is planned from 2026 (or after the allocation from the RRP is exhausted). An allocation from the Modernisation Fund will be available until it is exhausted. By mid-2026 (end of the Renovation plan) at least 25 164 houses will be renovated (binding target) via the overall *'Obnov dom'* scheme.

This investment will be an extension of the existing *'Obnov dom'* (Renovate your house) scheme currently financed by the REPowerEU RRP. Additionality is ensured by the extension in time of the existing successful scheme, in the ambition level from partial renovation to deep renovation (EPBD definition), and in its step-by-step approach (defined as a staged deep renovation in EPBD) if steps are proofed by the Building Renovation Passport (BRP).

Financing for this investment would extend the target group to vulnerable households and vulnerable micro-enterprises and the worst-performing residential buildings (defined under EPBD Art.3 and 9), a definition for eligible applicants which differs from the one currently used in the Obnov dom scheme. This will restrict the scope of recipients to target vulnerable households and vulnerable micro-enterprises. These recipients are often unable to finance renovation under current conditions, as funding is not sufficient and required co-payments are too large for measures such as envelope improvement,.

After the renovation of approximately 20 000 single-family homes from the RRP (4 080 homes until end of 2025) and Modernisation Fund (16 940 homes) will be completed, the potential reach of the scheme extension under the SCF investment could be at the level of another 20 000 homes. Currently, the amount of support per household is EUR 10 000, however, if the SCF is focused on deep renovation or staged deep renovation, this limit should be increased to EUR 30 000 per household.

This investment is in line with the updated NECP (final March 2025).

Analysis of Challenges & Solutions

Foreseeable implementation challenges are listed below.

- **Differing income threshold proof for households**; Based on the draft definition by Ministry of Economy, the administrative identification of vulnerable households differs from the one currently used in the "Obnov

dom" scheme. It will be necessary to agree on one definition to ensure no potential recipients of the investment are left out. The definition proposed by the Ministry of Economy is based on a combination of income threshold, share of energy expenses in disposable income and energy performance of the building. These data sources are available via the national statistical office.

- **Missing national definition of vulnerable micro-enterprises**.
- **Missing definition of worst performing buildings according to EPBD Art. 3 and 9**. By 29 May 2026, each MS shall establish a national trajectory for the progressive renovation of the residential building stock in line with the national roadmap and the 2030, 2040 and 2050 targets contained in the MS's national building renovation plan. The national trajectory for the progressive renovation of the residential building stock is expected to identify 43% of Slovak buildings stock as the worst-performing residential buildings. As a fallback approach, family houses constructed before 1983 without any renovation could be considered as the worst performing buildings. The year 1983 is a well-known milestone for the change in requirements for thermal protection of buildings and the improvement of energy efficiency of new buildings constructed after this year.

As a result, the identification of eligible family houses may be a challenge for those households who may not be able to prove the current energy performance of their occupied building, or the possibility of a family house belonging to the worst performing buildings stock even if it has been built after the above-suggested year 1983. A thorough process to develop a comprehensive and contextualised definition of a worst performing building will be necessary and will need to be reached by the time the investment is implemented. Similarly, the income threshold proof will need to be set within the scope of this investment to account for the proposed increase of provided funding per family house from EUR 10 000 to EUR 30 000. Lessons learnt from the existing measure *'Obnov dom'* should be adapted to the scope of this investment and methodological guidance to applicants will need to be revised and provided. Support provided via a separate investment on subsidies to energy renovation passports should also be highlighted to users.

Investment Details

This investment targets the improvement of energy performance of family houses occupied by vulnerable households and micro-enterprises via building renovation. The goal is to conduct deep renovations to significantly enhance the energy performance of buildings, specifically, the improvement of the envelope as the first step (thermal insulation of walls, roof, floor and change of windows) and the replacement of heating systems and RES and control systems implementation if relevant. The focus is on the worst-performing buildings (defined under EPBD Art. 3, and 9, however, not yet defined in national legislation). The goal of the

renovation itself should be deep renovation, but if reasonable also in step-by-step, but the steps must be proofed by mandatory building renovation passport (BRP).

This investment is an extension of an existing support scheme for partial renovation of family houses '*Obnov dom mini*' as explained above. The extension includes the following.

- An extension in time of the current scheme with SCF funding being utilised from 2027 after the current funding sources have been allocated, with the funds from the SCF in 2026 to be used for call preparation and administrative set up.
- An extension in scope, as it targets deep renovation.
- A targeted extension, as it is limited to vulnerable and energy poor households by targeting worst performing buildings and extends the share of costs supported from the current EUR 10 000 to EUR 30 000 per household. Based on calculations conducted by SAŽP, deep renovations for an average-sized family house amount to an average of EUR 30 000 as it can be also staged deep renovation (as defined in EPBD) based on renovation passport.

Objectives & Targets

The objective of the investment is the renovation of the worst performing buildings, with highest expected energy savings. The target group are vulnerable households who own their family houses and have their primary (permanent) residence in that dwelling. This criterion has been used in the current scheme, so maintaining this criterion will facilitate administrative identification. Under the current scheme only about 50% of the cost has been covered. It is expected that households who did not renovate their houses might have lacked the means to do so and complete a renovation. The current scheme will provide a higher allocation per household, enabling costs to be covered via the subsidy. Additional identification will be carried out by social workers (as part of Measure 4 of this report proposing advisory support). Vulnerable households will be targeted as defined in Article 2(10) of Regulation (EC) No 2023/955 and in more detail at the national level (see below). The worst performing buildings could be determined based on the definition in National Building Renovation Plan (EPBD Art. 3, 9). Vulnerable micro-enterprises operating in family houses could also be an eligible target group.

Complementary advisory support via Measure 4 will offer the possibility to obtain a renovation passport for houses owned by vulnerable households. This will enable the targeting of investments to optimise both energy savings and energy cost reduction. For a long-lasting impact of the decrease in energy consumption and CO_2 emissions, it is necessary to follow the principle of "energy efficiency first" in logically consecutive steps of the renovation interventions listed in the building renovation passport. Individual renovation interventions (e.g. only windows) or only

technical systems changes without thermal insulation of the envelope are not suitable for the worst performing buildings. The worst performing buildings renovation will contribute to the objectives established in the EPBD (Art. 3 and Art.9).

Households must perform an EPC assessment before the intervention starts and after the works are concluded to ensure that the renovation has reached significant energy savings. In case of staged intervention, homeowners will have to obtain a renovation passport for the buildings. The funding could be attached to a step towards deep renovation as indicated in renovation passport.

Implementation & Administration

The investment will be implemented by the Slovak Environment Agency (SAŽP), the authority that manages the existing scheme *'Obnov dom'*. The calls will be launched for the worst performing family houses, for vulnerable or low or lower-middle income households, and vulnerable micro-enterprises that operate from their homes. Family houses will be identified via the national definition of the energy performance of buildings occupied by vulnerable households. The definition of vulnerable micro-enterprises may be more difficult to apply administratively. Targeting will be based on a combination of revenues threshold and the share of energy expenses as a share of turnover and/or profits. This investment should be implemented together with Measure 4 to ensure applicants will be equipped and supported in applying for the funding (Advice, professional assistance combining one-stop-shops according to the EPBD and EED and community/field social work).

The administrative implementation would build on the existing administrative system in place for the subsidies scheme *'Obnov dom'*. Administrative identification of households in energy poverty and vulnerable households will be a necessary first step based on the national definition of energy poverty (people at risk of energy poverty according to the definition of the Ministry of Economy of the Slovak Republic). Secondly, the identification of worst-performing building according to the definition in the National building renovation plan (EPBD Art. 3 and 9) will help identify and target the highest potential for energy cost savings. Potential energy cost savings should be confirmed before the investment is provided via an energy performance certificate or a building renovation passport. Consequently, energy performance certificates should be issued before and after renovation. Both certificates along with the renovation passport should be an eligible cost.

Estimated costs

The quantified value of the targets is the renovation of additional approximately 20 000 the worst performing family houses from the SCF. SAŽP data from the already funded and completed renovations using the *'Obnov dom'* scheme are used for estimated costs. The conversion to an average-sized family house of

189 m^2 of gross floor area (recalculated from Statistical Office of the Slovak Republic) led to the following estimated full investment costs:

- only wall insulation, window replacement – EUR 27 005;
- deep renovation (min. wall insulation, window replacement, and heating or PV system) – EUR 32 079.

The average of these two levels of renovation is EUR 29 542. The assumed costs for the renovation of one family house is therefore EUR 30 000. The renovation costs also include design documentation and its obligatory aspect – "Design energy assessment". The estimated cost of the accompanying campaign to the investment is approximately EUR 5 million and the costs for the call preparation in the first year is EUR 0.06 million.

The total costs of this investment is estimated at EUR 605.1 million, of which EUR 453.8 million are requested under the Fund, and EUR 151.3 million are covered by the national contribution.

The targets are based on the experience of the SAŽP. The breakdown of performance of "Obnov dom" scheme by year is included in Table 4-3 below.

Table 4-3 Performance of "Obnov dom" scheme by year

Targeted timeline	Number of payment applications received	Number of completed checks and funds paid on by SAŽP
12/2022	0	0
12/2023	683	106
12/2024	1 0804	5 539
12/2025	20 000 (estimate)	19 000 (estimate)
6/2026	25 164 (estimate)	25 164 (estimate)

Gender Considerations

In Slovakia, the share of single males and females being identified as energy poor according to the EU-SILC indicators are very similar, which may point to the fact that there is not a significant gender aspect to this investment. There is therefore higher incidence of energy poverty within single person & single parent households. Among households without children, single-person households of women aged 65 and over are most at risk of poverty and social exclusion. When designing advice on this investment, it is necessary to consider a gender perspective in targeting and adapting advice.

The full characterisation is presented in Annex B.

Investment 2: Support for apartment buildings renovation

Description

The investment provides a subsidy to vulnerable households (flat owners) for the renovation of their apartment building. Apartment building renovations in

Slovakia are (i) organised by the owners' association or a facility management company and (ii) funded via a low interest loans from ŠFRB (with the possibility of a loan remission) or loans provided by private banks or building savings companies.

Repayment of the loan is organised via the obligatory Operation, Maintenance and Repair Fund (based on the Act No. 182/1993 Coll.) The monthly payment for households living in the building are subsequently increased due to the repayment of the loan related to the apartment building renovation. To renovate an apartment building, 2/3 majority of flat owners need to agree to take the loan related to the renovation. As a result of higher monthly payments to the mandatory *Operation, maintenance and repair fund* due to renovation costs, flat owners with lower incomes often do not agree to the renovation process. This is a common reason why some multi-apartment buildings are not renovated or partially renovated (e.g., insulation of only the side facades). This investment targets vulnerable households by reducing their costs related to renovation of their multi-apartment buildings. By decreasing the direct costs for vulnerable flat owners, the investment may incentivise them to sign off on apartment building renovations.

The ŠFRB scheme provides long-term (25 years) low-interest loans for the renovation of apartment buildings to the owners' association or the facility management company with a potential partial remission of the principal of the loan after meeting the requirements for higher energy savings and the application of RES[8]. The ŠFRB scheme is currently operating well, with only a small part of apartment buildings currently not renovated in contrast to the slow progress in the renovation of individual houses. The scheme under the SCP would target the approximately 25% of the apartment building stock that is currently not renovated.

Renovation actions financed by the ŠFRB mostly target insulation and window replacement, and less often system renovation, since most apartment buildings are connected to district heating. The *Operation, maintenance and repair fund* is a mandatory fund for all apartment buildings (created based on the corresponding Act No. 182/1993 Coll). This fund is used for both renovation payments as well as operation costs for building heating costs. Most of the buildings are either connected to the district heating grid or operate their own central heating system. The mandatory monthly contribution of flat owners to this fund must be increased in order to repay the loan related to the renovation. The increase is usually by 0.5–0.8 EUR/m^2 of the net floor area of a flat per month, based on agreement between flat owners. It is thus an increase of EUR 30–48 per month for an average-sized flat of 60m^2 (net floor area). Even with this increased contribution intended for the loan repayment, the *total* monthly payment of the flat owner is usually

[8] The low-interest loans are provided by ŠFRB according to the Act No. 150/2013 Coll. on the State Housing Development Fund as amended.

reduced and brings cost savings. This is due to reduced energy consumption following the envelope improvement (insulation, window replacement) compared to the unrenovated state.

The investment proposed under the SCP would provide a subsidy for the repayment of the portion of the loan attributable to vulnerable households' share of apartment building renovation costs paid to the *Operation, Maintenance and Repair Fund*. The grant for the repayment of the portion of a vulnerable household loan to the *Operation, Maintenance and Repair Fund* related to an apartment building renovation is an extension to the existing ŠFRB scheme with a new grant component for the vulnerable households.

Analysis of Challenges & Solutions

Smaller apartment buildings comprise the main part of the unrenovated apartment building stock. Smaller buildings have a less favourable form (higher envelope area to volume ratio) and their energy consumption in kWh/m^2 is much higher. The investment costs for additional insulation (walls, roof, floor above basement) are therefore higher per m^2 of flat in a smaller building than in a larger building (see Annex B). Additional thermal insulation and windows replacement have a significant impact in terms of energy savings and decrease of energy costs for flats owners in multi apartment buildings.

At the same time, the majority of unrenovated apartment buildings are older brick low-rise buildings, mostly in their original condition. Renovation costs of these buildings are significantly higher than for standard 7-storey or large panel apartment buildings, which have already been largely renovated.

By offering the subsidy for the repayment of the portion of a vulnerable household loan to the *Operation, Maintenance and Repair Fund* related to an apartment building renovation, the higher costs of renovation should be mitigated to motivate renovations.

To facilitate this investment, an adaptation of existing legislation or loan contracts will be needed as the *Operation, Maintenance and Repair Fund* does not normally contain individual sub-accounts of individual owners. Instead, payments from owners are collected in one account. The administrator or community does not earmark funds or allocate portions of owners' payments specifically for loan repayment. In practice, it is unnecessary to attribute loan repayment amounts to vulnerable households within the apartment building. These households should not incur higher contributions to the *Operation, Maintenance, and Repair Fund* as a result of the renovation loan. The additional cost will be offset for the owners' association by a portion of the loan that is provided in the form of a grant.

An additional challenge lies in the fact that building managers should be the initiators of call applications and should assist vulnerable households in the apartment buildings. One-stop-shops (OSS) and ŠFRB (Measure 4) could support

building managers and inform them about the application process for here-described apartment building renovation investment.

The general challenge for the SCF implementation is the application of the definition of vulnerable households based on the income threshold. The Ministry of Economy plans to automise the identification of vulnerable households by linking databases on income and energy expenditures. This can improve the implementation processes and address help to the most vulnerable. An operational definition of energy poverty and vulnerable households is under preparation by the Ministry of Economy.

Investment Details

One of the priorities outlined in the updated NECP (March 2025) for the period up to 2030 is to stabilise the decline of apartment building renovations in recent years. The NECP estimates that offering a grant component to the existing ŠFRB scheme would be sufficient motivation for vulnerable households in uninsulated or only partly insulated apartment buildings to sign off on a building-wide renovation.

Objectives & Targets

The objective of the investment is to increase the energy efficiency and decrease the energy costs of apartments by supporting the installation of thermal insulation, change of windows, change of heating system (if relevant), installation of RES (if relevant) of the remaining 25% of the total number of not insulated apartment buildings. Specifically, the investment aims to enable multi-apartment buildings owners to take the decision to access the ŠFRB scheme or other repayable funds (e.g. EU structural funds from the Slovakia Programme). This investment targets the improvement of energy performance of apartment buildings by providing grants to apartment owners classified as vulnerable households; the grant covers the loan repayment to the *Operation, Maintenance and Repair Fund* of the building (created based on Act No. 182/1993 Coll.) related to multi-apartment building renovation.

The target groups are flat owners, identified as vulnerable households based on national definition, preferably living in the worst performing buildings where the cost reduction potential is the highest. The worst performing buildings could be determined based on the definition in the National Building Renovation Plan (EPBD Art. 3, 9). The renovation of other buildings can be supported as well under the scheme, in case it helps vulnerable households. Depending on the age of building, the energy savings can be 30-70% and in this way this M&Is supports the Fund's goals, including reducing fossil fuel dependency. Complementary implementation of Measure 4 through which advice and professional assistance will be provided, combining one-stop-shops established based on the implementation of the EPBD and EED and community/field social work can help with the administrative targeting of this investment.

Apartment buildings connected to district heating systems that are already included under the ETS system should not be a priority, but should not be excluded either. The focus should be placed on the remaining share of unrenovated or partly renovated apartment buildings (approx. 25%) where the obstacle for renovation is a loan approval by the required two-third majority of flat owners in an apartment building.

Implementation & Administration

The scheme will be administered and implemented via the existing structure of the ŠFRB scheme based on launched calls for vulnerable households that are identified based on the national definition of vulnerable households including an income threshold. Building managers would be the initiators of the application in the name of the whole apartment building.

These conditions have to be fulfilled for households to be eligible.

- Energy poverty and low or lower-middle income has to be met on the basis of an income threshold and other conditions based on the definition of vulnerable households according to the Ministry of Economy. This will enable building managers and owner communities identify vulnerable households from non-vulnerable and apply for additional funding from the SCP. There is currently other support available from the Cohesion Policy Funds and also administered via ŠFRB for non-vulnerable households.
- Households classified as being in "material deprivation" and receiving a "housing allowance" are automatically considered eligible vulnerable households for this investment. A total of 59 502 households have received the "material deprivation" benefit, covering 125 632 jointly assessed household members. As of 31 December 2024, 24 663 households were granted entitlement to the "housing allowance." Among these, 14 793 households owned an apartment or family home. The housing allowance is currently linked to the material deprivation benefit, meaning it is exclusively provided to the most vulnerable households.
- The contribution, intended solely for expense coverage (such as loan repayment), will be provided specifically for the eligible household that owns the flat. The amount is predetermined and typically calculated based on the flat's net floor area in m^2.

Once the building has been renovated or the loan approved, a contract may be concluded between the SCF implementing organisation and the owners' association or facility management company or standard loan contract can be updated. This contract pertains to the grant for repaying the loan contribution share corresponding to eligible vulnerable households. The payment may be directed either to the *Operation, Maintenance and Repair Fund* or to ŠFRB. The mandatory monthly contribution to the *Operation, Maintenance and Repair Fund* for eligible vulnerable households will not be increased due to the loan.

Estimated costs

There are 77 113 apartment buildings (address points) in Slovakia, which are comprised of 1 025 735 apartments based on data collected by the Statistical Office of the Slovak Republic in the 2021 Census, amounting to an average of 13.3 flats per building (address point). 15 608 buildings are not renovated equalling to 207 600 flats. Assuming there are 5.6% of the most vulnerable households to the introduction of ETS 2 (DLV 2, 60 EUR/tCO_2 scenario) living in apartment buildings, the number of flats in non-renovated apartment buildings occupied by the most vulnerable households is approximately 11 626 flats. We assume that the investment will support approximately 11 600 flat owners in apartment buildings, with investment costs of about EUR 12 000 per flat on average (for smaller buildings). This estimate is based on the lower end of the EUR 30–48 per month range of costs for an average-sized flat of 60 m^2 net floor area. The assumption is that the flat owner will have to repay a low interest loan for 25 years. The total cost of repayment of 300 monthly installations for smaller houses is about EUR 12 000 (max. EUR 14 400)[9].

Based on these assumptions, the total costs of the investment is EUR 139.3 million of which EUR 104.5 million are requested from the Fund, and EUR 34.8 million are covered by the national contribution.

Gender Considerations

In Slovakia, the share of single males and females being identified as energy poor according to the EU-SILC indicators is very similar, which may point to the fact that there is no significant gender aspect to this investment. At the same time, national data shows that single-parents (mostly women) are more likely to be at risk of poverty. Among households without children, single-person households of women aged 65 and over are most at risk of poverty and social exclusion.

The full characterisation is presented in Annex B.

Investment 3: Renovation of social housing in apartment buildings and renovation of social services facilities managed by local governments and non-public providers

Description

The aim of this investment is to support deep renovation of social housing in apartment buildings and social services facilities managed by local governments (municipalities and higher territorial administrative units) and non-public providers. Deep renovation includes envelope improvements as the first steps, replacement of technical systems and RES integration if relevant, Building Automation and Control Systems, and smart metering for small energy users that are not provided by smart meter given the rather low smart meter roll out in Slovakia to enable link to electricity prepayment. The focus is on the worst

[9] ŠFRB. (n.d.). Obnovujte s nami. https://www.sfrb.sk/ziadatel/obnovujte-s-nami/.

performing buildings (EPBD Art. 3 and 9) requiring a holistic approach to the renovation to ensure that energy costs decrease significantly after renovation.

This investment makes it possible to carry out structural modifications to existing apartments, if they are, for example, "vacated", thus enabling their reuse.

The installation of small community heating systems powered by RES for clusters of social housing or social service buildings managed by local or regional authorities may be included. This can also involve support for connecting to smart grids and district heating networks as part of a deep renovation, specifically when replacing the existing heating system, where applicable. The renovation can also be a staged deep renovation, but a BRP is obligatory in such cases. An EPC should be issued before and after the renovation to confirm energy savings are achieved.

Costs for basic infrastructure – while allowing some flexibility for unforeseen investments – are expected to be associated with apartment buildings used for social housing. Synergies with transport poverty considerations and the need for barrier-free access should be accounted for when conducting renovations.

The investment is an extension of existing schemes under the ŠFRB. The extension is achieved by deep renovation via a combination of grants and loans, with the focus on the worst-performing buildings. The investment will also enable the participation of actors to whom the existing grant programs are usually not open (non-profit organisations/social enterprises, charities), emergency housing facilities, temporary accommodation, and lower standard apartments.

Though there are gaps in data regarding social services facilities, the following statistics and data could be used to guide the identification of the targeted groups. In 2024, 18.3% of the population in Slovakia, which represents more than 980 000 people, were at risk of poverty or social exclusion. The number and share of people at risk of poverty or social exclusion increased by 37 000 people year-on-year, with a visible increase for the fourth year in a row. For comparison, in 2023, 17.6% of the population (943 000 people) were at risk of poverty or social exclusion, which means that their share increased by 0.7 percentage points year-on-year.

Analysis of Challenges & Solutions

Standard social housing apartment buildings are intended for low-income households while crisis intervention services are intended to support the most vulnerable. However, all types of social housing and social service facilities can be included in the renovation efforts, though local governments will need financial support for project preparation for eligible buildings. A challenge is the absence of a clear definition of "worst performing buildings" under EPBD Articles 3 and 9, though buildings constructed before 1983 without any renovation could be considered as such.

For social housing providers, it is critical to account for ownership structures and ensure that investments in renovation do not result in rent increases or alter the

building's intended social function. Until now, local governments have been restricted from incorporating renovation costs into rent. However, a legal amendment set to take effect on 1 January 2025 will allow this.

It will also be crucial to update data about social housing facilities as it is currently lacking. While a rough estimation is mentioned in the Long-Term Renovation Strategy (LTRS 2020) and the 2011 Census (SODB 2011), in order to efficiently implement this investment, a thorough analysis of social housing in the total building stock will need to be conducted.

Investment Details

This investment supports the deep renovation of social housing in apartment buildings and social service facilities managed by local governments and non-public providers. This could also be achieved by partial staged deep renovation in logically consecutive steps of the renovation interventions listed in the building renovation passport or proposed by renovation design in case of one step deep renovation with the aim of energy costs savings. It may include thermal insulation (walls, roof, floors), windows replacement as the first two steps, replacement of outdated heating systems, integration of renewable energy sources (RES), and building control systems as the next steps where relevant. A functioning heating system should not be replaced unless significant CO_2 and cost savings are achieved.

Social housing is entirely within the competence of the Ministry of Transport of the Slovak Republic and consists of the public rental sector, i.e. approximately 55 000 apartments mostly in big apartment buildings according to the 2021 Population and Housing Census.

Non-public social service providers – who deliver around 45% of social services – are currently not benefiting from any of the major grant schemes (these include Recovery and Resilience Plan, Programme Slovakia, and the Environmental Fund) aimed at increasing the energy efficiency of buildings, despite often operating in poor-quality buildings.

In terms of types of **social service facilities**, the most suitable for SCF are social crisis intervention services (SSKI) providing housing in residential facilities (shelters, halfway houses, emergency housing facilities), providing shelter/overnight accommodation (dormitory) and social services provided in an outpatient or field form (field crisis intervention service, low-threshold day centre, integration centre, community centre and low-threshold social service for children and families).

This investment fills the financing gap by offering a tailored mix of grants and loans, especially for non-profit organisations, charities, and social enterprises focused on crisis services. Many clients in these facilities cannot afford to pay for services or energy separately, making energy cost reductions especially important.

By including these providers and enabling buildings reconstructions, the investment also expands the supply of social housing. Additionality is ensured by focusing on deep renovation of the worst-performing buildings owned by recipients in different categories than other existing measures. These involve mainly non-profit organisations, social enterprises and charities, focusing on crisis intervention services. The situation of non-public providers requires the introduction of suitable combination of grants and loans. Furthermore, non-public providers of social services are currently excluded from the existing grant schemes. This investment will broaden the scope of eligible recipients for grants and work towards reducing energy poverty of the most vulnerable in society.

Objectives & Targets

The objective of the investment is the renovation of the worst performing buildings with social apartments, reducing fossil fuel consumption and achieving energy cost savings for vulnerable households in some types of social housing. The target is to renovate 472 500 m^2 of gross floor area of buildings as reported in EPC per year between 2028 and 2032. The aim is to improve energy efficiency and reduce fossil-fuel use with a focus on worst performing buildings, with the highest potential for energy savings, either at the level of deep renovation (NZEB or Zero Emission Buildings) or based on the steps indicated in BRP.

The target groups of this investment are households living in social housing buildings, and households/individuals making use of social services facilities owned by municipalities or non-profit organisations/social enterprises and charities. Among social service facilities, we recommend focusing on social crisis intervention services (SSKI) and non-public providers.

Implementation & Administration

The implementation will be based on the existing long-term National Housing Policy program governed by the Ministry of Transport. For social housing and social service facilities, this investment would require the utilisation of the existing structure of ŠFRB. For more than 10 years, ŠFRB has been providing preferential loans for the renovation of social housing and social service facilities to all types of applicants, including non-public providers. Local and regional governments have made good use of the ŠFRB loans as they have the required stable financial revenue to then repay them. This is not the case for non-public providers of social services, who act as non-profit organisations and thus do not make profit for the ŠFRB loans repayment. This investment will therefore build on the existing implementation structure, but broaden the scope of eligible recipients.

Target groups can be identified by data on households receiving material deprivation benefits. In 2024, 59 502 households received a material deprivation benefit, while the total number of jointly assessed household members was 125 632 people. The entitlement to housing allowance was granted to 24 663 households as of 31 December 2024, of which there were:

- households that own an apartment or family house – 14 793;
- households that are tenants of an apartment, family house or living room – 7 115;
- households with lifetime right of use – 944; and
- households living in a social service facility – 1 811.

The housing allowance is currently tied to the material deprivation benefit, i.e. it only reaches the most vulnerable.

For SSKI, the types of social services eligible for SCF financing include those offered in residential facilities – such as shelters, halfway houses, and emergency housing – as well as services that provide temporary accommodation like dormitories. It also covers outpatient and field-based social services, including crisis intervention in the field, low-threshold day centres, integration centres, community centres, and low-threshold services for children and families. SSKI beneficiaries fall into the group of persons at risk of poverty and social exclusion and will also form a core group within the group of persons at risk of energy and transport poverty.

The distribution of the number of SSKI by provider as of December 31, 2023:

- total number of SSKI – 880, with a capacity of 15 242 places;
- number of SSKIs established or founded by the municipality – 491, with a capacity of 8 886 places;
- number of SSKIs operated by non-public service providers – 361, with a capacity of 5 929 places, which represents 41% of the total number of registered SSKIs (see Analysis of the provision of social services in the Slovak Republic, p. 112).

The total capacity in residential crisis intervention facilities as of 31st December 2023, according to data from the Information System SoS of the Ministry of Social Affairs and Health of the Slovak Republic, was 3 611 places, where social services were provided to up to 4 762 recipients, of which 3 414 recipients in shelters, 1 073 recipients in emergency housing facilities, and at least 276 recipients in halfway houses.

Estimated costs

Data on the size and total number of social housing buildings and social service facilities is not available. The size of buildings varies greatly, from big multi-apartment social housing buildings and social services facilities in the cities to small, family houses-like, facilities in small villages. The costs are estimated per m^2 of renovated buildings. The average costs for energy related renovation based on data from the *'Obnov dom'* scheme for family houses are assumed to be 160 EUR/m^2 of gross floor area reported in EPC. That is 211 EUR/m^2 of net floor area and this is a basic assumption for the costs below due to the robustness of the data of the scheme.

The weighted average family house dwelling floor area according to the 2021 Census, recalculated from a net floor area to a gross floor area reported in the

EPC, is 189 m^2. 2 500 buildings the size of one family house renovated per year amount to 472 500 m^2/year of gross floor area. The yearly renovated gross floor area of 472 500 m^2 corresponds to 2 500 average family houses (gross floor area of 189 m^2) or to 236 bigger buildings (gross floor area of 2 000 m^2). For apartment buildings, an average ratio of 1.32[10] between m^2 of gross floor area of the building and m^2 of the net useful floor area of one apartment is assumed. This range covers the types of social housing eligible for the investments. The number of applicants (entities) is assumed to be 1 500.

For the analysed investment "Renovation of social housing in apartment buildings and renovation of social services facilities managed by local governments and non-public providers" in the building's component, the total costs are EUR 378.1 million, of which EUR 283.5 million are requested under the Fund, and EUR 94.5 million are covered by the national contribution.

Gender Considerations

In the Slovak Republic, it has long been true that households with children are significantly more at risk of poverty than households without children. In 2024, one fifth of households with dependent children (20.4% of people) faced poverty, and slightly more than 15% of people living in households without children. Among households with children, single-parent families (1 parent/adult with 1 or more children) were most at risk, with almost 38% of people facing poverty. The single-parents are mostly women. Among households without children, single-person households of women aged 65 and over were most at risk (30.3%).

The full characterisation is presented in Annex B.

Measure 4: Advice, professional assistance, capacity building and education

Description

This measure will provide advice and professional assistance within the framework of one-stop-shops (OSS) created under EPBD and EED. The aim is to enhance OSS services by assistance to vulnerable groups (households in family houses and also via social housing entities and flat owners' associations/facility management companies and micro-enterprises), providing tailored advice, and providing energy certificates and renovation passports free of charge to vulnerable households (EPBD Art. 12 and 19). Two types of assistance will be supported – the first one will take the form of the first contact advice by existing field social workers (under the auspices of the Ministry of Social Affairs, Family and Labour) who will provide basic energy advice and identify eligible households. They will direct households to the nearest OSS or other support centre if eligible. Detailed technical advice focusing on vulnerable groups will be provided in the OSS (based on the implementation of the EED and EPBD) where the recipient will be provided with the support for the application process of project calls, including the calls for projects resulting from

[10] Sternová et al. (2010). Energy perfromance and energy certification of buildings. (available in Slovak).

the M&Is described above and technical advice via accredited experts for energy certification. Other types of assistance from field workers (from consumer organisations and NGOs) could be integrated in this measure too if they are trained and will operate under the Ministry of Social Affairs for transparency in financing and to ensure quality by being trained for the measures and investments.

The densification of OSSs by more contact points or OSS creation in regions with more vulnerable groups will also be supported within this measure to ensure easy access also for vulnerable customers living in remote areas. Training, education and capacity-building for stakeholders involved in the implementation of this measure is also included. The target groups for training are: local governments, professionals involved in the advice and design of renovation and energy efficiency improvement, SCF management and administration, and field social workers on basic energy advice. The scheme could be carried out via existing training and capacity building programmes provided by SAŽP, SKSI, and SIEA. These, for example, include the *'Obnov dom mini'* and '*Green solidarity'* schemes.

Within the OSS (created under EED and EPBD) for all citizens, the SCF will provide additional targeted advice for vulnerable groups, manage the provision of free certificates, renovation passports (EPBD Art. 12 and 19) provided by independent external experts for energy certification, involve the existing field workers (the Ministry of Social affairs, Family and Labour) in the first contact energy advice, involve local governments and other stakeholders involved in the SCP implementation in trainings and capacity buildings.

Analysis of Challenges & Solutions

SAŽP provided data on the number of consultations, staff trainings, and overall resources needed. For 20 000 finished renovations from *'Obnov dom'*, 25 000 full consultations were provided. Each consultation was on average up to 10 hours and is performed in stages over the course of the project and includes basic energy consultation and administrative support in each stage of the process (vulnerable status application/determination, steps to get EPC and building renovation passport, grant application, contract signing, and final quality control). The average hourly rate (super-brutto) is now approximately EUR 20. An additional fixed fee for related administrative charges (as custom for EU-funded projects), is equal to 15%. Eligible administrative charges include material and technical expenses, and transport costs for the SAŽP employees.

However, the regional offices of SAŽP are primarily intended for evaluating applications, not the provision of technical advice on renovation. The advice on applications could be carried out by the SAŽP employees from 10 regional offices, who would regularly visit the OSS where they would provide advice to vulnerable groups. Their salaries would be financed only from the SCF, while they would use the OSS premises financed from other sources. To provide well-rounded services,

private sector actors will also have to be involved (e.g., designers, consultants and energy performance assessors) for more technical advice in the OSSs.

The Ministry of Economy of the Slovak Republic is considered to be the implementing organisation at this stage. Nevertheless, this measure requires great coordination efforts. Coordination will be needed between the Ministry of Transport (responsible for EPBD implementation), and the Ministry of Economy (responsible for the EED implementation), which are responsible for the establishment of the OSSs. Further coordination will be required with SAŽP (the implementing body of the 'Obnov dom' scheme) and the Ministry of Labour, Social Affairs and Family of the Slovak Republic (responsible for the area of field social workers) to provide advisory services in the OSSs. Foreseeable implementation challenges are the current lack of professional capacities, conditions have to be specified in the implementation phase for providing free energy certificates and energy passports, field workers' competences have to be established in cooperation with the Ministry of Labour, Social Affairs and Family. Similarly, a clear demarcation of competence will need to be agreed between the abovementioned involved ministries and agencies, which could result in coordination challenges.

Measure Details

The aim is to provide training to those professionals who assist vulnerable households. Training on the inclusive design and the needs of people with disabilities could be included. Information and awareness campaigns (in Slovak and minority languages) are also included to ensure that the target groups are aware of the measure and can utilise its resources. Advice and assistance provided under the OSSs, created in accordance with Directive 2023/1791 Article 22(6) and Directive 2024/1275 Article 18(1) and (2), will be available for all citizens.

Free expert advice was already provided by SIEA in advisory centres between 2016 and 2023 as part of the *'Living with energy'* project. The *'Living with energy'* Centres are under the umbrella of SIEA and the Ministry of Economy of the Slovak Republic. The additionality of this measure lies in the extension of the OSSs or existing support for existing schemes (e.g. *'Obnov dom'*) by a tailored focus on the SCF, vulnerable households and on specific areas, and field workers closer to vulnerable groups (e.g. marginalised groups or specific localities such as less developed priority districts).

Basic energy advice can then be provided by social workers and other professional staff in addition to basic and specialised social advice (SSP) within the following services – field crisis intervention service, low-threshold day centre, integration centre, community centre and low-threshold social service for children and family or by counsellors within specialised social advice. Existing professional staff in registered SSKI, which are present directly in the regions and in the Marginalised Roma Communities, can be used. Most of the professional staff is currently funded under the National Programme 'Together for Communities'. The capacities of the

existing and well-functioning programmes such as 'Healthy Regions' programmes and field social workers (TSP) could be utilised for trainings and education. Comprehensive remuneration, and expansion of the remit of the existing support professions, field social workers, Community Centres, and 'Healthy Regions', is essential in this regard.

Objectives & Targets

The main objective is to increase renovation rates amongst vulnerable groups, the quality of renovation, provide support for the implementation of other M&Is from the SCF, and specifically navigate people towards M&Is provided by the SCP. In particular, the renovation of family houses, apartments, social services facilities and social housing to achieve savings in final energy, primary energy and CO_2 emissions, and reduce fossil fuel consumption and energy expenditures in order to reduce vulnerability and energy poverty. The advice and assistance to vulnerable groups is crucial for success of other M&Is. This measure could also provide advice by trained field social workers on behaviour improvement and soft energy saving intervention that could also contribute to the SCF goals. In the scope of the SCF, this measure will be an extension of advice and assistance in the OSS adapted to vulnerable groups and closer to specifics of the SCF and closer geographically to identified vulnerable groups (households also via social housing entities and flat owners associations/facility management companies and micro-enterprises) as the main target group. The scheme would be carried out via training, education and capacity building programmes for stakeholders involved in the implementation of the SCF M&Is. This measure has an impact on the increased renovation rate and quality of renovation, support for SCF investments implementation, CO_2 emissions reduction and on reducing vulnerability and energy poverty through proper renovation that ensures that real energy cost savings and the Fund's goals are achieved.

Implementation & Administration

The Ministry of Economy of the Slovak Republic is considered to be the implementing organisation at this stage. Nevertheless, coordination will be needed between two Ministries: the Ministry of Transport (responsible for the EPBD implementation) and the Ministry of Economy (responsible for the EED implementation), which are responsible for the establishment of the OSSs. Cooperation with SAŽP will also be necessary as well as the Ministry of Labour, Social Affairs and Family of the Slovak Republic (field social workers).

Estimated costs

The number of contact points, renovated buildings after advice, and assistance provided to vulnerable and marginalised groups is estimated for about 20 000 renovated family houses, 1 500 social housing and social services facilities and 2 320 building managers/associations of flat owners in multiapartment buildings. Approximately 25 000 building energy performance certificates for

family houses issued before and after renovation, and renovation passports will be repaid to accredited experts who should be the main technical advisors. EPCs for apartment building are not a substantial cost as this assessment is prepared for the entire building.

Covering the associated costs for social housing is not expected to pose a significant issue. Estimates also account for applicants for family houses renovation who ultimately decide not to carry out renovations. This is important because the reimbursement for the EPC and the Renovation Passport cannot be made conditional on the renovation actually taking place. There may be valid reasons why some applicants choose not to proceed, and they may not be in a financial position to pay for the EPC themselves.

Currently, approximately 550 trained stakeholders are projected to be involved in the implementation of the SCF measure, including those providing assistance and advisory services. Additionally, the planning process must consider the need for future awareness-raising campaigns to support uptake and informed participation.

Assumptions for costs calculation are listed below.

- 10h/client for 5 000 clients/year (for 4 000 actually renovated family houses per year) and 300 social housing and social services entities per year are assumed, that equals to 331 person months per year dedicated to vulnerable groups.
- Average super gross costs of one OSS employee: EUR 3 000/month.
- Field social workers trained for the first contact energy advice will provide 5 000 instances of assistance (for 4 000 actually renovated houses) per year. 8 hours are assumed per assistance that is 250 person months per year with the average gross costs per field worker employee: EUR 2 500/month.
- Building managers/associations of flat owners (around 464 per year, 2 320 in total depending on the concentration of vulnerable households in one apartment building) will receive support of 6 hours per client equalling to 17.4 person months per year. We expect that building managers are skilled in apartment buildings renovation, so the technical advice will reach quite a few of them, but an awareness rising campaign about possibility to provide subsidies to vulnerable households in apartment buildings is important.

The total number of clients supported is 28 820 during 5 years of the SCF implementation. The family houses owners (25 000) are supported twice, one instance by the OSS (10 hours) and one by field workers (8 hours). Energy performance certificates (issued before and after any renovation) and renovation passports are to be provided for 5 000 family houses per year for free: EUR 1 700 for two energy performance certificates and a renovation passport. EUR 1.2 million is assumed for education training (education materials development, trainers,

trainings, including training of staff responsible for evaluating real energy savings) and the associated awareness raising campaign.

For the analysed measure on the buildings component, the total costs are EUR 53.95 million of which EUR 40.46 million are requested under the Fund, and EUR 13.49 million are covered by the national contribution.

Gender Considerations

In Slovakia, the share of single males and females being identified as energy poor according to the EU-SILC indicators are very similar, which may point to the fact that there is not a significant gender aspect to this measure. At the same time, national data shows that single-parents (mostly women) are more likely to be at risk of poverty. Among households without children, single-person households of women aged 65 and over are most at risk of poverty and social exclusion. When designing advice mechanisms, it should be understood who is the main decision-maker in a household and target the support to them. Gender roles and income gaps have a significant impact on the cultural and practical distribution of this role. A gender perspective needs to be considered in targeting and adapting advice. Women as single parents may require a tailored approach when making decisions about reconstruction.

The full characterisation is presented in Annex B.

Summary

For the analysed M&Is on the buildings component, compliance with the criteria set out by DNSH requirements was assessed in the full characterisation, in line with the DNSH technical guidance to the SCF. The following table summarises the different activities under these M&Is, and how they relate to the DNSH assessment. The DNSH criteria were further considered in the milestones and targets, and relevant ex-ante compliance was included.

Table 4-4 Mapping of buildings sector M&Is against DNSH compliant activities

Measure or Investment	DNSH compliant activities
Investment 1. Family houses renovation	Activities B3.1 (energy efficiency renovation of existing buildings), B5 (installation, maintenance and repair of instruments and devices for measuring, regulating and controlling the energy performance of buildings), B6 (installation, maintenance and repair of renewable energy equipment), and E10 and E11 (storage of electrical and thermal energy) of the Annex to the technical guidance
Investment 2. Support for apartment buildings renovation	Activity B3.1 (energy renovation of existing buildings) of the Annex to the technical guidance

Measure or Investment	DNSH compliant activities
Investment 3. Renovation of social housing in apartment buildings and renovation of social services facilities managed by local governments and non-public providers	Activities B3.1 (energy renovation of existing buildings) of the Annex to the technical guidance, B5 (installation, maintenance and repair of instruments and devices for measuring, regulating and controlling the energy performance of buildings), B6 (installation, maintenance and repair of renewable energy equipment), and B9 (connections to district heating and cooling networks of the Annex to the technical guidance
Measure 4. Advice, professional assistance, capacity building and education	Activity B1 (awareness raising activities) of the Annex to the technical guidance

The following table summarises the targets and milestones of the M&Is analysed in the buildings component.

Table 4-5 Table containing milestones, targets and timeline for the buildings component

M&Is	Milestone/ Target	Name of milestone/target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter/ Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
Family houses renovation	Milestone	Entry into force of programme	Funding scheme put into national law	-	-	-	Q1/2027	Programme entry into force, and legal steps shall be taken for it to enter into force, including compliance with the DNSH requirements set out in activity B3.1 of the annex to the DNSH technical guidance to the SCP.
	Target	Completed renovation of family houses	-	Number of family houses (for households or micro-enterprises) undergo renovation	0	8 000	Q4/2029	8 000 households/micro-enterprises received funding through the programme.
	Target	Completed renovation of 16 000 family houses	-	Number of family houses (for households or micro-	0	16 000	Q4/2031	16 000 households/micro-enterprises received funding through the programme.

M&Is	Milestone/ Target	Name of milestone/target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter/ Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
				enterprises) undergo renovation				
	Target	Completed renovation of 20 000 family houses occupied by target group		Number of family houses (for households or micro-enterprises) undergo renovation	0	20 000	Q4/2032	20 000 households/micro-enterprises received funding through the programme.
Support for apartment buildings renovation	Milestone	Entry into force of programme	Funding scheme put into national law	-	-	-	Q1/2027	The programme shall be established administratively, with legal steps taken to bring it into force, including compliance with the DNSH requirements set out in activity B3.1 of the annex to the DNSH technical guidance to the SCP..
	Target	Supported flat owners - vulnerable households, in	-	Number of supported flat-owners in	0	4 640 flat owners supported	4Q/2029	4 640 flat-owners received funding

M&Is	Milestone/ Target	Name of milestone/target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter/ Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
		renovated multi-apartment buildings		renovated multi-apartment buildings				through the programme
	Target	Supported flat owners - vulnerable households, in renovated multi-apartment buildings		Number of supported flat-owners in renovated multi-apartment buildings	0	9 280 flat owners supported	4Q/2031	9 280 flat-owners received funding through the programme
	Target	Supported flat owners - vulnerable households, in renovated multi-apartment buildings	-	Number of supported flat-owners in renovated multi-apartment buildings	0	11 600 flat owners	Q4/2032	11 600 flat-owners received funding through the programme
Renovation of social housing	Milestone	Entry into force of programme	Funding scheme put into national law	-	-	-	Q1/2027	The programme shall be set up administratively and legal steps be taken for it to enter into force, including compliance with the DNSH requirements set out

M&Is	Milestone/ Target	Name of milestone/target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement	Description of each milestone and target
				Unit of measure	Baseline	Goal	Quarter/ Year	
								in activities B3.1 and B9 of the annex to the DNSH technical guidance to the SCP.
	Target	Completed renovation	-	Square meters renovated	0	945 000 m^2	4Q/2029	A total of 945000 m^2 of gross floor area, as reported in the EPCs, is to be renovated under the programme. For buildings connected to district heating or cooling, it is required to: • Provide certification that the system qualifies as an efficient district heating or cooling system, in accordance with Article 26 of the Energy Efficiency Directive, and • Submit a plan to improve primary

M&Is	Milestone/ Target	Name of milestone/target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter/ Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
								energy efficiency, reduce distribution losses, and increase the share of renewable energy in line with Article 26(5) of the Directive.
	Target	Completed renovation	-	Square meters renovated	0	1 890 000 m^2	4Q/2031	1 890 000 m^2 of gross floor area (as reported in the EPC) renovated through the programme
	Target	Completed renovation of social housing in apartment buildings and renovation of social services facilities managed by local governments and non -public providers	-	Square meters renovated	0	2 362 500 m^2	Q4/2032	2 362 500 m^2 of gross floor area (as reported in the EPC) renovated through the programme. Rough estimation is 1 500 entities supported (based on average floor area per renovated building). Data on the size and total number of social

M&Is	Milestone/ Target	Name of milestone/target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter/ Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
								housing and social service facilities is not available.
Advice, professional assistance, education	Milestone	Entry into force of programme	Funding scheme put into national law	-	-	-	Q1/2027	Future one-stop-shops, will be established in accordance with Directive 2023/1791 Article 22(6) and Directive 2024/1275 Article 18(1) and (2) out of SCF.
	Target	Advice, assistance, provided to vulnerable groups	-	Number of supported clients	0	11 528 clients supported	Q4/2029	11 528 clients supported by advice, contact
	Target	Advice, assistance, provided to vulnerable groups	-	Number of supported clients	0	23 056 clients supported	Q4/2031	23 056 clients supported by advice, contact
	Target	Advice, assistance, provided to vulnerable groups or to social housing and social services entities and education provided	-	Number of supported clients (households in family houses, micro-enterprises, social housing	0	28 820 clients supported (25 000 family houses owners + 1 500 social housing entities + 2 320	Q4/2032	28 820 clients supported.

M&Is	Milestone/ Target	Name of milestone/target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter/ Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
		to stakeholders involved in SCF		entities, owners associations)		owners associations)		

Lastly, the table below summarises the timeline of costs for the M&Is analysed under the buildings component.

Table 4-6 Estimated total costs of the analysed M&Is of the buildings component

Related M&Is	Relevant time period		Estimated costs for which funding from the Fund is requested Total requested If available: split by year							
	From date	To date	Amount (MEUR)	2026	2027	2028	2029	2030	2031	2032
Family houses renovation	1.1.2027	31.12.2032	605.1		0.1	121	121	121	121	121
Support for apartment buildings renovation	1.1.2027	31.12.2032	139.3		0.1	27.84	27.84	27.84	27.84	27.84
Renovation of social housing	1.1.2027	31.12.2032	378.1		0.1	75.6	75.6	75.6	75.6	75.6
Advice, professional assistance, education	1.1.2027	31.12.2032	53.95		1.2	10.55	10.55	10.55	10.55	10.55
			Total: 1.176.45							

4.2.2. Transport

Before presenting the M&Is of the transport component, it is important to introduce the Institute of Environmental Policy's study that provides the backbone of both targeting, administrative identification, and calculation assumptions. The study "Nemám auto, nemám autobus"[11] offers a comprehensive overview and analysis of transport poverty in Slovakia and its accompanying documents provide the baseline calculations used in particular for Measure 7 which aims to extend the existing discounts in the public transport system.

Investment 5: Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points

Analysis of Challenges and Solutions

The investment is addressing the need to modernise the fleet of vehicles used in public transport by transitioning to zero-emission vehicles. This is particularly relevant in the case of public bus transport, and partially in rail transport concerning the replacement of diesel drivetrain-based vehicles. The purchase of electric vehicles is financially demanding for public transport ordering institutions who pay for the service in public interest and these significantly increased costs may be passed onto the final customer/passenger via the increased price or fare, in case other cost-saving measures are insufficient.

By providing the subsidy to modernise the fleet, two critical aspects are addressed: (1) TCO and the cost of the service due to lower costs on fuel and no costs for purchase (if 100% subsidy), and (2) the operation of the new zero emission fleet will directly contribute to climate change mitigation (18% of GHG is accounted for the transport sector, 2011[12]). Reducing operational costs through this investment can help minimise fare increases, ensuring the affordability of public transport. It also protects electric vehicle operations from the volatility of fossil fuel prices. In the long term, these savings can help maintain and even enhance the accessibility and reliability of public transport services.

Details

The investment falls under the "Fleet expansion: Expand and modernise public transport fleets with low-emission vehicles such as electric buses" category.

The investment's goal is to provide funding for replacing old (less emission-effective) vehicles in public transport, including railroad vehicles, buses, microbuses or buying new ones for extension of the connections in the regions with insufficient availability of public transport. It is preferable to strengthen the public transport service via establishing new connections or denser public

[11] Ministry of Environment of the Slovak Republic. (2025). I don't have a car, I don't have a bus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html. (available in Slovak).
[12] Slovak Hydrometeorological Institute. (n.d.). Transport – Greenhouse gas and pollutant emissions from the transport sector. https://oeab.shmu.sk/emisie/doprava/trendy.html.

transport schedule. The scheme should be designed to procure zero-emission vehicles and railroad vehicles in line with Act No. 214/2021 Coll. on the promotion of clean transport vehicles. Bike carriers for the vehicles should be included in the scheme to provide the possibility to use non-motorised transport from destination or origin stop. Additionally, the vehicles should be low-floor and low-entry to increase accessibility for people with reduced mobility. The aim is to lower emissions, enable multimodal transport trips, and increase the quality of public transport. Together with expected lower OPEX for the operation of the EV buses, all mentioned benefits will help to tackle the expected increase in the fossil fuel price due to EU ETS2 introduction, and thus lowering the economic burden passed on the passengers in the public transport. Parts of financing should be allocated to the installation of charging points for vehicles in depots and at final stops/terminals.

Based on the modelling results, the criteria for prioritisation for obtaining funding should be based on the availability of public transport service and by the developed transport-poor region index. Standards for the availability of public transport are currently under preparation and will be defined by the National Transport Authority, a body of the Ministry of Transport. The study – the IEP Index – prepared by the Institute of Environmental Policy indicates which regions may be at risk of transport poverty relative to others. The investment will be designed to prefer and prioritise transport poor regions using the abovementioned standards or the IEP Index[13], thereby achieving emission reduction via the purchase of new vehicles (new fleet compared to the old one) or by the TCO change. We suggest using the criterion of establishing of new connection or providing additional public transport service to strengthen the density of the public transport schedule for the scheme. Eligible recipients would be self-governing regions, municipalities, companies established by municipalities, ZSSK, and companies providing public transport on the contract base in the public interest.

The investment is new, except for railroad vehicles that may be funded from existing EU funds (Programme Slovakia, Recovery and Resilience Plan). In that case, this investment is the extension of the current schemes. Under the measure 2.8.1 in Programme Slovakia, focused on the "support for the development of sustainable mobility outside Bratislava self-governing region", it is possible to obtain funding for the renewal of vehicles for public transport (alternatively powered buses including the related charging and recharging infrastructure).

[13] The IEP index indicates which municipality and region may be considered as transport poor. It is the composite index consisting of 13 sub-indexes, for example: average travelling time, number of connections, travel time to nearest hospital, share of population with public transport stop available up to 500 meters, average income, average age of a car, share of pensioners, etc. For more information see DLV2 or study, table number 2.
Ministry of Environment of the Slovak Republic. (2025.). I don't have a car, I don't have a bus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html. (available in Slovak).

Objective & Targets

The objective of the investment is to provide service of public transport in a high-quality option for travelling as an alternative to using a car. This will be achieved by the replacement of the current public transport vehicle fleet to a zero-emission fleet and provide funding for related infrastructure (charging points). The new fleet will ensure better quality of public transport and zero-emission operation, thus contributing to the reduction of fossil fuels and emissions. To ensure efficiency of the investment from the point of the impact of target group, the index prepared by the Institute of Environmental Policy will be used to define the prioritisation of regions and support for the purchase of the vehicle. New vehicles should have a lower TCO including fuel costs and thus mitigating the impact of ETS2 on the transport users, more significantly on the lower income groups.

Implementation & Administration

The main authority for the public transport is the Ministry of Transport of the Slovak Republic and its organisation – National Transport Authority (NADA). Public transport in Slovakia is provided by the government (through the Ministry of Transport and by ordering to railroad company – ZSSK), by self-governing regions (by ordering in private or public companies based on the public procurement), by municipalities (by ordering based on public procurement to private or public companies or by ordering through their own municipality company).

The investment is proposed for self-governing regions, municipalities, ZSSK and public or private companies providing public transport (based on the public procurement and order of the self-governing region or municipality).

Challenges of the investment are related to the process of public procurement for the vehicles and possible delays of the vehicle delivery. Additionally, when building new charging points and connections to the grid, the process of obtaining the necessary building permits may be a challenge both in the time necessary to acquire respective permits and in fulfilling all the procedural steps in the permitting process.

Cost estimation

For the analysed investment, the total costs amount to EUR 232 605 000 of which EUR 174 453 750 are requested under the Fund, and EUR 58 151 250 are covered by the national contribution. The basic assumptions for the calculations (using inputs from NADA, IEP and SEVA) are as follows:

- Unit price of a short electric bus: EUR 350 000;
- Unit price of a long electric bus: EUR 510 000;
- Unit price of a battery powered railroad vehicle: EUR 8.675 million;
- Unit price of a charging point: EUR 30 000 (as current call of the Recovery and Resilience pan for public charging stations);
- Expected number of supported short buses: 217;
- Expected number of supported long buses: 217;

- Total expected number of buses: 434 (5% of bus fleet in Slovakia in 2023);
- Expected support for battery railroad vehicles: 5;
- Expected number of charging points: 87 (1 for 5 buses).

Gender Considerations

The usage of private and public modes of transportation is gendered in Slovakia[14]. Men tend to use private cars to commute and the quality improvement in public vehicles fleet may motivate men to decrease their use of private cars. On the other hand, women seem to rely more on public transport in sparsely populated and rural areas and, subsequently, will be positively affected by the higher accessibility of public transport services. This is particularly pertinent whenever the alternative of owning a private car is limited for women.

The full characterisation is presented in Annex B.

Measure + Investment 6: On-demand transport

Details

The measure + investment[15] falls under the "On-Demand & Shared Mobility" category. It targets vulnerable households and vulnerable transport users in transport poor regions. The measure + investment would include the purchase of zero emission vehicles, charging infrastructure, operating expenses of the connection for 3 years and at the maximum level of 50%, and ordering and dispatching system for citizens (e. g. necessary software).

The measure + investment is targeted at transport-poor areas and regions, and at households or individuals in rural and semi-urban areas with bad or insufficient (time or frequency) connections to the economic centre, hospital, or other essential services. Consequently, people with existing health problems and disabled persons with limited mobility are also a targeted group.

This measure + investment is complementary and should not be a replacement of regular transport. Moreover, it should be based on the ad-hoc needs of vulnerable groups. The model of door-to-door, "request call transport" or standard transport with defined stops may be used as well. The selection of the model will define the need and the complexity of the ordering and dispatching system.

The measure + investment would provide support for introducing on-demand connections to municipalities, self-governing regions, or organisations in the social care system, including NGOs. The chosen administrative arrangements will determine classification of support as M&Is of investment[16].

[14] These are assumptions based on Figure 3-37 in Deliverable 2: "Individual car transport (the most affected by ETS2) is predominantly used by men aged between 30 and 45 years. Women are more likely to use public or individual non-motorised transportation. Therefore, they could be less exposed to the impact of ETS2 on transport costs.".

[15] This programme has both the element of an investment (purchase of long-term transport assets) as well as measure (provision of free transport to vulnerable individuals).

[16] Our assessment is that the support would be an investment if the vehicles are owned by municipalities and a measure if support is provided as a grant to privately owned public transport providers.

The primary criterion for supporting on-demand transport is the increased inclusion of citizens residing in the transport poor regions and ensuring the accessibility and availability of modes of transport (based on the future NADA standards or the IEP work on transport poverty index). The condition to target vulnerable transport users based on the transport poverty index will ensure effective targeting. Regarding the selection process of introduced routes, the criteria should include cost effectiveness, e.g. the costs per kilometre and per expected passenger. The integration of new connections of on-demand transport service with the existing rail and bus services will be done by NADA as the central body for the public transport planning in Slovakia. Integration will be ensured by the organisers of the regional integrated systems; the selection of lines and routes will be the responsibility and the competence of the regional ordering institutions.

This measure + investment is a new scheme.

Analysis of Challenges and Solutions

In Slovakia, 4.9% of the population in rural areas has very difficult access to public transport, compared to 3% of the population overall. The Deliverable 2 modelling has shown that from 12% to 14.5% of the population is deemed vulnerable, depending on the level of the ETS2 price, in sparsely populated areas. The impact of ETS2 costs will have to be tackled especially for those using private cars to commute without any alternative. Furthermore, individual motorised transport is used more frequently in rural areas to commute to cities with basic services.

The measure + investment addresses the accessibility of the public transport in rural and sparsely populated regions by providing an option for public transport connection extension by the on-demand service. It is an alternative to using a car (for those who are forced to have/own one) or a new option for the fulfilment of travel needs for citizens that do not have/own a car. By improving the affordability and availability of public transport, the measure + investment helps to mitigate the financial impact of rising fossil fuel costs associated with ETS2, ensuring that public transport remains a competitive and sustainable mobility option.

Objective & Targets

The objective of the measure + investment is to provide funding for on-demand public transport to improve the accessibility of connections for citizens, mostly in underserved rural and remote areas and regions, thereby targeting vulnerable transport users with limited transport options. On-demand transport should provide better accessibility to essential services (education, healthcare, work, shopping, public administration, hobby) mostly in sparsely populated areas. It is preferable to connect these regions with train stops or hubs for better connections to mentioned services. Low-income households will be affected as on-demand transport is a cheaper alternative compared to using a private car. Using on-demand public transport in underserved times for households not owning a car makes the transport available for this group of citizens. The measure + investment

can reduce the dependency for owning a car and reduce forced car ownership in regions with insufficient public transport connections. For the measure + investment, the support of only zero emission vehicles is proposed to contribute to fossil fuel reduction (and thus GHG emission reduction). Vehicles should be adjusted to transport passengers with disabilities/limited mobility, if necessary.

Implementation & Administration

The main authority for the public transport is the Ministry of Transport of the Slovak Republic and its organisation NADA. Public transport in Slovakia is provided by the government (through the Ministry of Transport and by the services of the Railroad company – ZSSK), by self-governing regions (by ordering services via private or public companies based on procurement processes), by municipalities (by ordering services based on the procurement to private or public companies or by ordering through own municipality company). The measure + investment will be coordinated and integrated to the existing public transport schedules. It is complementary to the existing schedule and it will be new service.

The measure + investment is therefore proposed for and will be implemented by self-governing regions, municipalities and public or private companies providing a public transport (based on the public procurement and order of the self-governing region or municipality). In addition, NGOs offering social services may apply for the scheme if they meet the requirement of the Act No. 332/2023 Coll. on public transport.

Challenges of implementing the measure + investment lie in the integration of on-demand transport into the standard public transport network and in securing sustainable funding (the measure + investment proposes 3 years of funding operative expenses (OPEX) for maximum 50%). By OPEX, we consider the following in particular: fuel costs; vehicles maintenance costs and tyres costs; salaries of drivers, administrative staff and mechanics; insurance costs; fees for using roads or highways; cleaning and disinfection costs; and other administrative costs related to transport (licences, accounting, dispatching, etc.). An additional challenge is the development of an ordering and dispatching or booking system that needs to be user friendly for a broad spectrum of users (the elderly, those without connection to internet, and those with no or limited IT competency).

Cost estimations

For the analysed measure + investment, the total costs are EUR 7 900 000 of which EUR 5 925 000 are requested under the Fund, and EUR 1 975 000 are covered by the national contribution. The total costs are divided into investment costs on vehicles, dispatching/ordering/booking system and charging stations amounting to EUR 3.4 million, and OPEX costs reaching EUR 4.5 million. Estimations on the price of vehicles and charging points were consulted with SEVA to reach estimates based on industry data.

The basic assumptions for the calculations are as follows for 20 lines with 2 vehicles per line needed:

- unit costs of a vehicle (8+1 passengers): EUR 62 500;
- unit cost for a combined slow and fast charging point/station: EUR 30 000 (same costs are currently used by call of the Recovery and Resilience Plan for public charging stations), 1 per line
- OPEX estimation: EUR 75 000 per vehicle (a maximum of 50% to be covered by the scheme for 3 years after opening the service at the line);
- ordering/dispatching/booking system development: EUR 15 000 per line.

Gender Considerations

The usage of private and public modes of transportation is gendered in Slovakia[17]. Men tend to use private cars to commute and introducing on-demand transport services may motivate men to decrease their use of private cars. On the other hand, women seem to rely more on public transport in sparsely populated and rural areas and, subsequently, will be positively affected by the higher accessibility of public transport services. This is particularly pertinent whenever the alternative of owning a private car is limited for women.

The full characterisation is presented in Annex B.

Measure 7: Provision of discounts on public transport fare for citizens in material deprivation

Measure Details

The measure falls under the 'Affordable transport solutions: Offer subsidies for public transport passes and other affordable mobility options to ensure accessibility for all' category.

It targets vulnerable transport users – citizens in material deprivation, the poorest part of the population. There is already a system of reduced fare in place. For train transport, discounts are applied for children up to 6 years (zero fare), for students up to 26 years after registration (zero fare, a quota of how many zero fare tickets can be issued for each train is set) or a discount of 50% in general, and for pensioners above 62 years (zero fare). For bus transport, discounts depend on the ordering institution. In general, discounts are applied for children up to 6 years (usually zero fare), students up to 26 years (usually a discount of 50%), and pensioners above 62 years (50% discount most often). A reduced fare is also applied for people with health disabilities in both train and bus transport, including an accompanying person.

The reimbursement of travel expenses for transport based on the Act 597/2003 Coll. on the financing of primary schools, secondary schools and school facilities is

[17] These are assumptions based on Figure 3-37 in Deliverable 2: "Individual car transport (the most affected by ETS2) is predominantly used by men aged between 30 and 45 years. Women are more likely to use public or individual non-motorised transportation. Therefore, they could be less exposed to the impact of ETS2 on transport costs.".

already in place. Pupils in kindergartens and primary schools are eligible and the reimbursement is provided by the Ministry of Education, Research, Development and Youth.

Compared to the existing system of discounts, this measure is additional for high-schools students in the situation of material deprivation and for adults in the situation of material deprivation. We suggest to introduce:

- a discount of 100% of fare for students attending primary or high school or other forms of the educational process; and
- a discount of 50% for adults (age 18 years and above) and citizens above 15 years of age when not enrolled at an education institution based on the criteria set in the bullet above.

From a territorial perspective, the measure is aimed at the entire territory of Slovakia although we assume the majority of citizens in material deprivation are living in the less developed regions as these have been identified as poorer ones according to the IEP index.

The measure is new scheme following current system in place. The scheme is additional to the existing discounts and reduced fare in public transport.

This measure was chosen to tackle economic perspective of transport poverty. In the initial proposal, the measure was proposed as broader one – to integrate all systems of discounts in Slovakia and to tackle those in the transport poverty from the economic view. However, the high administrative burden of such a complex measure and targeting of citizens was seen as unfeasible. Therefore, the measure was narrowed down to only citizens in material deprivation. While this may appear to reflect a primarily social or economic perspective, we assume that a significant majority of citizens in material deprivation may have a problem with covering their travel expenses. The form of compensation for the public transport providers, municipalities, self-governing regions and ZSSK was chosen because of past experience which revealed frequent misuse of direct financial support for travel. In particular, among low-income groups, funds intended for transportation were often diverted to other purposes or travel cards with prepaid credit were not used for travel at all.

Analysis of Challenges and Solutions

The system of discounts in public transport already exists in Slovakia. This system is not integrated, and the discounts depend on the mode of the transport and which organisation ordered the service (as the public transport service is ordered by the Ministry of Transport, self-governing regions, and municipalities). The service itself is carried out by a state-owned entity (ZSSK), municipality-owned entities (usually cities and towns own a company providing the transport service) or by private companies on the basis of public procurement of transport services

in the public interest. In general, discounts for children, students, pensioners, and citizens with disabilities are in place.

The measure is aimed at citizens officially classified under Slovak law as living in material deprivation, representing the lowest-income segment of the population. By subsidising access to public transport for these individuals, it guarantees that their essential mobility needs are met. This component focuses on people in transport poverty, who are not yet directly exposed to the effects of ETS2. As ETS2 is expected to raise fossil-fuel costs for both private vehicles and public transport, thereby increasing the financial pressure on low-income households, the measure is intended to alleviate that burden.

Objective & Targets

The objective of the measure is to provide funding for discounts on the fare for citizens in material deprivation and thus improve the affordability of public transport for the poorest part of the population.

The measure is targeting vulnerable transport users – citizens in material deprivation, the poorest group of the population (material deprivation and social assistance and benefits are defined in Act of 417/2013 Coll. on aid in material deprivation). As a result, low-income households will be affected as the measure should improve the affordability of public transport for above mentioned individuals or even enable the transport.

Implementation & Administration

The main authority for the public transport is the Ministry of Transport of the Slovak Republic and its organisation NADA. Public transport in Slovakia is provided by the government (through the Ministry of Transport and by ordering to railroad company ZSSK), by self-governing regions (by ordering in private or public companies based on the public procurement), by municipalities (by ordering based on public procurement to private or public companies, or by ordering through their own municipality company).

The measure is proposed for self-governing regions and municipalities and providers of the public transport based on the agreement in the public interest.

The administrative identification of citizens in material deprivation should be conducted by the regional offices of the Office of Labour, Social Affairs and Family as individuals or households belonging to the threshold of material deprivation (set by the “minimum standard of living”) and entitled to receive this social benefit are registered at the local level of this Office. If interested in discounted travel fares, the eligible person will request a confirmation for the purpose of obtaining the discount from the Office (self-identification).

The system of providing reduced fares is proposed through the issuance of travel cards for vulnerable citizens. However, other options, e.g. mobility wallet types, may also be used when designing the measure.

Cost estimations

For the analysed measure, the total costs are EUR 50 133 020 of which EUR 37 599 765 are requested under the Fund, and EUR 12 533 255 are covered by the national contribution. These costs are additional to the existing system of provided discounts on fares and tickets already in place[18].

Cost assumptions are based on the existing system of the discounts on fares in the Slovak Republic. The expected costs of the measure came from the IEP study on the transport poverty and its calculations. The IEP assumptions of costs are based on the calculations of[19]:

- the additional cost per journey: EUR 0.52 for students and EUR 0.44 for adults (both without VAT);
- number of journeys: 15 589 945 per year;
- number of citizens in material deprivation by category (students, adults) and by average mobility (children without students are not counted as they are not eligible under this measure): 16 732 students and 116 744 adults;
- price of the transport card: EUR 4.58 (without VAT) per card.

Gender Considerations

Gender aspect is not addressed by the measure.

The full characterisation is presented in Annex B.

Investment 8: Investments in railway infrastructure

Investment Details

The investment falls under the 'Infrastructure development: Investment in the development of public transport infrastructure, including new routes' category.

The aim of the proposed investment is to improve the quality and connectivity of railway services in Slovakia, specifically, in transport-poor regions to enhance the offer and accessibility of public transport. The projects presented below (for which the funding is intended) are located in two self-governing regions with prevalent transport poverty according to the IEP analysis[20] - the Prešov self-governing region with the worst level of transport poverty and the Košice self-governing region which is characterised as the third most vulnerable. According to the report,

[18] Ministry of Transport and Ministry of Finance (2016). Transport spending review. https://www.mfsr.sk/files/archiv/uhp/3370/76/SK-spending-review-transport-final-rep-Oct-2016-EN.pdf. Available data on subsidies for discounts in public transport may be found in chapters 7.1 to 7.3.
Additional source for rail transport: STVR (2024). Prežili štyroch premiérov aj konsolidáciu: Vlaky zadarmo fungujú desať rokov, podľa odborníka je čas na zmenu. https://spravy.stvr.sk/2024/11/prezili-styroch-premierov-aj-konsolidaciu-vlaky-zadarmo-funguju-desat-rokov-podla-odbornika-je-cas-na-zmenu/.

[19] For more information on calculations see the study by IEP. Specifically, the file "Tabuľka opatrení". The Institute of Environmental Policy (2025). Nemám auto, nemám autobus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html.

[20] Institute of Environmental Policy. (2025). I don't have a car; I don't have a bus – Analysis of transport poverty in Slovakia to support measures of the Social Climate Plan. https://www.minzp.sk/files/iep/analyzy/2025_2_mobilita_dopravna_chudoba.pdf, page 17.
The IEP used composite index based on the 13 subindexes. The DEA method was used for developing the index. The result is at the municipality level and municipality are ranked from 1 (best) to 10 (worst)

107 000 citizens in the Prešov self-governing region and 58 000 citizens in the Košice self-governing may be vulnerable.

Consequently, the investment should be provided for funding five railway infrastructure projects. This includes four railway lines/tracks dispatching and remotely controlling crossing systems on the following routes: Humenné – Medzilaborce, Humenné – Stakčín, Poprad – Stará Ľubovňa, and Nálepkovo – Margecany. The fifth project is the electrification of one railway track on the route Prešov – Kapušany.

The selected railway lines are in bad condition resulting in reduced overall speed, no possibility to add more trains to the lines, thus decreasing the availability of public transport, and the lines are not electrified. The reconstruction of the lines is included in the Prioritisation of the railway infrastructure – a strategy document of the Ministry of Transport[21] which includes the methodology and categorisation for prioritising railway projects. This is also based on the integration and availability of both existing rail or other transport services. However, it is important to note that the selected projects presented above are in the very early phases of feasibility studies and no technical documentation has been prepared yet.

We suggest the implementation of other M&Is under the SCF and other programmes or funds to complement the railway investment in the selected regions. We recommend close integration of the M&Is regarding (i) fleet replacement, (ii) on-demand transport, and (iii) building cycling infrastructure with the investment in railway infrastructure.

All investments should be carried out by ŽSR, which is the state-owned railway company responsible for the railway infrastructure in Slovakia. ŽSR is funded by the government budget as well as the income from the fees on using railway infrastructure. However, government funds are insufficient and funding from the Operational Programme Slovakia and the Recovery and Resilience Plan is in place. The CEF funds are also currently used by ŽSR. Funding from the SCF would be additional for the railway lines in these five transport poor regions.

Analysis of Challenges and Solutions

There are 3 630 km of railway lines in Slovakia. The most important are the lines that connect the west and east of Slovakia and those that lead abroad, especially to the Czech Republic, Hungary and Austria. These tracks are funded by the state budget or EU funds. Regional and local lines have seen a decline in passengers over the last 30 years due to the improving economic situation of citizens and the associated significant increase in automobile use[22]. Given the efforts to

[21] Ministry of Transport of the Slovak Republic. (n.d.). Priorities in railway infrastructure construction. https://www.mindop.sk/priority/zeleznice.
[22] Ministry of Internal Affairs of the Slovak Republic. (n.d.). Total number of registered vehicles. https://www.minv.sk/?celkovy-pocet-evidovanych-vozidiel-v-sr.

decarbonise the economy and transport, it is essential that public transport represents an affordable alternative for travel and ensures quality standards. Investments in infrastructure and its modernisation are aimed precisely at this area. In this way, it is possible to achieve a modal shift and more passengers in rail, less emission-intensive, transport. At the same time, rail transport – as governmentally subsidised transport – represents a cheaper alternative to the use of cars, so addressing the possible increase of the fuel price due to the introduction of ETS2.

Objective & Targets

The objective of the investment is the improvement of the quality and accessibility of public transport options stemming from the possible increase and enhancement of connections via the reconstruction of five railway lines/tracks in the transport-poor regions.

The investment is specifically targeting the following transport poor districts found in the Prešov and Košice self-governing regions by reconstructing existing railways: Humenné, Medzilaborce, Snina, Stará Ľubovňa, Kežmarok, and Gelnica.

The project of electrification is targeting the better connection to the Humenné and Bardejov districts.

It is expected that the investment will improve the quality of the public transport, increase the number of public transport connections and thus promoting the shift to public transport and improving its accessibility.

The investment it is expected ensure:

- the dispatching of 154.7 km of lines;
- the electrification of 9.8 km of lines;
- saving time of 18 minutes in total after the dispatching system reconstruction (on 4 lines); and
- increasing the number of passengers by 4.7% in average after dispatching system reconstruction (on 4 lines).

Data for the public transport service according to the mode: Statistical Office of the Slovak Republic (2025). Osobná doprava - prepravené osoby a výkony – mesačne. https://datacube.statistics.sk/#!/view/sk/vbd_sk_win2/do1802ms/v_do1802ms_00_00_00_sk. Statistical Office of the Slovak Republic (2016). Výkony osobnej dopravy [do2016rs]. https://datacube.statistics.sk/#!/view/sk/VBD_SLOVSTAT/do2016rs/v_do2016rs_00_00_00_sk Information may also be found in Spending review on transport by the Value for Money Department, Ministry of Finance, p. 64: Ministry of Transport and Ministry of Finance (2016). Transport spending review. https://www.mfsr.sk/files/archiv/uhp/3370/76/SK-spending-review-transport-final-rep-Oct-2016-EN.pdf. Available data on subsidies for discounts in public transport may be found in chapters 7.1 to 7.3. Articles regarding cancellation of the lines and connections: TA3 (2012). Vlaky vo viacerých regiónoch končia. https://www.ta3.com/clanok/14677/vlaky-vo-viacerych-regionoch-koncia.; Railpage (2011). Rušenie aj toho posledného, čo tu zostalo. https://www.railpage.net/rusenie-aj-toho-posledneho-co-tu-zostalo/.; SME (2011). Rušenie železničných spojov by malo najtvrdší dopad na Trenčiansky kraj. https://mytrencin.sme.sk/c/5721065/rusenie-zeleznicnych-spojov-by-malo-najtvrdsi-dopad-na-trenciansky-kraj.html.; Svet Dopravy (2023). Trend vývoja v cestnej osobnej doprave a pandémia Covid-19. https://www.svetdopravy.sk/trend-vyvoja-v-cestnej-osobnej-doprave-a-pandemia-covid-19/.

Implementation & Administration

The investment would be implemented by ŽSR and the Ministry of Transport.

Foreseeable implementation challenges are:

- the process of project documentation and obtaining all permits, including process of EIA; and
- the process of public procurement for building the infrastructure and the possible delays.

To mitigate the challenges, ŽSR and the Ministry of Transport will need to establish an experienced project team to cover the obstacles and problems with documentation, including covering the EIA process according to the Slovak legislation, and the building permit procedure. For the construction phase, the quality of public procurement documentation will be crucial. For the addressing of possible delay during construction phase, public procurement may use the qualitative criterion on the length of the construction and benefits for earlier competition of the construction.

Cost estimations

For the analysed investment, the total costs are EUR 165 000 000 of which EUR 123 750 000 are requested under the Fund, and EUR 41 250 000 are covered by the national contribution. Below is a specification of the lines and their corresponding costs:

1. Dispatching of line Humenné – Medzilaborce:
   - Length of the line: 40.9 km
   - Investment costs: EUR 37.4 million

2. Dispatching of line Nálepkovo – Margecany:
   - Length of the line: 39.5 km
   - Investment costs: EUR 30.8 million

3. Dispatching of line Poprad – Stará Ľubovňa:
   - Length of the line: 47.4 km
   - Investment costs: EUR 52.8 million

4. Dispatching of line Humenné – Stakčín:
   - Length of the line: 26.9 km
   - Investment costs: EUR 25.3 million

5. Electrifiction of line Prešov – Kapušany:
   - Length of the line: 9.8 km
   - Investment costs: EUR 18.7 million

Gender Considerations

The usage of private and public modes of transportation differs by gender in Slovakia. Women seem to rely more on public transport to commute and, subsequently, will be positively affected by the higher accessibility and improved

quality of public transport services. This is particularly pertinent whenever the alternative of owning a private car is limited for women.

The full characterisation is presented in Annex B.

Investment 9: Scheme for building bicycle infrastructure

Analysis of Challenges and Solutions

As it currently stands, many small municipalities do not have sufficient funding for the preparation of the documentation needed to request the funding for cycling infrastructure projects from various existing schemes and funds. These municipalities are hesitant to prepare the necessary documentation, as there's no guarantee they will be able to recover those expenses — they fear the costs might be treated as sunk. What is more, small municipalities often do not have enough financial resources to even cover the project documentation expenses. Therefore, we propose technical support to tackle this problematic issue to help municipalities to cover expenses for the preparation phase of the projects.

The investment faces challenges related to the preparation of technical documentation and the public procurement process for the construction phase. To overcome this barrier, the investment plan includes technical support as a key solution. This support mechanism is designed to help municipalities finance the preparation phase of projects, including feasibility studies, technical designs, and other required documentation. By covering these initial expenses, technical support reduces the financial risk for municipalities and encourages greater participation in funding programs.

Beyond the documentation phase, another major challenge is the public procurement process for the construction phase of the projects. This process is often complex and highly regulated, requiring specific expertise to navigate effectively. Many municipalities and self-governing regions lack the in-house capacity or experience to manage procurement procedures in line with legal and financial standards. To address this, the proposed solution encourages municipalities to either allocate qualified internal staff to oversee the procurement process or to partner with experienced professional agencies specializing in public procurement. These partnerships can help ensure compliance with relevant regulations, increase efficiency, and improve the overall success rate of the projects.

Investment Details

The investment falls under the “Bicycle infrastructure: Develop safe and attractive cycling infrastructure, including bike paths separated from motor traffic, and on-street bike lanes in lower-traffic streets” category. It targets low-income and middle-income citizens and households that live in transport poor regions. The project should be located in the transport poor regions based on the Institute of Environmental Policy index on transport poverty. The investment is focused on the building and construction of new bicycle paths and related infrastructure in

Slovakia. The investment should include bicycle racks and shelters and traffic counters. Where possible, cycling paths may be extended for paths for pedestrians to enlarge the impact of the investment on the non-motorised modes of transport users.

The investment will target vulnerable transport users by improving access to safe, affordable, and sustainable transport options in transport-poor regions where reliance on private car ownership is one of the primary modes of transportation. From a spatial perspective, data shows that most of the active mobility is carried out within the city or within rural areas, but not for journeys that connect cities or cities and rural areas. The support to the expansion of bicycle infrastructure should motivate and contribute to the mode shift of citizens towards a non-motorised mode of transport, by providing new connections to economic centres, institutions, important residential areas, or important industrial areas where the intensity of transport of citizens is high. A secondary effect will be the reduction of emissions and the development of active transport in Slovakia and the improvement of traffic security for bicyclists, mostly driven by municipalities and regional administrations.

Currently, there are 18 608.64 km of bicycle paths in Slovakia (including tourist paths) and only 1 358.64 km are dedicated to daily use and commuting purposes. In Slovakia, the share of bicycle transport on the total modal split was 8% and the share of distance by bicycle was 3% of the total length of travel (share of kilometres driven). The average length of journeys travelled by bicycle was around 4 km. The use of bicycle as a mode of transport for journeys with a distance up to 5 km[23] is high compared to other modes[24].

We propose using the following criteria when assessing the project and by selection of project for support.

- **The location of the project in the transport poor region is preferable, at least 75% of the funding shall be used in transport poor region.** The Institute of Environmental Policy index[25] on transport poverty may be used to define transport poor region.
- **Public transport connectivity.** Prioritisation of paths that connect public transport stop or point with the economic centre, institutions, important transport poor or underserviced residential areas, or important industrial areas where the intensity of transport of citizens is high is recommended. This criterion should be used to integrate cycling infrastructure with other M&Is in the transport component of the SCF, mainly the fleet change of the

[23] The study of the Institute of Transport Policy by the Ministry of Transport of the Slovak Republic (2020). How we travel – the mobility behaviour of the population. https://www.mindop.sk/ministerstvo-1/doprava-3/institut-dopravnej-politiky/publikacie/komentare
[24] See chart number 6 at the page 10 of the above-mentioned study.
[25] For the construction of the index see the study of the Institute of Environmental Policy.
Ministry of Environment of the Slovak Republic. (2025.). I don't have a car, I don't have a bus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html. (available in Slovak).

public transport vehicles to electric ones, and the investment in railway infrastructure. We consider connecting relevant M&Is as one of the main conditions for assessment or even as a condition for the eligibility of the cycling infrastructure projects.

- **Cost efficiency of the project.** The ratio of costs to the length of the path in km may be used (see article on the CBA by the Ministry of Transport).
- **Other benefits:** for example, the double use of path for bicycle and pedestrians.

Part of the investment should be dedicated to technical support to the eligible institutions for preparing projects of bicycle paths. This support should be covered centrally and should include preparation of feasibility studies; technical project plans; advice in the route selection; and other support to gain all permits needed for construction. Consequently, the recipient obtains all the technical documentation needed for applying for the overarching financing scheme under this investment. In case of not being successful under the scheme, the documentation is possible to use under other schemes or for funding by the recipient itself. The selection process of eligible recipients should be based on the relation to the other M&Is of the transport component of the SCF and on the belonging to the transport poor region, such as M&Is 5, 6, and 8.

As a result, municipalities and regional authorities will be willing to prepare project documentation, as many smaller cities or villages do not have financial sources for the preparations of the projects and are not willing to spend budget without guarantee of the final approval of the investment. Some smallest municipalities do not even have sources to cover expenses on technical documentation. Eligible recipients for the investment would therefore be self-governing regions, municipalities, and ŽSR.

For the evaluation of applications, it is recommended to use the existing methodology based on cost-benefit analysis (CBA), developed by the Ministry of Transport, which is already applied in calls under the Recovery and Resilience Plan.

The investment is additional to the existing scheme offered by the Ministry of Transport and schemes under EU funds (Programme Slovakia and Resilience and recovery plan). From previous EU programmes (Integrated regional programme and INTERREG), a total amount of EUR 120 million was spent. The call from the national budget of the Ministry of Transport in 2021 was allocated the amount of EUR 13.8 million. 76 projects were supported from the Resilience and Recovery Plan in the amount of approximately EUR 74 million (the total allocation is EUR 102 million), with the Recovery and Resilience Plan ending in the year 2026. In Programme Slovakia, a relevant call from the measure 2.8.2 was opened in 2024 with the allocation of EUR 84 million. Programme Slovakia will end in 2027.

However, there is still demand for such a type of investment in Slovakia and it is mainly driven by municipalities and self-governing regions. The funding of cycling infrastructure from the SCF will be continuously linked to the previous programs.

Objective & Targets

The investment's objective is the extension of the existing bicycle paths infrastructure in the Slovakia and the provision of an active transport mode for citizens as an alternative mode to using private cars, specifically in transport poor regions. The goal is the construction of new bicycle paths for daily travel purposes with related infrastructure and technical support for beneficiaries for project technical documentation. The construction of cycling infrastructure has a secondary objective to unlock the modal shift to an active, non-motorised mode of transport as an alternative for individual motor transport. This shift will lead to lowering the demand and consumption of fossil fuels and thus lowering emissions in the transport sector.

According to the ETS 2 impact assessment, vulnerable groups consist primarily of those using private cars to commute without an alternative[26]. The investment is targeted at transport poor users, more granularly at the low and middle-income groups of population in transport poor regions. Low-income citizens may profit from the investment as cycling, as a mode of transport, is relatively cheap (compared to fossil fuelled modes of transport) and, as a non-motorised mode of transport, it is not affected by the impact of the EU ETS2 on fossil fuel prices. It is expected that transport poor regions will benefit from the scheme by providing citizens an alternative to using other modes, mostly private cars. The investment is targeting transport users willing to change use of private cars towards use of bicycle, pedestrian or other forms of non-motorised transport or transport using bicycle paths by electric scooter or electric bicycle.

Implementation & Administration

The main authority for the transport is the Ministry of Transport of the Slovak Republic. The Ministry has experience with the schemes funded by the government. The investment is proposed for self-governing regions, municipalities, and ŽSR.

As presented in the investment details, part of the investment should be dedicated to technical support provided to the eligible institutions for preparing bicycle path projects. This support should be covered centrally and should include preparation of feasibility studies; technical project plans; advice in the route selection; and other support to gain all permits needed for construction. This support will include the work of experts/consultants for the selection of the most needed paths with the highest potential and path tracing to achieve best value for money results and benefits.

26 See figure 3-45 of the Deliverable 2 and summary of impacts in 3.3.4.

Based on the criteria presented in the investment details section, the implementation of the investment would follow the subsequent steps.

- The implementation body or agency will procure an organisation, agency or private organisation (or consortia of suppliers) for preparation of the project documentation, including technical documentation for eligible recipients.
- If the potential recipient requests the support, the implementation body will dedicate part of the contract to the recipient.
- The procured organisation will provide support to the recipient.

Cost estimation

For the investment, the total costs amount to EUR 105 814 834.14 of which EUR 79 361 125.60 are requested under the Fund, and EUR 26 453 1708.54 are covered by the national contribution. The basic assumptions for the calculations (using inputs from the Ministry of Transport and Cyklokoalícia) are as follows:

- Unit price of one km of standard bicycle path: EUR 516 755.42
- Unit price of 1 traffic counter with installation: EUR 9 340
- Unit price of 1 bicycle rack: EUR 141.24
- Unit price of 1 bicycle shelter: EUR 6 043.99
- Average unit price for 1 technical support per recipients including all possible documentation: EUR 18 201.42
- Expected total length of new bicycle paths: 200 km
- Expected number of charging points: 20
- Expected number of traffic counters: 40
- Expected number of bicycle racks: 200
- Expected number of bicycle shelters: 40
- Expected number of technical supports: 100

Gender Considerations

The new bicycling path and routes are alternative for other modes of transport, mostly individual car mobility. The usage of private and public modes of transportation is gendered in Slovakia. Men tend to use private cars to commute and providing available alternative may cause men to be motivated to decrease their use of private cars. Women seem to rely more on public transport and non-motorised transport. Providing better network of bicycling paths may increase availability and attractiveness of cycling mode even more compared to the current status quo.

The full characterisation is presented in Annex B.

Summary

For the analysed M&Is on the transport component, compliance with the criteria set out by DNSH requirements was assessed in the full characterisation, in line with the DNSH technical guidance to the SCF. The following table summarises the different activities under these M&Is, and how they relate to the DNSH assessment.

The DNSH criteria were further considered in the milestones and targets, and relevant ex-ante compliance was included.

Table 4-7 Mapping of transport sector M&Is against DNSH compliant activities

Measure or Investment	DNSH compliant activities
Investment 5. Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Activities T4 (zero-emission vehicles of categories M2, M3, N2, and N3), T14 (individual infrastructure measures for road public transport), and T18 (zero-emission railway, metro, or tramway rolling stock, including its components) of the Annex to the technical guidance
Measure + Investment 6. On-demand transport	Activities T4 (zero-emission vehicles of categories M2, M3, N2, and N3, T7 (deployment and use of intelligent transport systems), and T14 (individual infrastructure measures for road public transport) of the Annex to the technical guidance, as well as urban and suburban transport, road passenger transport as defined in the EU Taxonomy
Measure 7. Provision of discounts on public transport fare for citizens in material deprivation	Activity T8 (demand-driven measures in the form of monthly public transport tickets, shared mobility subscriptions, on-demand transport services) of the Annex to the technical guidance
Investment 8. Investments in railway infrastructure	Activities T23 (individual infrastructure for rail public transport) and T25 (upgrade of linear infrastructure for rail public transport) of the Annex to the technical guidance
Investment 9. Scheme for building bicycle infrastructure	Activity T13 (infrastructure for zero-emission private mobility) of the Annex to the technical guidance

Some of the activities outlined in the table above are not included in the activities and assets covered in the Annex to the DNSH technical guidance to the SCP. Following that same guidance, these activities and assets have undergone further screening, the outcome of which is summarised in the table below.

Table 4-8 Additional DNSH screening of transport measures and investments.

M&I and activity	Question	Justification of the absence of significant harm according to the checklist under subsection 2.2 of the Technical Guidance
Measure + Investment 6. On-demand transport *(urban and suburban transport, road passenger transport)*	*Excluded activities and assets*[27]	No
	Climate change mitigation[28]	The activity fulfils the technical screening criteria laid down in the delegated acts supplementing the Taxonomy Regulation for 'substantial contribution', namely, it provides urban or suburban passenger transport and its direct (tailpipe) CO2 emissions are zero
	Climate change adaptation[29]	The activity or asset has no or an insignificant foreseeable harmful impact on the environmental objective following the guiding principles listed in the Technical Guidance on applying the DNSH principle under the SCF Regulation, and as such is considered compliant with the DNSH principle for this objective
	The sustainable use and protection of water and marine resources[30]	The activity has, by nature, no or an insignificant foreseeable harmful impact on the environmental objective, and as such is considered compliant with the DNSH principle for this objective.
	The transition to a circular economy, including waste prevention and recycling[31]	The activity has measures in place to manage waste, in accordance with the waste hierarchy, both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of

[27] Is the activity or asset in the list of excluded activities and assets of any sector-specific annex?
[28] Is the activity or asset expected to lead to significant GHG emissions?
[29] Is the activity or asset expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?
[30] Is the activity or asset expected to be detrimental: (i) to the good status or the good ecological potential of bodies of water, including surface water and groundwater; or (ii) to the good environmental status of marine waters?
[31] Is the activity or asset expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of nonrecyclable hazardous waste; or (ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of

M&I and activity	Question	Justification of the absence of significant harm according to the checklist under subsection 2.2 of the Technical Guidance
		batteries and electronics (in particular critical raw materials therein).
	Pollution prevention and control[32]	For road vehicles of categories M, the activity complies with external rolling noise requirements for tyres in class A and with Rolling Resistance Coefficient in classes A or B as set out in Regulation (EU) 2020/740 and as can be verified from the European Product Registry for Energy Labelling (EPREL). Vehicles will have zero tailpipe emissions, so they comply with the requirements of the Euro VI heavy duty emission type-approval set out in accordance with Regulation (EC) No 595/2009.
	The protection and restoration of biodiversity and ecosystems[33]	The activity has, by nature, no or an insignificant foreseeable harmful impact on the environmental objective, and as such is considered compliant with the DNSH principle for this objective.

its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?

[32] Is the activity or asset expected to lead to a significant increase in the emissions of pollutants into air, water or land?

[33] Is the activity or asset expected to be: (i) significantly detrimental to the good condition and resilience of ecosystems; or (ii) detrimental to the conservation status of habitats and species, including those of Union interest?

The following table summarises the targets and milestones of the M&Is analysed in the transport component.

Table 4-9 Table containing milestones, targets and timeline for the transport component

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Milestone	1.1.2026: Scheme in force	Putting the scheme into the force.	-	-	-	Q1/2026	The scheme shall be set up administratively and steps be taken for it to enter into force, including compliance with the DNSH requirements set out in activity T4 of the annex to the DNSH technical guidance to the SCP.
Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Milestone	31.12.2026: First procurements are finished, agreements signed.	Related public procurements on vehicles and construction of charging points finished.	-	-	-	Q4/2026	Public procurements shall be undertaken and finished.

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Milestone	31.12.2027: First vehicles delivered and in operation First charging points built.	First vehicles in operation.	-	-	-	Q4/2027	First vehicles delivered and in operation, first charging points built and in operation.
Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Milestone	4Q 2031: all vehicles delivered and charging point built	All vehicles procured and delivered. All charging points built.	-	-	-	Q4/2031	All vehicles procured and delivered. All charging points built.
Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Target	Number of short and long busses, railroad vehicles procured, delivered and in operation. Charging stations for busses built and in operation.	-	Vehicles- short busses Vehicles – long busses Vehicles - railroad Charging points for busses	Number of busses in Slovakia in 2023: 8690. Number of electric buses in operation: 33	Vehicles- short busses: 40 Vehicles – long busses: 40 Charging points: 16.	Q4/2027	Targets are set at the exact number of vehicles and charging points in period of 2027 to 2031.

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
					Number of battery railroad vehicles: 0[34]			
Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Target	Number of short and long busses, railroad vehicles procured, delivered and in operation. Charging stations for busses built and in operation.	-	Vehicles- short busses Vehicles – long busses Vehicles - railroad Charging points for busses	Number of busses in Slovakia in 2023: 8 690. Number of electric buses in operation: 33 Number of battery railroad vehicles: 0[35]	Vehicles- short busses: 95 (cumulative), new 55. Vehicles – long busses: 95 (cumulative), new 55. Charging points: 38 (cumulative), new 22.	Q4/2028	Targets are set at the exact number of vehicles and charging points in period of 2027 to 2031.
Support scheme for buying new zero emission vehicles for public transport and fleet expansion	Target	Number of short and long busses, railroad vehicles procured, delivered and in operation. Charging stations for busses built and in operation.	-	Vehicles- short busses Vehicles – long busses Vehicles - railroad Charging points for busses	Number of busses in Slovakia in 2023: 8 690. Number of electric buses in operation: 33	Vehicles- short busses: 145 (cumulative), new 50. Vehicles – long busses: 145	Q4/2029	Targets are set at the exact number of vehicles and charging points in period of 2027 to 2031.

[34] Currently public procurement for 16 with option for more 20 is ongoing by ZSSK.
[35] Idem.

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
with charging points					Number of battery railroad vehicles: 0[36]	(cumulative), new 50. Charging points: 58 (cumulative), new 20.		
Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Target	Number of short and long busses, railroad vehicles procured, delivered and in operation. Charging stations for busses built and in operation.	-	Vehicles- short busses Vehicles – long busses Vehicles - railroad Charging points for busses	Number of busses in Slovakia in 2023: 8690. Number of electric buses in operation: 33 Number of battery railroad vehicles: 0[37]	Vehicles- short busses: 185 (cumulative), new 40. Vehicles – long busses: 185 (cumulative), new 40. Charging points: 74 (cumulative), new 16. Vehicles – railroad: 3 new (on top of current public procuremen t).	Q4/2030	Targets are set at the exact number of vehicles and charging points in period of 2027 to 2031.

[36] Currently public procurement for 16 with option for more 20 is ongoing by ZSSK.
[37] Idem.

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points	Target	4Q 2031: Number of short and long busses, railroad vehicles procured, delivered and in operation. Charging stations for busses built and in operation.	-	Vehicles- short busses Vehicles – long busses Vehicles - railroad Charging points for busses	Number of busses in Slovakia in 2023: 8 690. Number of electric buses in operation: 33 Number of battery railroad vehicles: 0[38]	Vehicles- short busses: 217 Vehicles – long busses: 217 Charging points: 87 . Vehicles – railroad: 5 cumulative, new 2 (on top of current public procuremen t).	Q4/2031	Targets are set at the exact number of vehicles and charging points in period of 2027 to 2031.
On-demand transport	Milestone	1.1.2026: Scheme for the on-demand transport entry into force 1.1.2027: First lines in service	Putting the scheme into the force.	-	-	-	Q1/2026	Scheme shall be set up administratively and steps be taken for it to enter into force, including compliance with the DNSH requirements set out in activity T4 of the

[38] Currently public procurement for 16 with option for more 20 is ongoing by ZSSK.

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
								annex to the DNSH technical guidance to the SCP.
On-demand transport	Milestone	31.12.2026: Public procurement for vehicles, charging points and dispatching system finished, vehicles delivered, charging points installed.	Related public procurements on vehicles, charging points and dispatching system finished.	-	-	-	Q4/2026	Public procurements shall be undertaken and finished. First vehicles delivered charging points built.
On-demand transport	Milestone	1.1.2027 First on demand transport service launched.	First on-demand service in operation.	-	-	-	Q1/2027	First on demand service in operation.
On-demand transport	Milestone	4Q 2030 On-demand service in operation	All on-demand service in operation.	-	-	-	Q4/2030	All on-demand services in operation.
On-demand transport	Target	Improved mobility for users in poorer regions by introducing on-demand transport		Transport users using on demand transport service.	1 400	10 557	Q4/2028	Target of 10,557 transport users after 2 years of using on-demand transport service.
On-demand transport	Target	Improved mobility for users in poorer		Transport users using	1 400	18 848	Q4/2032	Target of 18,848 transport users

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
		regions by introducing on-demand transport		on demand transport service.				overall using on-demand transport service.
On-demand transport	Target	Improved accessibility of the public transport by introducing new 20 connection lines in transport poor region.	-	Number of on-demand lines/ service in operation.	1 (Currently only 1 known on demand service exists in Trnava self-governing region.)	On demand service in 10 regions (new) OPEX support	Q4/2027	Targets are set at the exact number of on demand services in period of 2027 to 2030.
On-demand transport	Target	Improved accessibility of the public transport by introducing new 20 connection lines in transport poor region.	-	Number of on-demand lines/ service in operation.	1 (Currently only 1 known on demand service exists in Trnava self-governing region.)	On demand service in 15 regions (Cumulative) (new are 5) services) OPEX support	Q4/2028	Targets are set at the exact number of on demand services in period of 2027 to 2030.
On-demand transport	Target	Improved accessibility of the public transport by introducing new 20 connection lines in transport poor region.	-	Number of on-demand lines/ service in operation.	1 (Currently only 1 known on demand service exists in Trnava self-	On demand service in 18 regions (Cumulative) (new are 3) services) OPEX support	Q4/2029	

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
					governing region.)			
On-demand transport	Target	Improved accessibility of the public transport by introducing new 20 connection lines in transport poor region.	-	Number of on-demand lines/ service in operation.	1 (Currently only 1 known on demand service exists in Trnava self-governing region.)	On demand service in 20 regions (cumulative) (new are 2 services) OPEX support	Q4/2030	Targets are set at the exact number of on demand services in period of 2027 to 2030.
On-demand transport	Target	Improved accessibility of the public transport by introducing new 20 connection lines in transport poor region.	-	Number of on-demand lines/ service in operation.	1 (Currently only 1 known on demand service exists in Trnava self-governing region.)	OPEX support for 20 on-demand transport service	Q4/2032	Support for OPEX for on-demand transport lines is up to 2032.
Provision of discounts on public transport fare for citizens in material deprivation	Milestone	1.1.2026 Scheme and entering into force.	Putting the scheme into the force.	-	-	-	Q1/2026	Scheme shall be set up administratively and steps be taken for it to enter into force.
Provision of discounts on public	Milestone	1Q 2026: Discounts being applied across	Discounts being applied.	-	-	-	Q1/2026	Discounts being applied on the

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
transport fare for citizens in material deprivation		all providers of public transport						basis of the scheme.
Provision of discounts on public transport fare for citizens in material deprivation	Target	Affordable transport for citizens in material deprivation. To address 130,239 transport users (overall).	-	Number of passengers affected/addressed.	0 (In 2023 around 192 thousand of citizens was in material deprivation and around 74 thousand were in transport poverty regions (IEP study).)	65,119 (Based on the transport mobility and patterns the goal is to provide affordability of the public transport for the whole group of citizens in material deprivation with emphasise to students in education process.)	Q2/2029	Target is to provide citizens in material deprivation affordable transport service, especially in transport poor regions.
Provision of discounts on public transport fare for citizens in	Target	Affordable transport for citizens in material deprivation. To address 130,239 transport users (overall).	-	Number of passengers affected/addressed.	0 (In 2023 around 192 thousand of citizens was in material	130 239	Q4/2032	Target is to provide citizens in material deprivation affordable transport

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
material deprivation					deprivation and around 74 thousand were in transport poverty regions (IEP study).)			service, especially in transport poor regions.
Investments in railway infrastructure	Milestone	Completion of environmental impact assessment and climate risk assessment	Publication of environmental impact assessment and climate risk assessment	-	-	-	Q4/2029	Environmental and climate risk assessment necessary for compliance with the DNSH principle, including compliance with the DNSH requirements set out in activity T25 of the annex to the DNSH technical guidance to the SCP.
Investments in railway infrastructure	Milestone	31.12.2029: Public procurement is finished, and the contractor is	Public procurements finished.	-	-	-	Q4/2029	Public procurements shall be

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
		selected for the construction phase. The agreement is signed.						undertaken and finished.
Investments in railway infrastructure	Milestone	Q4 2032 The lines are in operation	Reconstruction finished and lines in operation.	-	-	-	Q4/2032	Lines in operation.
Investments in railway infrastructure	Target	Reconstruction of 5 railway lines: 4 dispatching and 1 electrification.	-	Km of railway tracks reconstructed, including electrified ones	0 (ŽSR manages 3 630 km of tracks, 1 585 is electrified (2023).)	54.7 km	Q4/2030	The target is the reconstruction of five railway lines to improve the quality of public transport, including travel time savings. Enhanced service quality is expected to encourage a modal shift to rail and increase passenger numbers. In total, the project involves the reconstruction of five lines,

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
								including 154.7 km of track and 9.8 km of newly electrified lines.
Investments in railway infrastructure	Target	Reconstruction of 5 railway lines: 4 dispatching and 1 electrification.	-	Km of railway tracks reconstructed, including electrified ones	0 (ŽSR manages 3 630 km of tracks, 1 585 is electrified (2023).)	154.7 km	Q4/2032	Target is the reconstruction of 5 railway lines and thus increasing the quality of public transport, including time savings. The better quality of service my lead to shift to rail mode and increase the numbers of passengers. Eventually, 5 new lines/tracks reconstructed including dispatching of 154.7 km of lines and electrification of 9.8 km of lines.

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
Scheme for building bicycle infrastructure	Milestone	1.1.2026 Scheme in force	Putting the scheme into the force.	-	-	-	Q1 2026	Scheme shall be set up administratively and steps be taken for it to enter into force.
Scheme for building bicycle infrastructure	Milestone	31.1.2026 Public procurement for the provider of technical support is finished	Public procurement finished.	-	-	-	Q4 2026	Public procurement shall be undertaken and finished.
Scheme for building bicycle infrastructure	Milestone	31.1.2027 First public procurements building bicycle paths are finished.	Public procurements finished.	-	-	-	Q4 2027	Public procurements shall be undertaken and finished.
Scheme for building bicycle infrastructure	Milestone	31.1.2029 All expected numbers of project documentation/supports have been already prepared and delivered to the eligible recipients.	All planned supports provided	-	-	-	Q4 2029	All planned supports shall be prepared and delivered to the recipients.
Scheme for building bicycle infrastructure	Milestone	31.12.2030 All project finished and in operation. Overall target of 200 km of new bicycle path achieved.	Total length of path achieved.	-	-	-	Q4 2030	Planned length of the new bicycle path built and in operation.

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
Scheme for building bicycle infrastructure	Target			Number of km of new bicycle paths built and Number of supports provided	Overall length of bicycle paths for daily use and commutin g purposes is 1 358.64 km in Slovakia. Providing support is new scheme.	20 km of bicycle path for daily use and commuting. 15 supports provided for eligible institutions.	Q4 2026	Target is the extension of bicycle paths for daily use and commuting in the length of 200 km of new paths. Scheme's target is also providing of 100 supports to self-governing regions, municipalities and ŽSR for preparing feasibility studies, project documentation and technical support.
Scheme for building bicycle infrastructure	Target			Number of km of new bicycle paths built and Number of supports provided	Overall length of bicycle paths for daily use and commutin g purposes is	New 40 km of bicycle path for daily use and commuting (cumulative 60 km). New 35 supports provided for	Q4 2027	Target is the extension of bicycle paths for daily use and commuting in the length of 200 km of new paths. Scheme´s

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
					1 358.64 km in Slovakia. Providing support is new scheme.	eligible institutions (cumulative 50).		target is also providing of 100 supports to self-governing regions, municipalities and ŽSR for preparing feasibility studies, project documentation and technical support.
Scheme for building bicycle infrastructure	Target			Number of km of new bicycle paths built and Number of supports provided	Overall length of bicycle paths for daily use and commutin g purposes is 1 358.64 km in Slovakia. Providing support is new scheme.	New 50 km of bicycle path for daily use and commuting (cumulative 110 km). New 30 supports provided for eligible institutions (cumulative 80).	Q4 2028	The target is the construction of 200 km of new bicycle paths to support daily use and commuting. The scheme also aims to provide 100 grants to self-governing regions, municipalities, and ŽSR for the preparation of feasibility

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets) Unit of measure	Baseline	Goal	Timeline for achievement Quarter Year	Description of each milestone and target
								studies, project documentation, and technical support.
Scheme for building bicycle infrastructure	Target			Number of km of new bicycle paths built and Number of supports provided	Overall length of bicycle paths for daily use and commuting purposes is 1 358.64 km in Slovakia. Providing support is new scheme.	New 50 km of bicycle path for daily use and commuting (cumulative 160 km). New 20 supports provided for eligible institutions (cumulative 100).	Q4 2029	The scheme aims to construct 200 km of new bicycle paths to support daily commuting and regular use. It also targets the provision of 100 support packages to self-governing regions, municipalities, and ŽSR for the development of feasibility studies, project documentation, and technical assistance.
Scheme for building bicycle infrastructure	Target			Number of km of new bicycle paths built and	Overall length of bicycle paths for	New 40 km of bicycle path for daily use and	Q4 2030	The target is to build 200 km of new bicycle paths to

M&Is	Milestone/ Target	Name of milestone/ target	Qualitative indicators (milestones)	Quantitative indicators (targets)			Timeline for achievement Quarter Year	Description of each milestone and target
				Unit of measure	Baseline	Goal		
				Number of supports provided	daily use and commutin g purposes is 1 358.64 km in Slovakia. Providing support is new scheme.	commuting (cumulative 200 km).		promote daily use and commuting. The scheme also aims to provide 100 support packages to self-governing regions, municipalities, and ŽSR for the preparation of feasibility studies, project documentation, and technical support.

Lastly, the table below summarises the timeline of costs for the M&Is analysed under the transport component.

Table 4-10 Estimated total costs of the analysed M&Is of the transport component

8	Relevant time period		Estimated costs for which funding from the Fund is requested							
			Total requested	Split by year						
	From date	To date	Amount (EUR)	2026	2027	2028	2029	2030	2031	2032
Support schemes for buying new zero emission	2027	2031	232 605 000	0	34 880 000	47 960 000	43 600 000	60 905 000	45 260 000	0

vehicles for public transport and fleet expansion with charging points										
On-demand transport	2027	2032	7 900 000	0	2 450 000	1 975 000	1 860 000	1 090 000	375 000	150 000
Provision of discounts on public transport fare for citizens in material deprivation	2026	2032	50 133 020	7 161 860	7 161 860	7 161 860	7 161 860	7 161 860	7 161 860	7 161 860
Investments in railway infrastructure	2026	2032	165 000 000	1 237 500	1 237 500	1 237 500	1 237 500	53 350 000	53 350 000	53 350 000
Scheme for building bicycle infrastructure	2026	2030	105 814 834.14	10 672 490.51	21 435 988.13	26 544 715.64	26 362 701.44	20 798 938.43	0	0
TOTAL			561 452 854.14	19 071 850.51	67 165 348.13	84 879 075.64	80 222 061.44	143 305 798.43	106 146 860	60 661 860

4.2.3. Direct income support

Direct income support measures will not be considered as part of this draft Report.

4.2.4. Costs of the M&Is

The table below summarises the total costs of the M&Is analysed on this report, including a breakdown per origin of the funds, and for the different ETS2 implementation scenarios.

Table 4-11 Summary of the cost of the Fund by source of funding

Total costs of Social Climate Plan	Base case	In case of Article 30k Directive 2003/87/EC
Estimated total costs of the Plan, of which	**EUR 1 789 million**	**EUR 1 714 million**
Covered under the Fund	**EUR 1 342 million**	**EUR 1 285 million**
National contribution	**EUR 447 million**	**EUR 429 million**
Transfers from shared management programmes	N/A	N/A
(Transfers from shared management programmes)	N/A	N/A

4.2.5. Cost methodology

Building Component

Investment: "Family houses renovation" cost methodology

For this investment, we have used a country-specific cost estimate, which assumes a unit cost of EUR 30 000 on average for the renovation of one family house. The renovation costs also include the design documentation and "Design energy assessment". This unit cost assumption is based on data provided by SAŽP from the '*Obnov dom*' scheme. The data were analysed for all applications received under the '*Obnov dom*' calls (9 922 applications). The data from SAŽP were converted to the average floor area of family houses according to the 2021 Census of Population, Dwellings and Houses, converted from the net floor area (2021 Census) to the gross floor area reported in the EPC. For this investment, we assume that 100% of the cost of the investment is funded for each household and micro-enterprise. This assumption is based on experience from '*Obnov dom*' and the capabilities of vulnerable households in Slovakia.

Investment: "Support for apartment buildings renovation" cost methodology

For this investment, we have used a country specific cost estimation, which provides a unit cost of EUR 12 000 per flat. This unit cost assumption is based on the professional experience and input from the Ministry of Transport (from EUR 6 700 per flat for small houses to EUR 14 400 per flat for big houses – taking into account that mostly small houses are not renovated). The size of a standard flat 60 m^2 (net floor area) is assumed based on the Act No. 443/2010 Coll. on Subsidies for Housing Development and on Social Housing. For this investment,

we assume that 100% of the cost of the investment is funded for each household – flat owner. This assumption is based on the capabilities of vulnerable households in Slovakia.

Investment: "Renovation of social housing in apartment buildings and renovation of social services facilities managed by local governments and non-public providers" cost methodology

For this investment, we have used a country-specific cost estimate, which assumes a unit cost of 160 EUR/m^2 of gross floor area reported in the EPC, that is about 211 EUR/m^2 of net useful floor area of flat on average for energy renovation of the social housing building and social service facility. The renovation costs also include the design documentation and "Design energy assessment". This unit cost assumption is based on data provided by SAŽP from the '*Obnov dom'* scheme. For this investment, we assume that 100% of the cost of the investment related to energy costs is funded for each household. For apartment buildings, an average ratio of 1.32[39] between the m^2 of gross floor area of the building and m^2 of the net useful floor area of apartment is assumed. Other costs are assumed to be funded by a standard loan from ŠFRB out of the SCF (rebuilding of existing building to social housing, basic infrastructure, unexpected investments, barrier-free access). This assumption is based on experience from the '*Obnov dom'* scheme and the capabilities of social housing and social service providers and vulnerable households in Slovakia.

Measure: "Advice, professional assistance, capacity building and education" cost methodology

For this measure, we have used a country specific cost estimation, which provides for a unit cost of monthly super gross salary 3 000 EUR/month for technical professionals, 1 800 EUR/month for field social workers, 1 200 EUR/family house for EPC issued before and after renovation and building renovation passport and the number of hours per consultation/client. This unit cost assumption is based on the SAŽP experience from 10 regional offices of SAŽP which are primarily intended for evaluating applications, not the technical advice on renovation and trainings provided for staff. For this measure we assume that 100% of the cost of the measure is funded for each contact/client/training. This assumption is based on the capabilities of vulnerable households and micro-enterprises in Slovakia.

[39] Sternová et al. (2010). Energy perfromance and energy certification of buildings. (available in Slovak).

Transport Component

Investment: "Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points" cost methodology

For this investment, we have used data for unit costs based on the consultation with SEVA (Slovak Electric Vehicle Association), and SK8 (The Association of Self-Governing Regions of Slovakia) (see Annex B Full characterisation of M&Is).

Measure + Investment: "On-demand transport" cost methodology

For this measure + investment we have used the data and unit costs based on the consultation with SK8 (The Association of Self-Governing Regions of Slovakia) (see Annex B full characterisation of M&Is).

Investment: "Provision of discounts on public transport fare for citizens in material deprivation" cost methodology

For this investment we have used data from the Institute of Environmental Policy study on the transport poverty[40].

Investment: "Investments in railway infrastructure" cost methodology

For this study, the data and timetables were provided by the Ministry of Transport of the Slovak Republic.

Investment: "Scheme for building bicycle infrastructure"

For this investment we have used data for unit costs provided by the Ministry of Transport of the Slovak Republic and data based on the consultation with the "Cyklokoalícia" NGO (see Annex B Full characterisation of M&Is).

4.3. Overall projected impacts

The following tables provide the qualitative and quantitative estimate of the impacts of the SCP overall and per component. It does this by aggregating the impacts of the individual M&Is. One limitation of this table is that there is an implicit assumption that each household or transport user benefits from only one M&Is. However, in reality it may be the case that a household or transport user benefits from more than one M&Is in the SCP. If this is the case then the total reduction in vulnerable households and transport users will be lower than estimated. For a description of the methodology used in the estimates, refer back to Chapter 3.3.

Table 4-12 Impacts of the overall plan

Overall plan	Qualitative expected impacts	Quantification of the impact (if available)
Energy efficiency	Change of heating systems and RES implementation is included in deep renovation of buildings	1129.6 GWh annual energy savings from 2032; 9802 total GWh saved during SCP period 2026-2032

[40] Ministry of Environment of the Slovak Republic. (2025). I don't have a car, I don't have a bus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html. (available in Slovak).

Overall plan	Qualitative expected impacts	Quantification of the impact (if available)
Building renovation	For all building renovation actions, the long-lasting M&Is focus on the worst-performing buildings (defined in national buildings renovation plan under EPBD Art. 3 and 9). The aim of renovation is a deep renovation (EPBD definition – NZEB/ZEB) in a step-by-step approach (defined in the EPBD as a staged deep renovation), with focus on the first two steps recommended by a Building Renovation Passport. This will ensure the principle of "energy efficiency first" and subsequently, if necessary, the next renovation steps are the replacement of heating systems, RES and control systems installation. This means at least the envelope insulation and windows change to the level of NZEB is the minimum renovation action.	7 063 880 m2 renovated
Zero- and low-emission mobility and transport	• Scheme for purchase zero emission vehicles for the public transport (Beneficiaries: ZSSK, self-governing regions, municipalities, providers of public transport) • Within the On-demand transport M&Is support for 40 new electric microbuses (Beneficiaries: self-governing regions, municipalities, NGOs with transport licence according to Slovak law, providers of public transport) • By the investment on Railroad infrastructure, the quality of the tracks will be improved for the passengers.(Beneficiary: ŽSR) • The investment in building bicycle path will provide funding for 200 km of new	0 EVs - passenger; 0 EVs LDV - Passenger; 0 Charging poles (public and private); 0 Bicycles; 38.7 million Public transport passenger km; 200 km of bicycle paths

Overall plan	Qualitative expected impacts	Quantification of the impact (if available)
	paths and support for the preparing the project documentation for 100 recipients.	
Greenhouse gas emission reductions	• New busses with electric drivetrain and battery railroad vehicles will be procured and purchased. • New electric minibuses will be procured and purchased for the on-demand transport service. • Electrification of 9.8 km of railway track. • 200 km of new bicycle path will be an alternative for using private car • Deep renovation or envelope improvement to NZEB of worst performing buildings (family houses, apartment buildings, social housing, social service facilities) will significantly decrease greenhouse gas emission	111.7 ktCO2e annual emissions reductions from 2032; 1195 ktCO2e total emissions reductions during SCP period 2026-2032
Reduction in the number of vulnerable households and vulnerable transport users (unit: households)	• By providing discounts on fares for citizens in material deprivation up to 190 thousand people may be affected. • On-demand transport service will affect citizens mostly in remote, sparsely populated areas. • New bicycle paths will provide alternative for not using private car for commuting and daily use/travelling mostly up to 5 km. It is expected that 8 000 citizens will affected, from which 4000 may be new users. • Deep renovation or envelope improvement to NZEB of worst performing buildings (family houses, apartment buildings, social housing, social service	Thousands vulnerable households: • if max overlap: 41.3 – 57 • if min overlap: 78.6 Thousands vulnerable transport users: • if max overlap: 41.7- 104.1 • if min overlap: 66.2- 140.2

Overall plan	Qualitative expected impacts	Quantification of the impact (if available)
	facilities) will significantly decrease the fossil fuel used and energy costs and decrease the number of vulnerable households.	

Table 4-13 Impacts of the building component

Buildings component	Qualitative expected impacts	Quantification of the impact (if available)
Energy efficiency	Change of heating systems and RES implementation is included in deep renovation of buildings. Separate M&Is for heating systems replacement and RES installation is not proposed, because the focus in on renovation of worst performing buildings.	1 115.7 GWh annual energy savings from 2032; 5 578 total GWh saved during SCP period 2026-2032
Building renovation	At least envelope insulation and windows change for: • 20 000 family houses • 2 362 500 m^2 of gross floor area of social housing and social services facilities • 11 600 flats own by vulnerable households in multi-apartment buildings (about 464 bigger multiapartment buildings) will be renovated with vulnerable and not vulnerable households)	7 063 880 m2 renovated
Zero- and low-emission mobility and transport		
Greenhouse gas emission reductions	• Deep renovation or envelope improvement to NZEB of worst performing buildings (family houses, apartment buildings, social housing, social service facilities) will significantly decrease fossil fuel use and greenhouse gas emission.	106.4 ktCO2e annual emissions reductions from 2032; 532 ktCO2e total emissions reductions during SCP period 2026-2032
Reduction in the number of vulnerable households and vulnerable transport users	• Deep renovation or envelope improvement to NZEB of worst performing buildings (family houses, apartment buildings, social housing, social service facilities) will significantly decrease the energy costs and decrease the number of vulnerable households.	Thousands vulnerable households: • if max overlap: 41.3 – 57 • if min overlap: 78.6

Table 4-14 Impact of the transport component

Transport component	Qualitative expected impacts	Quantification of the impact (if available)
Energy efficiency	434 new zero emission busses in operation 5 new battery railroad vehicles 1 line of railway track electrified (9.8 km) 4 lines with new dispatching system (154.7 km) 40 electric minibuses for on demand transport	13.9 GWh annual energy savings from 2032; 4 224 total GWh saved during SCP period 2026-2032
Building renovation		
Zero- and low-emission mobility and transport	434 new zero emission busses in operation 5 new battery railroad vehicles 1 line of railway track electrified (9.8 km) 4 lines with new dispatching system (154.7 km) 40 electric minibuses for on demand transport 200 km of new bicycle paths	0 EVs - passenger; 0 EVs LDV - Passenger; 0 Charging poles (public and private); 0 Bicycles; 38.7 million Public transport passenger km
Greenhouse gas emission reductions	According to the points above.	5.3 ktCO2e annual emissions reductions from 2032; 663 ktCO2e total emissions reductions during SCP period 2026-2032
Reduction in the number of vulnerable households and vulnerable transport users	By the discount on fares for citizens in material derivation 192 000 in general and 74 000 in transport poor region people may be affected. By on-demand transport from 75 623 to 303 273 vulnerable citizens may be affected. 8000 citizens are expected to be affected by the construction of the new bicycle paths, from which 4000 may be new users.	Thousands vulnerable transport users: • if max overlap: 41.7- 104.1 • if min overlap: 66.2- 140.2

4.3.1. Quantitative impacts of the Plan

The table below provides estimates of the quantified impact of the plan.

Table 4-15 Impact of the Plan - Number of households, users or ktCO2 difference from policy neutral baseline

	GHG emissions ($ktCO_2$ annual emissions reductions)

	Short-term (3 years ahead)	Medium-term (end of the plan)
Total (buildings and transport)	147.50	246.70
Buildings component	63.80	106.40
Transport component	83.70	140.30

		Poverty and vulnerability (thousands)						
	Beneficiaries	Significantly affected Hhs	Hhs in energy poverty	Vulnerable households	Significantly affected transport users (Hhs)	Hhs in transport poverty	Vulnerable transport users	Vulnerable microenterprises
Total (buildings and transport)	**218.8**	41.3 - 54.1	41.3 - 57		41.7 - 104.1	24.6 - 52.2		0.0
Buildings component	**78.6**	41.3 - 54.1	41.3 - 57	- if max overlap: 41.3- 57 - if min overlap: 78.6				
Transport component	**140.2**				41.7 - 104.1	24.6 - 52.2	- if max overlap: 41.7- 104.1 - if min overlap: 66.2- 140.2	

The GHG savings presented in **Chyba! Nenašiel sa žiaden zdroj odkazov.** have been estimated based on the expected impacts of each M&I included in the plan according to the methodology described in Annex C.

The energy and transport poverty and vulnerability impacts have been estimated according to the following approach:

- the total number of beneficiaries (households or transport users) is estimated based on the budget and unitary cost of each measure or investment.
- The number of beneficiaries which are energy/transport poor or are significantly affected by ETS2 is estimated based on a set of assumptions (ranges) which vary with the measure or investment. These assumptions are presented in a separate methodological note.
- The number of beneficiaries that are energy/transport poor, or are significantly affected by ETS2 and that were lifted out of the condition after the measure or investment is also estimated based on a set of assumptions (ranges) which vary with the measure or investment. These assumptions are presented in a separate methodological note.

- The total number of vulnerable households is estimated by adding up the two previous ranges. However, there may be significant overlap between the two target groups (significantly affected by ETS2 and energy/transport poor), or no overlap at all. For this reason, the change in the number of vulnerable households/transport users is provided as two ranges:
    - The range for *max overlap* describes a case in which there is significant overlap between the two groups, and therefore the total change in the number of vulnerable households/transport users due to the M&Is will be lower;
    - The range for *min overlap* describes a case in which there is minimum overlap between the two groups and therefore the total change in the number of vulnerable households/transport users due to the M&Is will be higher.

Estimating the overlap between the two groups is complex. It varies by country, by measure or investment, and by the chosen administrative identification rules. For example, we expect high overlap for energy poverty and vulnerability to ETS2 in countries with a high proportion of fossil heating, and low overlap in countries with a low proportion of fossil heating. For transport vulnerability, we expect high overlap in countries where lower income deciles show high car ownership rates, and live in areas poorly served by public transport, such as rural areas. Overall, we expect medium-to high overlap for energy vulnerability, and lot to medium overlap for transport. At this point in time, it is not possible to be more precise than the ranges provided.

The assumptions used will presented in a separate note.

4.3.2. Impacts from direct income support

Direct income support will not be considered as part of this draft report.

5. Considerations at plan level

5.1. Effective Implementation and monitoring

Building component

Investment: "Family houses renovation"

For this investment, SAŽP will be in charge of implementing, measuring and reporting. This authority is implementing *'Obnov dom'* scheme and has administrative structure and experience from monitoring and implementation.

Relevant indicators for indicative milestones and targets for this investment is the number of family houses having undergone renovation.

This investment will contribute to the following common indicators, which should be reported:

- increase the number of buildings/floor area of buildings having undergone deep renovation or other energy renovation;
- reduction of number of households in energy poverty;
- reduction in greenhouse gas emissions;
- savings in annual primary and final energy consumption, confirmed for individual family houses by EPC before and after renovation.

Investment: "Support for apartment buildings renovation"

For this investment, ŠFRB will be in charge of implementing, measuring and reporting. ŠFRB has the administrative structure and experience in providing loans and partly grants to apartment building with private ownership of flats. The subsidies from ŠFRB are provided by the Ministry of Transport. Potentially, subsidies from other funds (e.g. EU structural funds from Programme Slovakia) can be involved.

The relevant indicator for indicative milestones and targets for this investment is the number of supported vulnerable households – flat owners living in not renovated apartment buildings which undergone renovation.

This investment will contribute to the following indicators, which should be reported:

- increase the number of buildings/floor area of apartment buildings having undergone renovation,
- reduction of number of households in energy poverty,
- reduction in greenhouse gas emissions,
- savings in annual primary and final energy consumption, confirmed for individual buildings by EPC before and after renovation.

Investment: "Renovation of social housing in apartment buildings and renovation of social services facilities managed by local governments and non-public providers"

For this investment, ŠFRB will be in charge of implementing, measuring and reporting.

The Ministry of Transport directly supports municipalities in financing rental housing development through the Programme of Housing Development. In this scheme it is possible for municipalities to combine state subsidy with the long-term low interest loan from ŠFRB. The subsidies are provided by the Ministry of Transport according to the Act No. 443/2010 Coll. on Subsidies for Housing Development and on Social Housing as amended.

The relevant indicator for indicative milestones and targets for this investment is the gross floor area in m2 of buildings having undergone renovation. The floor area

can be recalculated to the number of flats based on standard size of flat supported by subsidies according to legislation (Act No. 443/2010 Coll.).

This investment will contribute to the following indicators, which should be reported:

- increase the number of buildings/floor area of buildings having undergone deep renovation or other energy renovation,
- reduction of number of households in energy poverty,
- reduction in greenhouse gas emissions,
- savings in annual primary and final energy consumption, confirmed for individual buildings by EPC before and after renovation.

Measure: "Advice, professional assistance, capacity building and education"

For this measure, the Ministry of Economy of the Slovak Republic is considered to be the implementing organisation at this stage in charge of implementing, measuring and reporting in cooperation with SAŽP and the Ministry of Labour, Social Affairs and Family (field social workers). Cooperation will be needed between the Ministry of Transport (EPBD implementation) and the Ministry of Economy (EED implementation) which are both responsible for the establishment of OSSs.

The regional offices of SAŽP are primarily intended for evaluating applications, not the technical advice on renovation. The advice on applications could be carried out by SAŽP employees from 10 regional offices.

Existing capacities of the well-functioning programs could be utilised. It is recommended to coordinate these efforts and trainings also with the regional centres under the Ministry for investments and regional development, the Development Teams of the Plenipotentiary for Roma Communities, SIEA's regional offices, and other relevant bodies. Training should primarily relate to specific calls, so those related to the renovation of family houses should be directed by SAŽP.

The relevant indicator for indicative milestones and targets for this measure is the number of advised vulnerable households in family houses, in social housing and social service facilities via social housing entities and flat owners' associations and micro-enterprises (e.g. the number of contacts).

This measure will increase a renovation rate and quality of renovation and will contribute to the following indicators:

- the number of buildings and the corresponding floor area being renovated with the support of M&Is after advice and assistance;
- the reduction of number of households in energy poverty;
- the reduction in greenhouse gas emissions;
- savings in annual primary and final energy consumption, confirmed for individual family houses by EPC before and after renovation.

Transport component

The main authority for public transport is the Ministry of Transport and its organisation National Transport Authority (NADA). Public transport in Slovakia is provided by government (through the Ministry of Transport and by ordering to railroad company – ZSSK), by self-governing regions (by ordering private or public companies based on the public procurement), and by municipalities (by ordering based on public procurement of private or public companies or by ordering through own municipality company).

The Ministry of Transport and NADA will be the implementing bodies of all the proposed transport M&Is. Self-governing regions and municipalities will provide regional and local data for reporting purposes. The providers of the service – public or private companies, ZSSK – will benefit from the M&Is and provide the data for further reporting.

The 'On demand transport' measure + investment is proposed for and will be implemented by self-governing regions, municipalities and public or private companies providing a public transport (based on the public procurement and order of the self-governing region or municipality). In addition, NGOs offering social services may apply for the scheme if they meet the requirement of Act No. 332/2023 Coll. on public transport. For the measure + investment of 'On demand transport', NGOs can measure and provide data.

The Slovak Railway Company (ŽSR) and the Ministry of Transport will be responsible for the implementing, measuring and reporting of the investment 'Investments in the railroad infrastructure' as the full competence and subsequent operation lies within these two entities.

'Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points': The investment is proposed for self-governing regions, municipalities, ZSSK and for public or private companies providing a public transport (based on the public procurement and order of the self-governing region or municipality).

The measure 'Provision of discounts on public transport fare for citizens in material deprivation' is proposed for self-governing regions and municipalities and providers of the public transport based on agreement in the public interest. The administrative identification of citizens in material deprivation should be done by the regional offices of the Office of Labour, Social Affairs and Family as individuals or households belonging to the threshold of material deprivation (set by the "minimum standard of living") and entitled to receive this social benefit are registered at the local level of this Office. Reduced fare or discounts would be provided by the public transport providers and subsequently will be compensated by the ordering institution and funded by the SCF.

The investment "Scheme for building bicycle infrastructure" is proposed for self-governing regions, municipalities and ŽSR. The Ministry of Transport will be implementing body: responsible for the implementing, measuring and reporting of the investment.

5.2. Consistency and complementarity with other initiatives

5.2.1. With existing national initiatives

All selected M&Is for the buildings component are consistent with the overall national policy framework and the revised EPBD and EED implementation. Family houses and remaining non-renovated apartment buildings renovation is a priority in NECP. Renovation of the worst-performing residential buildings will contribute to obligations following from the EPBD implementation. According to EPBD Art. 3 and 9, by 29 May 2026, MS shall establish a national trajectory for the gradual renovation of the residential building stock in line with the targets for 2030, 2040 and 2050 set out in the national building renovation plan.

Completion of one-stop-shops (OSS), with tailored advice to vulnerable households, is in line with the revised EPBD implementation of the Art. 18 and EED Art. 22(6). The provision of energy certificates and Building Renovation Passports for free is in line with the revised EPBD Art. 12 and 19 as MS shall take measures to ensure that renovation passports and energy performance certificates are affordable and shall consider whether to provide financial support to vulnerable households wishing to renovate their buildings.

The transport component measure 'Provision of discounts on public transport fare for citizens in material deprivation' is complementary to other forms of providing discounts in Slovakia at the central or regional level. However, these are not dedicated specifically to the citizens in material deprivation. In general, existing discounts are provided for children, pupils, students, pensioners, and citizens with disabilities. The scheme for the travel expenses reimbursement for the kindergartens and primary school students is also in place under the Ministry of Education, Research, Development and Youth.

5.2.2. With EU funding and programmes

Buildings component

Complementarity is ensured by linking M&Is to existing schemes, relevant national plans and funds, in particular the following.

- The *'Obnov dom mini'* scheme, which is financed from the RRP (chapter REPoweEU) in the time horizon until the end of 2025. Afterwards, the financing will continue from the Modernisation Fund. The complementarity to the investment on Family house renovation is ensured by the extension in time, higher ambition level and the provision of 100% grants to vulnerable groups. Further financing will also extend the target group to vulnerable

households and vulnerable micro-enterprises and the worst-performing residential buildings (EPBD Art.3 and 9).

- The existing ŠFRB subsidy scheme provides loans for renovation of apartment buildings and social housing and social services facilities. However, ŠFRB does not provide grants except of a partial remission of the principal of the loan after meeting the requirements for higher energy savings. The complementarity with the ŠFRB scheme is the combination of loans with grants (e.g. up to 100% for energy renovation part and loan for other renovation) that is more suitable for vulnerable groups.

The Recovery and Resilience Plan:
Component 2: Building renovation

- Investment 1: Improving the energy efficiency of family houses;
- Investment 2: Renovation of public historic and listed buildings.

Component 19: RePowerEU also focuses on the renovation and management of buildings

- Investment 2: Improving the energy efficiency and effectiveness of government buildings;
- Investment 3: Renovation of public historic and listed buildings;
- Investment 4: Supporting the renovation of households at risk of energy poverty.

Although social service facilities owned and managed by non-public social service providers are not public buildings (i.e. not owned by the state or local government), they are used for public benefit purposes.

Programme Slovakia
Priority: 2P1. Energy efficiency and decarbonisation

Specific objective RSO2.1 Supporting energy efficiency and reducing greenhouse gas emissions will be achieved through the following measures:

- 2.1.1. Improving energy efficiency in enterprises
- 2.1.2. Reducing the energy performance of buildings/supporting the renovation of public and residential buildings
- 2.1.3. Support for the development of regional and local energy

The support mechanism excluded social service facility buildings owned and managed by non-public social service providers. These buildings are not public buildings.

Priority: 4P5. Active inclusion and accessible services

Specific objective RSO 4.3 Supporting the socio-economic inclusion of marginalised communities, low-income households and disadvantaged groups,

including people with special needs, through integrated actions including housing and social services:

- completion of community centres and improvement of their facilities;
- ensuring available and accessible infrastructure for the needs of social crisis intervention services, including their equipment;
- building/establishing comprehensive assistance homes for children experiencing violence.

Measures under priority 4P5 are implemented through the integrated territorial investment mechanism, with the use of funds decided by the Partnership Councils (self-governing regions) and Cooperation Councils (municipalities), which makes it very difficult for non-public providers of social services to obtain any contribution.

From the above it follows that the renovation of SKKI owned or managed by the non-public providers of social services has fallen out of all support mechanisms aimed at buildings renovation and the implementation of measures aimed at increasing the energy efficiency of buildings.

Transport component

The support for purchasing battery railroad vehicles of the investment 'Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points' is partially complementary to the EU funding (RRP – component Sustainable transport and chapter REPowerEU) of the ZSSK ongoing public procurement on the new battery railroad vehicles. It is envisaged to procure 16 vehicles, with the option for an additional 20 vehicles. Moreover, in Programme Slovakia, through measure "2.8.1 Support for the development of sustainable mobility outside Bratislava self-governing region", it is possible to obtain funding for the renewal of vehicles for public transport (alternatively powered buses including the related charging and recharging infrastructure). The proposed scheme under SCF is targeting only EV buses and trains and related charging infrastructure for busses compared to the scheme funded by the EU.

The investment 'Investments in railway infrastructure' is complementary to the EU funding[41] (Programme Slovakia – component Connected Slovakia, RRP – component Sustainable transport and chapter REPowerEU, CEF). However, the selected lines/tracks of this investment have not been chosen to be financed from the mentioned funds. The state budget is the primary source of funding for the reconstruction and modernisation of the railway infrastructure.

The investment "Scheme for building bicycle infrastructure" is complementary to the EU funding. From previous EU programmes (Integrated regional programme and INTERREG) a total amount of EUR 120 million was spent. 76 projects were supported from the Resilience and Recovery Plan in the amount of approximately

[41] ŽSR (2024). Projekty v realizácii a plánované projekty. https://www.zsr.sk/pre-media/vyjadrenie-media/2024/december/.

EUR 74 million (the total allocation is EUR 102 million). Also, the call from the budget of the Ministry of Transport in 2021 and a call for schools were allocated in the amount of EUR 13.8 million. Recovery and Resilience Plan lasts until Q2 of the year 2026. Via Programme Slovakia, the call from the measure 2.8.2 was opened in 2024 with the allocation of EUR 84 million. The Programme Slovakia will conclude in 2027.

Beyond the information provided in this sub-chapter, we would invite you to look for details in Annex B (full characterisation of the M&Is analysed).

6. Recommendations

General recommendations for the buildings component are as follows.

- The M&Is proposed should be implemented using existing well-functioning schemes as a basis, where possible. Administrative organisation, implementation expertise and staff of existing schemes should be deployed for new M&Is. Examples of existing schemes are ŠFRB apartment renovation scheme; or SAŽP scheme "Obnov dom", including using the regional offices of the SAŽP to provide support for applicants and education activities in social sector.
- For the proper implementation of the SCF, formal adoption of legislative changes resulting from the EPBD and EED transposition into the national legislative framework is necessary. This includes new indicators required by the Energy Performance of Buildings Directive to be reported in the EPC. For instance, final energy consumption will need to be included in the EPCs which provides a more direct link to energy costs than primary energy.
- Effective design of Building Renovation Passports will be essential for identification of correct order and ambition level for renovation steps in case of staged deep renovation. Building renovation passports should avoid the unnecessary change of heating systems in case the existing systems have sufficient remaining lifespan. This will enable to effectively used financing from SCF to renovate more buildings. Building Renovation Passports should ensure that each renovation step financed from SCF will pave the way to future EU targets for building stock (NZEB or ZEB).
- Guidance documents should be developed to keep the quality and decrease the costs of Building Renovation Passports (e.g. provide typical solutions). This could be especially suitable for family houses and apartment buildings connected to district heating.
- The OSS premises are necessary to be established as the place where the advice to vulnerable groups will be organised and provided. The rules and guidelines of the SCF should be considered when designing the

implementation of these elements required by the EPBD (Ministry of Transport) and EED (Ministry of Economy).

- Implementing authorities should define a specific methodology for checking whether the predicted cost savings after renovation are realised as the existing Energy Performance Assessment methodology is not fully suitable for this calculation. The following indicators are needed to estimate actual cost savings: final energy; delivered energy per energy carrier; and consumption adjusted based on actual climate data, potentially including the comparison with real measured energy consumption. Involvement of relevant technical experts will be needed for methodologies or guidelines preparation for accredited energy assessors for energy cost savings prediction and confirmation after renovation.
- The creation of a commission for the Social Climate Plan, which could operate in synergy, or rather under the Monitoring Committee for Operational Programme Slovakia. High-quality cooperation with socio-economic partners and joint monitoring structures have the potential to improve programming, but also synergies and complementarities of individual funds.
- Inter-institutional cooperation will be needed between several ministries and agencies. This should be present from the very beginning, i.e. already during the preparation of first calls for funding. NIKA, the central implementing authority of the SCF, should actively promote inter-institutional cooperation via regular processes, and ensure that these are in place well ahead of the implementing period. Project teams for the preparation of respective schemes should be established after the SCF approval. Good cooperation and coordination between different ministries and agencies are crucial for these two M&Is in particular:
- **Renovation of social housing in apartment buildings and renovation of social services facilities managed by local authorities and non-public providers**: For this investment, it is necessary to distinguish between "social housing" and „social service facilities“. Social housing is entirely within the competence of the Ministry of Transport of the Slovak Republic (as the ministry responsible for buildings and the implementation of the EPBD) and consists of the public rental sector. Social service facilities are a wide range of types of facilities – dormitories, shelters, halfway houses, facilities for seniors, etc. – under the jurisdiction of the Ministry of Labour, Social Affairs and Family and Ministry of Health of the Slovak Republic.
- **Advice, professional assistance, capacity building and education**: This measure is multisectoral. The Ministry of Economy of the Slovak Republic is considered to be the implementing organisation at this stage. Cooperation will be needed between the Ministry of Transport (responsible for the EPBD implementation) and the Ministry of Economy (responsible for the EED implementation). The Ministry of Labour, Social Affairs and Family must be

involved to increase the competence of social field workers as the first contact for advice. Training should primarily relate to specific calls, so those related to the renovation of family houses could be directed by SAŽP other trainings should be organised in cooperation with SIEA. The involvement of technical experts, accredited experts for energy certification and professional organisations such as the Slovak Chamber of Civil Engineers (SKSI) is essential in educational and training activities and in the preparation of methodologies.

General recommendations for the transport component are as follows.

- Project teams for the preparation of the respective schemes need to be established immediately after the SCP approval. Each project team should be composed of staff members who have already participated in the preparation of similar schemes in the past. This team should continue in the implementation phase of each M&Is.
- Simultaneously, teams for the realisation of public procurement and for the development of project documentation need to be established. The teams should be composed of experts in public procurement and preparation of project documentation from current experienced members of existing teams and new members specializing in specific problem areas.
- Regional authorities need to be part of preparation and implementation teams as M&Is are also focused on the regional level. It is essential that representatives of local authorities and local governments are involved in the development of schemes from the very beginning, during the preparation and design of the schemes. This will prevent challenges during implementation and ensure that the goals and milestones are achieved.
- Regional campaigns (in Slovak and minority languages) regarding on-demand transport need to be undertaken. These campaigns should be undertaken by institutions who carry out public transport services – self-governing regions and municipalities. It should be targeted for specific regions.
- Cooperation of governmental entities at central and regional levels should ensure timely delivery of underlying permitting and other administrative procedures, such as the EIA process or building permits. For the successful implementation of the objectives and milestones of the M&Is, it is necessary to ensure that local and central government authorities cooperate and coordinate their activities towards the implementation of the SCF. This recommendation follows from the experience of preparing other schemes and implementing other programmes, where the quality of administrative staff plays an essential role for successful implementation of programmes.
- Special attention should be paid to public procurement process to ensure fairness and quality. This recommendation is based on the experiences and the current situation in the public procurement process. Public

procurement often involves extensions, frequent objections and even decisions by the Public Procurement Office – the process is lengthy and complicated. Properly and well-organised competition can eliminate such problems.

Annex A – Summary of stakeholder consultation activities

At the end of 2024 (23 December), the national long-list of M&Is was provided to NIKA and subsequently shared with the members of the SCP Working Group for feedback. As a result, the SCP Country Team received written feedback from Institute of Environmental Policy, Institute for Financial Policy and Slovak Ministries of Transport, Environment and Labour, Social Affairs and Family at the beginning of January 2025.

Further feedback on national long-list of M&Is was obtained during online meetings with:

- The Institute of Environmental Policy (Transport) on 21 January;
- BPB and Slovak Climate Initiative – NGOs (Buildings) on 23 January;
- The Union of Slovak Cities - local authorities (Transport) on 24 January;
- The Union of Slovak Cities - local authorities and NGOs - Priatelia Zeme-CEPA Climate Coalition, Cyclo-coalition, Friedrich-Ebert-Stiftung, ETP Slovensko, Institute 2050, Slovak Catholic Charity (Buildings) on 24 January;
- The Ministry of Transport (Buildings) on 28 January;
- NADA and Cyclo-coalition – NGO (Transport) on 30 January;
- Institute 2050 – NGO (Transport) on 31 January;
- The Slovak Paralympic Committee (Transport) on 4 February;
- SK8 – association of regional authorities (Transport) on 6 February;
- The DEDO Foundation - NGO (Buildings) on 7 February;
- The Bratislava self-government region (Buildings) on 11 February;
- SK8 – association of regional authorities (Buildings) on 13 February;
- The Ministry of Environment and Slovak Environmental Agency (Buildings) on 14 February; and
- Various stakeholders during the Validation Workshop on 19 February.

Moreover, the TSI Country Team received written or oral feedback on proposed M&Is from other stakeholders, such as ZMOS, representing Slovak municipalities, Ministry of Economy, Institute of Social Policy by the Ministry of Labour, Social Affairs and Family, Institute for Financial Policy at Ministry of Finance or SEVA, Slovak Electric Vehicle Association.

After the D2 Validation Workshop, NIKA consulted relevant ministries on their priorities. Subsequently, a decisive meeting with representatives of NIKA, ministries on Economy, Environment and Transport and TSI Country Team was held on 13 March, 2025 regarding the selection of the most suitable M&Is for full characterisation. As a result, the TSI Country Team prepared and delivered (on 14 March, 2025) to the BA a short-list of eight M&Is and some additional M&Is whose

eligibility was questionable. Later on, the TSI Country Team intensively consulted concerned ministries, regional authorities, TSI Expert Team and relevant stakeholders for the preparation of the tables on full characterisation of selected M&Is and eligibility of additionally submitted M&Is. Finally, detailed information on eight shortlisted M&Is was publicly presented during the DLV3 workshop held on 30 April, 2025. After the discussion during this workshop, the BA requested the TSI National Team to analyse also the measure on building the bicycle infrastructure which was already part of the national long-list of M&Is. Therefore, the final list of the proposed M&Is was expanded to nine.

Annex B - Full characterisation of selected M&Is

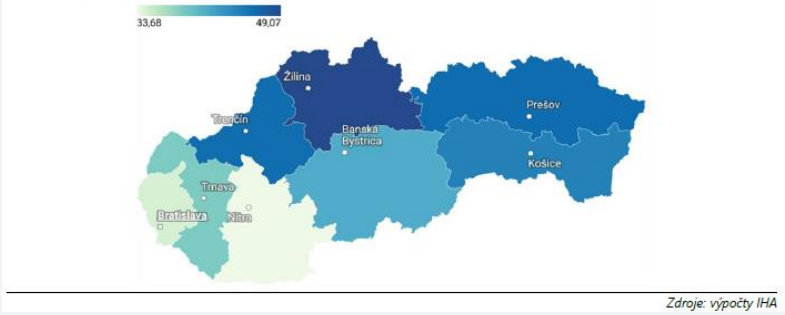
Tables with full characterisation of shortlisted M&Is.

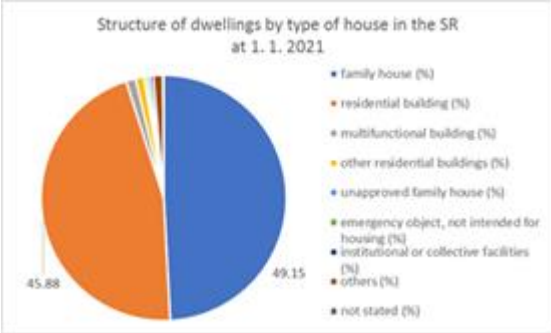
Table 0-1 Investment 1: Family houses renovation

	Element	Description
1	General description of the M&Is A detailed description of M&Is based on desk research and information gathered from stakeholders	
1.a	The nature, size and type of the M&Is- including if it is new or existing	**Nature**: This investment targets the improvement of energy performance of family houses occupied by vulnerable households and micro-enterprises. The goal is conducting deep renovations also as a staged, step-by-step deep renovation to significantly enhance the energy performance of buildings, typically two renovation interventions per vulnerable household, improvement of envelope as the first two steps (thermal insulation of walls, roof, floor and change of windows) and the replacement of heating systems and RES and control systems implementation as a third steps only if necessary. The existing scheme Green Solidarity (SIEA), can support the installation of systems based on renewable energy sources in renovated family houses, if it is in line with the Renovation passport. The qualitative improvement of the national project Green Solidarity will be achieved by expanding the list of supported devices to include heat pumps and energy storage systems. In addition, households will be able to apply for support for the installation of photovoltaic panels, solar collectors and biomass boilers. The focus is on the worst-performing buildings (defined in EPBD Art. 3, and 9). The goal of the renovation itself should be the deep renovation, but if reasonable also in step-by-step approach proofed by mandatory building renovation passport (BRP) in order to avoid the risk of lock-in effect and hygienic defects (moulds). **Type**: Building renovation **New or existing**: This investment is an extension of existing support scheme for partial renovation of family houses "Obnov dom mini". Currently, the scheme "Obnov dom mini" is planned to support the partial renovation of 4 500 family houses from the funds of the Recovery and Resilience Plan (POO, chapter REPowerEU) until the end of 2025. Currently, eligible applicants are households whose net income per member for 2023 did not

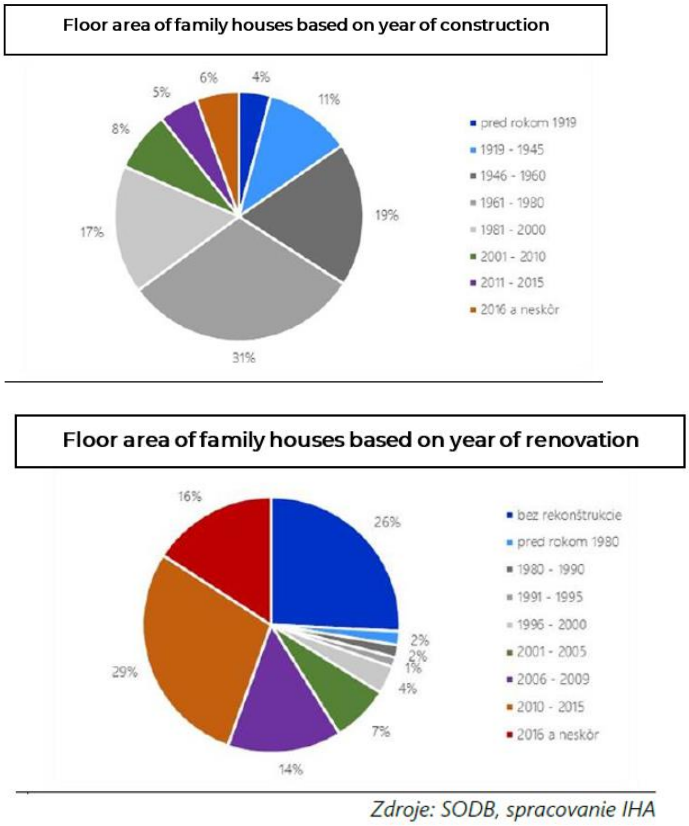
	Element	Description
		exceed EUR 8 165.30. The allocation for the scheme is EUR 40 million + VAT and since it is a partial renovation, the maximum contribution is EUR 10 000 per application. After the end of the POO scheme, financing will continue from the Modernisation Fund up to the amount of EUR 186.34 million, while at least 16 940 applications should be supported. The time frame for implementing the Modernisation Fund scheme is planned from 2026 (or after the allocation from the POO is exhausted) until the available allocation is exhausted. The additionality should be ensured and overlap avoided. The extension includes: • Time extension after expiry of scheme under MoF. After the renovation of approximately 20 000 single-family homes from POO and MoF, we estimate that the potential absorption capacity from SCF could be at the level of another 20 000 households. • Currently, the amount of support mentioned is EUR 10 000, if the SCF focus on deep renovation, this limit should be increased to EUR 30 000 per household • The introduction of complementary support by higher grant rate (100%) for higher ambition level, deep renovation also step-by-step if steps are proofed by renovation passport and the risk of hygienic defects (moulds) is avoided. The requirements focus on energy costs savings, not on primary energy savings. Ensure a clear distinction in the scope or funding, by prioritising the worst performing buildings (EPBD Art. 3, and 9), first-time renovations, buildings constructed before 1983, not covered by the MoF. This investment is in line with the updated of NECP (final March 2025).
1.b	Objective of the M&Is, defining target groups, results and impacts, including on reducing fossil fuel dependency	**Objective of the investment:** The objective is renovation of worst performing buildings, where the energy savings, CO_2 emissions decrease and cost savings will be significant. **Target groups:** This investment targets vulnerable households or vulnerable micro-enterprises in worst performing buildings, owner-occupied family houses, who are living there permanently and do not have enough resources to renovate their houses. Worst performing buildings will be defined in the National Building Renovation Plan (EPBD Art. 3, 9).

	Element	Description
		Vulnerable households as defined in Article 2(10) of Regulation (EC) No 2023/955 are defined in more detail at the national level. Based on the draft definition by Ministry of Economy, the administrative identification of vulnerable households differs from the one for Obnov dom. The definition is based on a combination of income threshold, share of energy expenses in disposable income and energy performance of the building. **Results**: Higher energy efficiency and lower energy bills. **Impact**: For long lasting impact by decrease in energy consumption and CO_2 emissions, it is necessary to follow the principle of "energy efficiency first" in logically consecutive steps of the measures listed in the building renovation passport. Separate investments in components (e.g. only windows change) or only the technical systems change without thermal insulation of the envelope are not suitable measures for worse performing buildings. The installation of some systems is only possible after reducing the energy needs (RES, heat pumps). Households must perform an EPC assessment before the intervention starts and after the works are concluded, to ensure that the renovation has reached significant energy savings. In case of staged intervention, homeowners will have to obtain a renovation passport for the buildings. The funding could be attached to a step towards deep renovation as indicated in renovation passport. Other impacts are thermal comfort improvement, reduction of health risks due to indoor humidity, avoiding mould growth, reduction of noise by window replacement. For real cost savings achievement, comprehensive advice based on holistic building assessment and proof the potential for real energy costs savings in building renovation passport is needed. Isolated renovation actions based on products installation may even increase the energy costs. The worst performing buildings renovation will contribute to the objectives established in the EPBD (Art. 3 and Art.9). Focus should be placed on energy costs and fossil fuels consumption decrease, not only primary energy decrease. proofed by EPC in case of one step deep renovation to NZEB or in Building Renovation Passport, in case of staged deep renovation towards NZEB. The impact can vary in different climate localities. Savings achieved through total renovation in the model example in

	Element	Description
		individual regions (in MWh/year) for insulation of the external walls, roof and replacement of windows on the original brick family house with a floor area of 120 m^2, built between 1961 and 1980. The figure below shows a comparison of the estimated annual savings achieved by renovating an average family house in individual regions. The estimated difference in theoretically achieved savings between the warmest and coldest regions is about 30%. *Graf 12: Úspory dosiahnuté celkovou obnovou na modelovom príklade v jednotlivých krajoch (v MWh/rok)[24]*  *Zdroje: výpočty IHA* https://www.economy.gov.sk/uploads/files/SUC4mnBj.pdf This intestment will contribute to these EU policy instruments: **Directive on ambient air quality and cleaner air for Europe (2024/2881):** Household heating is currently the most significant source of air pollution in the Slovak Republic. Reducing the energy intensity of buildings and replacing outdated heating equipment with new renewable sources will contribute to improving air quality - potentially also to mitigating or eliminating the infringement that the Slovak Republic faces for poor air quality. The new directive tightens the current limits by more than two times in several cases from 2030 - it is necessary to address the problem that household heating has become. **Energy Performance of Buildings Directive (2024/1275)** The investment is in direct compliance with the requirements of the directive, implementation will contribute to reducing the primary energy consumption of households - given the prioritisation of households in energy poverty, it can be assumed that buildings with the worst energy performance will be renovated. **Regulation on the Governance of the Energy Union and Climate Action (2018/1999): Update of the National Energy and Climate Plan (NECP)** The 2025 NECP update in 'Chapter 3. 2 Decarbonisation' states that support for the renovation of family houses with an emphasis on households in a poor economic situation will be a

	Element	Description
		high priority. It is further stated that the situation in terms of energy savings will not fundamentally change by 2030 without securing additional financing from public sources, while in order to approach the required level of renovation rate (3% of family houses per year), it will be necessary to spend an additional, at least EUR 1.37 billion from public sources by 2030.
1.c	How the M&Is addresses effects of ETS2 on vulnerable groups	Family houses form approximately half of dwellings in Slovakia.  Source: ŠÚ SR, SODB 2021, ENBEE As visible in Figure 3-14 (DLV 2), the share of completely renovated houses is very low, as they make up less than 18% in eastern parts of Slovakia. The majority of the area is classified as “less developed regions of Slovakia”. The situation is only slightly better in the western part of Slovakia, where the renovated rate increases up to 22%. The majority of renovated buildings were built 40 years ago. *Figure 3-14 Completely renovated family houses*  Source: Statistical Office of the Slovak Republic *Source: Deliverable 2, Figure 3-14* Approximately 80% of the floor area of family houses was built before 2000. The most intensive construction of family houses took place in the period 1961–1980. No renovation was carried out on 26% of the floor area of apartments in family houses built before 2000. From the total number 1 098 868 of apartments in family houses, no renovation was carried out on approximately 285 705 apartments in family houses.

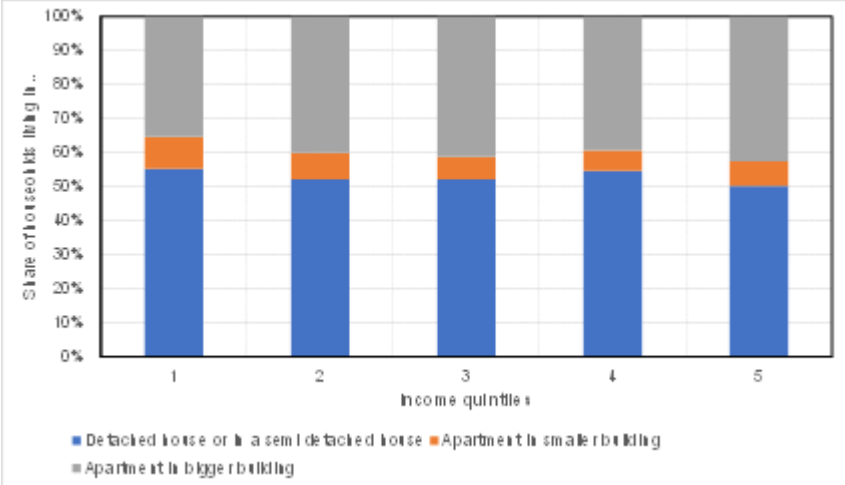
Element	Description



Source: ŠÚ SR, SODB 2021, IHA

The next figures show that a focus on family houses (or detached/semi-detached houses) is recommended, as a substantial proportion of low-income households and energy poor live in family houses.

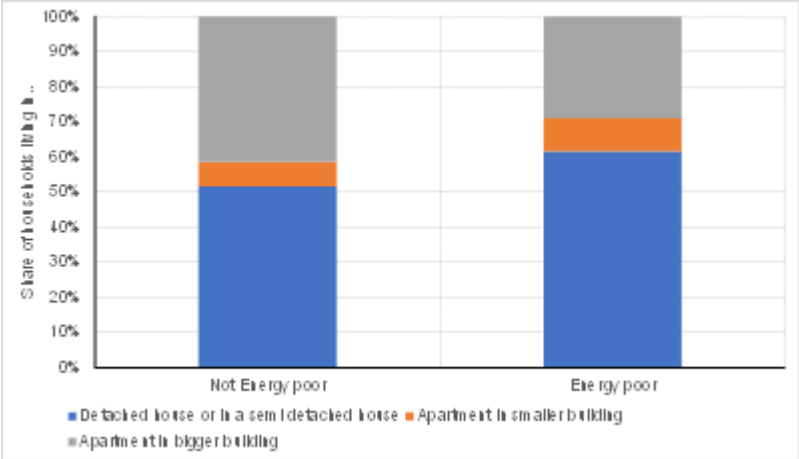
Dwelling type by income quintile



Source: Oeko-Institut SEEK-EU micromodel based on EU-SILC 2023 data

Element	Description

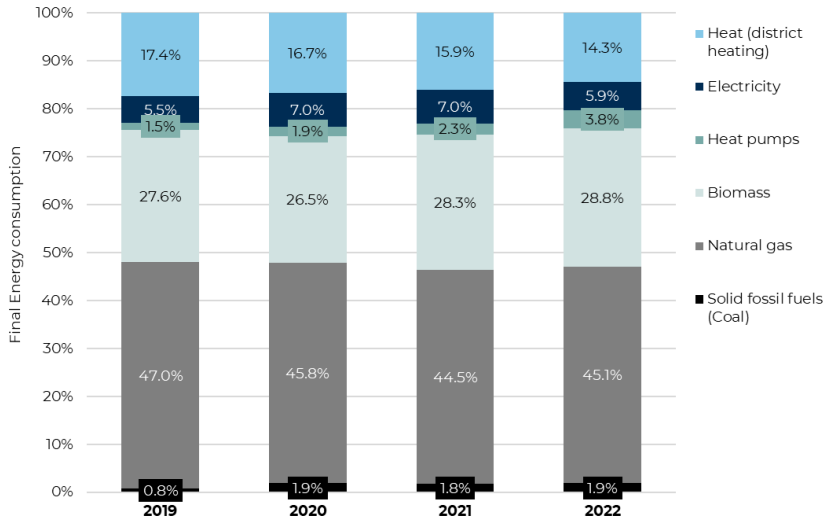
Dwelling type by energy poverty status



Source: Oeko-Institut SEEK-EU micromodel based on EU-SILC 2023 data
Note: A household is defined as energy poor if at least one of the following applies to the household: the household has arrears on utility bills, the household cannot keep the dwelling adequately warm, the household has a leaky roof, damp walls/floors/foundation, or rot in the window frame or floor

It is clear that a significant proportion of households will be exposed to gas price increases related to the introduction of the ETS-2. The role of natural gas in Slovakia is significant, it contributed 45.1% to space heating energy use in 2022 (Fig. 1-3 in DLV 2). Slovakia has the second most concentrated gas infrastructure in terms of gas pipelines developed in residential areas in the EU. Figure 3 16 in DLV 2 depicts that 66% of households use gas for heating and hot-water preparation, 21% of households use solid fuels and 5% uses electricity.

Figure 0-1 Household space heating energy use (2019–2022) (Source: DLV 2)

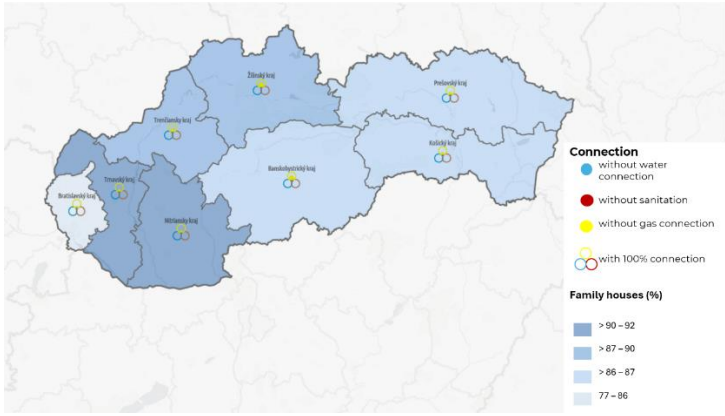


Element	Description

Source: EUROSTAT [nrg_d_hhq]

Note: A small residual of heating oil (0.2% in every year) is not shown in the graph.

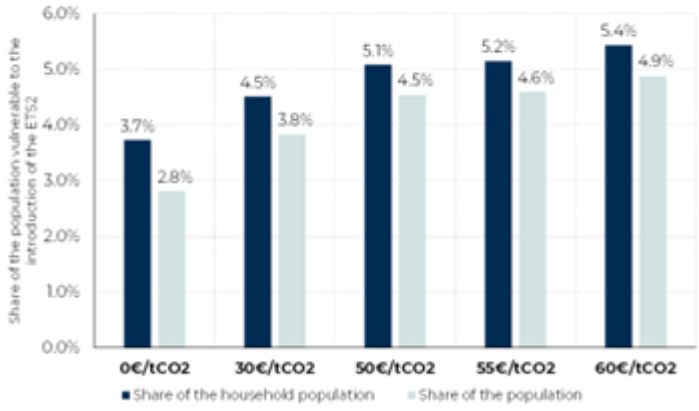
Figure 0-2 Connection of houses to utility networks (Source DLV 2)



Source: Statistical Office of the Slovak Republic

3.7% of households are estimated as vulnerable to energy poverty and particularly vulnerable to the introduction of ETS2 before the introduction of the ETS 2 (i.e. with an ETS2 price of EUR 0/tCO_2) according to the 2M indicator. This share increases by around 1-2% with an introduction of the ETS2 depending on the ETS2 price. The share of vulnerable households in Slovakia rises moderately with rising CO_2 prices. Approximately 4.5% of households are deemed vulnerable to energy poverty and particularly vulnerable to the introduction of ETS2 for an ETS2 price of EUR 30/tCO_2 and to 5.4% at an ETS2 price of EUR 60tCO_2.

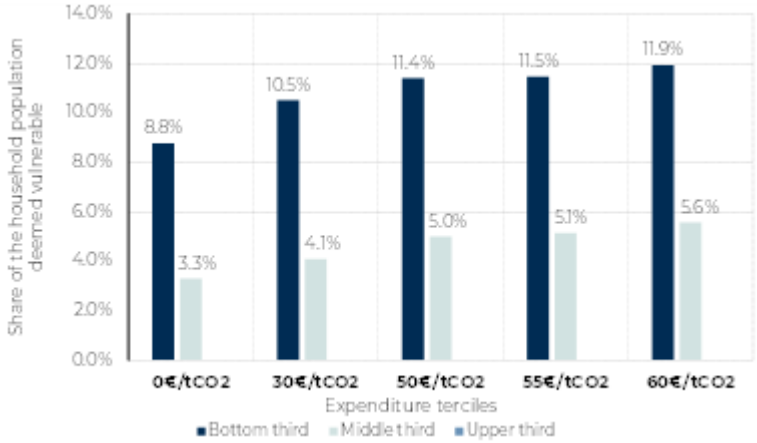
Figure 3-4 Share of the Slovak household population and share of the total Slovak population vulnerable to energy poverty and particularly vulnerable to the introduction of ETS2



Source: Deliverable 2, Figure 3-4

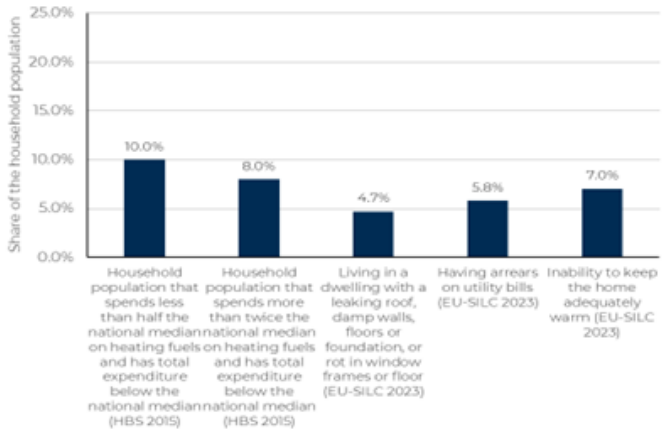
Element	Description

Households deemed vulnerable are situated in the lower to lower-middle income groups.



Source: Deliverable 2, Figure 3-5

Share of households identified as energy poor according to a number of indicators in Slovakia



Source: Oeko-Institut SEEK-EU micro model

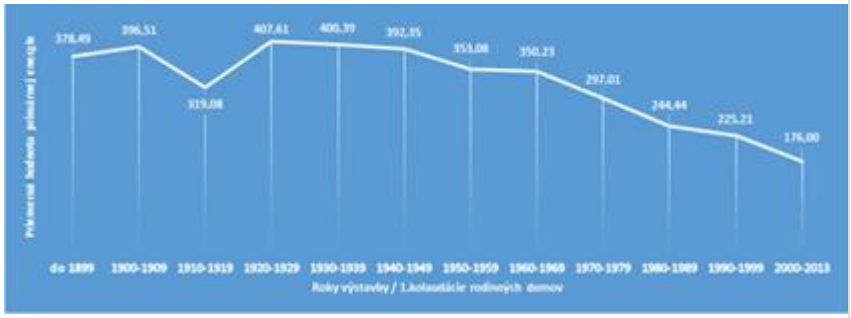
Some other indicators show much higher numbers – up to 10% based on EU-level data indicators. According to Dokupilová (2024), at least 16% of households in Slovakia can be considered energy poor. The share of households to be supported could also be assumed as greater than 5.4%. On the other hand, the fund is limited and therefore the focus must be on the most vulnerable.

Data from the Obnov dom scheme (SAŽP) show a potential for energy savings by family houses renovation. From data for all applications across calls (9 922 applications, where both the renovation and inspection were completed) the achieved savings by renovation in % or in kWh (non-renewable primary energy and total building energy demand) are:

Element	Description

- Average for wall insulation, window replacement = 58.48% savings / 101.08 kWh/a.m2 / realised savings = 23.57 MWh/a
- Average for wall insulation, window replacement, roof = 58.58% savings / 94.80 kWh/a.m2 / realised savings = 11.58 MWh/a
- Average for deep renovation (min. wall insulation, window replacement + heating and DHW) = 63.50% savings / 92.74 kWh/a.m2 / realised savings = 35.77 MWh/a

The next figure shows an average non-renewable primary energy before renovation reported in the EPC by year of construction based on data from Obnov dome scheme (SAŽP)



Source: SAŽP

Table: Average non-renewable primary energy before renovation by year of construction

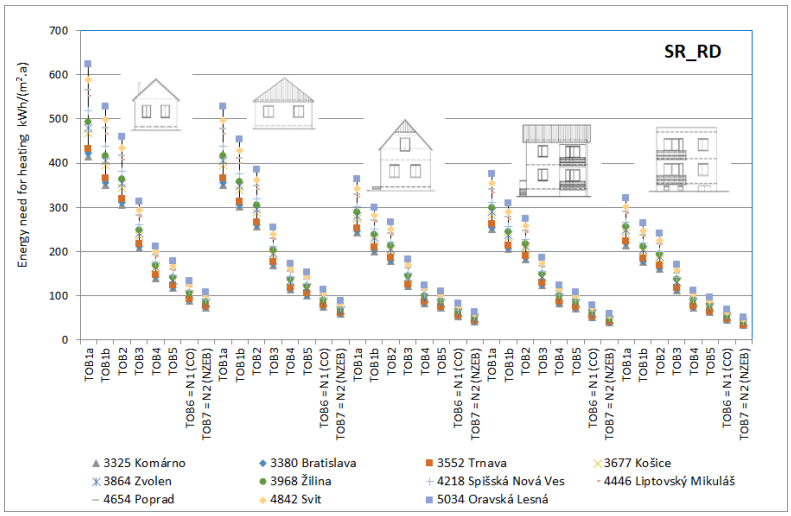
	Number	Non-renewable primary energy ex-ante (kWh/a.m²)	Floor area in m² ex ante
Family houses (FH) total number	9 922	294.63	199.51
FH constructed up to 1982 (inclusive)	6 660	331.91	186.10
FH constructed from 1983 (inclusive)	3 262	218.51	226.89

The investment supports the improvement of the energy efficiency of family houses owned by vulnerable households or a household with lower middle income or by vulnerable micro-enterprises, with the aim of achieving significant energy

Element	Description

savings, decrease of energy costs and reduction of greenhouse gas emissions with long-lasting impact.

The decrease of energy needs for heating can be up to 83% for the worst performing buildings renovated to the NZEB level as shown in the next Figure from national study.



Source: DLV 2, Figure 3-24

For the average size of family house (RD_C) with the gross floor area of 166 m^2, the energy need for heating (without DHW) in kWh/(m2.a) for different climate expressed by heating degree-days is in the next table. The potential yearly energy savings in kWh/(m2.a) are 232 kWh/(m2.a) for average climate.
The decrease of additional costs for heating due to ETS2 after renovation from the worst performing building to NZEB is approximately EUR 420 per year for the average climate (e.g., city of Zvolen HDD=3864 K.day).

Tab. 1: Energy need for heating in kWh/(m2.a) for family house with the gross floor area 166 m2

HDD	3325	3380	3552	3677	3864	3968	4218	4446	4654	4842	5034
TOB1a = worst	242.9	247.2	253.5	273.6	280.8	289.6	302.3	322.5	328.5	341.9	363.6
TOB1b	200.1	203.7	208.8	226.0	231.9	239.2	249.7	266.3	271.2	282.2	300.2
TOB2	177.8	181.0	185.6	201.2	206.3	213.0	221.8	237.1	240.7	250.6	266.8
TOB3	121.0	123.2	126.3	137.8	141.2	145.9	151.3	162.4	163.7	170.4	182.0
TOB4	82.7	84.3	86.2	94.8	97.3	100.7	104.0	112.0	112.6	117.0	124.7
TOB5	72.7	74.1	75.8	83.3	85.2	88.4	91.1	98.8	99.0	103.0	110.2
TOB6 = CO	53.6	54.7	56.1	61.5	62.6	64.8	67.1	72.3	73.0	76.2	82.0
TOB7 = NZEB	41.6	42.5	43.3	47.9	48.9	50.8	52.5	56.7	57.3	59.7	63.6

The gross floor area is used for kWh/m2 in line with the national definition of floor area reported in the EPC.

	Element	Description
		How the investment addresses effects of ETS 2 on vulnerable groups Family houses renovation will bring significant energy costs savings. The decrease of energy needs for heating can be up to 83% for the worst-performing buildings renovated to the NZEB level. In terms of non-renewable primary energy savings, as the results from "Obnov dom" scheme reported in EPCs, the average savings are 63.5% for deep renovation and 58.5% just for thermal insulation of walls and windows change. Family houses were obliged to achieve at least 30% energy savings, not NZEB.
1.d	Implementation – including how and at which administration level and incorporate recommendations for addressing foreseeable implementation challenges	The implementation authority will be the Slovak Environment Agency (SAŽP), which manages the exiting scheme "Obnov dom". The calls will be launched for worst performing family houses and for vulnerable or low or lower-middle income households and vulnerable micro-enterprises that will be identified via the national definition of vulnerable households (probably based on combination of income threshold, share of energy expenses in disposable income and energy performance of the building. These conditions have to be fulfilled: • Energy poverty and low or lower-middle income has to be proofed via the national definition. Households who are identified to be in "material need" and receive a "housing allowance" are automatically eligible vulnerable household for this investment. 59 502 households received a "material need" benefit. The entitlement to "housing allowance" was granted to 24 663 as of 31 December 2024. Households, of which there were **14 793 households that own an apartment or family house.** The housing allowance is currently tied to the material deprivation benefit, i.e. it only reaches **the most vulnerable**. • The family house, for the renovation of which a contribution is to be provided, must be registered as a "family home" in the Cadaster Registry (data in Record of ownership) • Identification of the worst-performing buildings should be based on the definition in the National Building Renovation Plan (EPBD Art. 3 and 9). • Exclusion of repeated support from existing support schemes (Obnov dom, Modernisation Fund) • The contribution is to be provided exclusively for expenses directly related to the renovation of a family home.

	Element	Description
		• The goal of the renovation itself should be the deep renovation, if reasonable, also in step-by-step (e.g. heating system with sufficient residual lifespan should not be changed). The risk of hygienic defects must be checked and the steps must be proofed by mandatory building renovation passport (BRP). • Support should be conditional on a correct estimate of potential cost savings in EPC before renovation and confirmed by EPC after renovation. This investment should be implemented together with Measure 4 (Advice, professional assistance and education) **Foreseeable implementation challenges:** • Differing income threshold proof for households: Based on draft definition by Ministry of Economy, the administrative identification of vulnerable households differs from the one used in "Obnov dom". The definition is based on a combination of income threshold, share of energy expenses in disposable income and energy performance of the building. These data sources are available via the national statistical office. • Missing national definition of vulnerable micro-enterprises. • Missing definition of worst performing buildings. According to EPBD Art. 3 and 9. By 29 May 2026, each MS shall establish a national trajectory for the progressive renovation of the residential building stock in line with the national roadmap and the 2030, 2040 and 2050 targets contained in the MS's national building renovation plan. The national trajectory for the progressive renovation of the residential building stock is expected to identify 43% of Slovak buildings stock as the worst-performing residential buildings. As a fallback approach, family houses constructed before 1983 without any renovation could be considered as the worst performing buildings. The year 1983 is a well-known milestone for the change in requirements for thermal protection of buildings and the improvement of energy efficiency of new buildings constructed after this year. When implementing the revised EPBD, it is necessary to introduce in EPC the new indicators (final energy, delivered

	Element	Description
		energy per energy carrier), for a prediction of energy cost savings. As a result, the identification of eligible family houses may be a challenge for those households who may not be able to prove the current energy performance of their family house or the possibility of a family house belonging to the worst performing buildings stock, but had been built after the above-suggested year 1983. A thorough process to develop a comprehensive and contextualised definition of a worst performing building will be necessary and will need to be reached by the time the investment is implemented. Similarly, the income threshold proof will need to be set within the scope of this investment to account for the proposed increase of provided funding per family house from EUR 10 000 to EUR 30 000. Lessons learnt from the existing measure 'Obnov dom' should be adapted to the scope of this investment and methodological guidance to applicants will need to be revised and provided. Support provided via a separate measure on subsidies to energy renovation passports should also be highlighted to users.
1.e	Gender aspect – how gender inequality is addressed (if applicable)	In Slovakia, the share of single males and females being identified as energy poor according to the EU-SILC indicators are very similar, which may point to the fact that there is not a significant gender aspect to this investment. At the same time, national data shows that single-parents (mostly women) are more likely to be at risk of poverty. Among households without children, single-person households of women aged 65 and over are most at risk of poverty and social exclusion
1.f	Identify key success factors and remaining risks and challenges (+ provide recommendations on how to overcome/mitigate them)	**Key success factors**: Experience from "Obnov dom" scheme shows that assistance to vulnerable groups is necessary and was a key success factor in some regions, where the contact with potential recipients was more active. **Risks and challenges**: • The main risk is that the interest will be low as the benefits could not be well understood by target groups. • It is important that this investment is implemented together with measure 4 (Advice, professional assistance and education) combining one-stop-shops according to the EPBD and EED and community / field social work. Involvement of field social workers who could identify the potential recipients is crucial. • Need for pre-renovation financing.
1.g	Additionality assessment	To ensure additionality and avoid overlapping, this SCF investment introduces complementary support to "Obnov dom" scheme with the additional advice and professional assistance, grants, higher ambition level and prioritising the

	Element	Description
		worst-performing buildings or the first-time renovations or specific building types. Expanding the ambition level from partial to deep renovation can provide sufficient additionality, as long as: The SCF investment explicitly funds only deep renovations even if in step-by-step based on Building Renovation Passport, while the Modernisation Fund remains focused on partial renovations. • Households receiving partial renovation support from the Modernisation Fund are not eligible for additional SCF funding unless it is a part of a staged approach (e.g., aligned with a Building Renovation Passport towards deep renovation, such as change of heating system in already fully insulated building). • There is a strict financial separation to prevent double counting, ensuring deep renovation funding (up to EUR 30 000) does not cover the same renovation actions funded under the MoF's partial renovation scheme. (i.e. it could be funded EUR 10–11 000 from the Modernisation Fund, and the remaining EUR 19–20 000 from the SCF on a same renovation, so far as indeed it is not covered the same renovation actions under both) Regarding the uncertain potential time overlapping with the partial renovation under the scheme "Obnov dom mini" and Modernisation Fund, the SCF M&Is could qualify as additional because of the 21 000-household limit extend beyond the initial outline to additional 20 000 households supported from SCF. To ensure additionality and avoid overlap, the SCF should: • Increase the target group beyond the initial 21 000 households (4 080 + 16 940), ensuring it captures unmet demand rather than duplicating support. • Establish a clear handover mechanism, where SCF activates either after Modernisation Fund financing depletion or in designated areas which the Modernisation Fund did not reach. • Define eligibility sequencing, prioritising households that were ineligible for Modernisation Fund support or those in regions where Modernisation Fund financing was insufficient.
2	Alignment of M&Is with DNSH principles in accordance with Article 17 of Regulation (EU) 2020/652	

	Element	Description
	Information on how M&Is included in the component comply with the principle of DNSH within the meaning of Article 17 of Regulation (EU) 2020/852[42]	
Approach 1	Are there any activities and/or assets under this measure or investment aligned with one or several sector-specific annexes?	Yes, the investment is aligned with activities B3.1 (energy efficiency renovation of existing buildings), B5 (installation, maintenance and repair of instruments and devices for measuring, regulating and controlling the energy performance of buildings), B6 (installation, maintenance and repair of renewable energy equipment), and E10 and E11 (storage of electrical and thermal energy) of the Annex to the technical guidance.
Approach 2	Are there activities and/or assets under this measure or investment not covered by one or several sector-specific annexes and that do not rely on the alternative approaches (see rows below)	Not applicable, approach 1 followed.
Equivalence	Are there activities and/or assets under this measure or investment aligned with the EU Taxonomy (substantial contribution) and DNSH technical screening criteria?	Not applicable, approach 1 followed.
	Is this measure or investment a financial product implemented under the InvestEU Member	Not applicable, approach 1 followed.

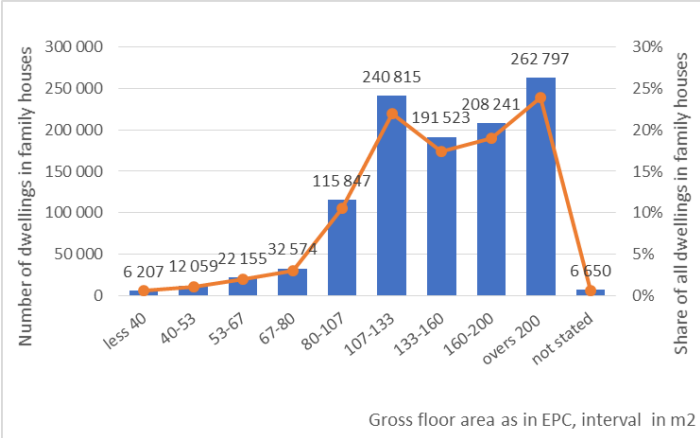
[42] European Commission. (5 March 2025). Commission Notice – Technical guidance on applying the 'do no significant harm principle' under the Social Climate Fund Regulation. https://climate.ec.europa.eu/document/download/2f3269ea-fb02-4481-a1d5-3453ba3172ea_en?filename=c_2025_880_part_1_en.pdf.

	Element	Description
	State compartment?	
	Does the M&Is have any significant foreseeable impact on…	
2.a	Climate change mitigation	Compliance with applicable legislation is sufficient to prevent significant harm
2.b	Climate change adaptation	1) For major renovations of individual buildings above 2 000 m^2 of useful floor area or of buildings or building units forming part of the same development totalling at least 2 000 m^2 of useful floor area, a satisfactory summer overheating analysis or demonstration of absence of increase in cooling is performed at project level. 2) For major renovations of individual buildings of at least 5 000 m^2 or building units forming part of the same development totalling at least 5000 m^2 of useful floor area, situated on land that has been identified at significant risk of flooding that is not adequately protected by national, regional or local flood risk management measures: a) The public authority has commenced the planning process to develop adequate flood mitigation measures protecting the land in question; OR b) the major renovations integrate or are accompanied by adequate flood mitigation measures protecting the individual buildings or the property concerned.
2.c	The sustainable use and protection of water and marine resources	Compliance with applicable legislation is sufficient to prevent significant harm
2.d	The circular economy, including waste prevention and recycling	For: a) major renovations of individual buildings above 2 000 m^2 of useful floor area and of buildings or of building units forming part of the same development totalling above 2 000 m^2 of useful floor area; or b) renovations of individual buildings or of building units above 2 000 m^2 of useful floor area and of buildings or of building units that are part of the same development totalling above 2 000 m^2 of useful floor area; the following criteria apply: i. For (a): prior to carrying out any works on buildings, a pre-demolition audit or prerenovation audit is completed. The audit is based on applicable national or local methodologies. Alternatively, it uses Annex F of the EU Construction and Demolition Waste Protocol. ii. For (a) and (b): at least 70% of the non-hazardous construction and demolition waste generated on the construction site (by mass in kilogrammes), excluding naturally occurring material listed under category 17 05 04 in the European List of Waste (Decision 2000/532/EC), is prepared for re-use or recycled. Backfilling is not considered preparing for re-use or recycling.

	Element	Description
2.e	Pollution prevention and control to air, water, or land	Compliance with applicable legislation is sufficient to prevent significant harm
2.f	The protection and restoration of biodiversity and ecosystems	Compliance with applicable legislation is sufficient to prevent significant harm
3	**Target and milestones: implementation timeline**	
3.a	why the specific milestone(s) or target(s) was(were) chosen;	**Target**: Renovation of approximately 20 000 family houses with the investment of about EUR 30 000 per house on average.
3.b	what the milestone(s) or target(s) is(are) measuring;	**Target**: The number of worst performing family houses occupied by vulnerable households or vulnerable micro-enterprises where energy efficiency expressed in final energy is improved by at least estimated amount e.g. 30%. The target is a deep renovation also staged, but the individual renovation steps must be in line with Building renovation passport. **Milestones**: 2026/2027: Scheme launched in legislation (or 2027/2028 depending on the ETS2 introduction), calls preparation in collaboration with one-stop-shops, field workers, capacity building (Measure 4) 2028-2032: Calls, Number of renovated family houses (4 000 houses per year)
3.c	how this will be measured, what methodology and source will be used, and how the proper achievement of the milestone(s) or target(s) will be objectively verified;	**Methodology:** milestones and targets will be measured by key performance indicators: the number of buildings having undergone renovation, the savings in annual primary and final energy will be verified by EPC issued before and after renovation.
3.d	what is the baseline (starting point) and what is the level or specific point to be reached;	**Baseline**: The baseline are the targets of the "**Obnov dom mini**" and **Modernisation Fund** programmes' renovation of 21 000 family houses renovation based on these assumptions: • The currently existing equivalent of this investment is the "Obnov dom Mini" scheme for partial renovation, which operates on the funds of the Recovery and

	Element	Description
	(Quantified value of the targets)	Resilience Plan (ROP), chapter REPowerEU and aims to renovate at least 4 080 family houses by the end of 2025. • Funds from the Modernisation Fund are allocated for the subsequent continuation of the scheme in this form, and partial renovation of another 16 940 family houses is expected. Current data from the whole "**Obnov dom"** scheme (SAŽP): 9 992 homes where the renovation and inspection were completed (i.e. cumulatively as of the date we sent the numbers). By mid-2026 (the completion of the renovation plan) there will be at least 25 164 (that is a binding goal). The breakdown of performance by year is below. The data is cumulative, the first number is the number of payment applications received, i.e. it indicates projects completed at that time, the second number is the number of completed checks and funds paid by SAŽP: • by 12/2022 – 0/0, even though someone could have already had the renewal done and we paid the support retroactively, in 2022 contracts were just starting to be concluded • by 12/2023 – 683/106 • by 12/2024 – 10 804/5 539 • by 12/2025 (estimate) – 20 000/19 000 • by 6/2026 (estimate) – 25 164/25 164 **The worst performing buildings** for EPBD are not defined yet. Not renovated family houses constructed before 1983 could be regarded as the worst performing buildings. Based on statistical data, from the total number of 1 098 868 dwellings, in family houses no renovation was carried out on approximately 26% of total floor area. That comprises about 285 705 dwellings in family houses. 65% of floor area was constructed before 1980, meaning **185 700** family houses were constructed before 1980 and have not been renovated. Considering the share of the Slovak household population vulnerable to energy poverty and particularly vulnerable to the introduction of ETS2 (10% at an ETS2 price of 60 EUR/tCO_2, 18 570 **family houses** could be classified as worst performing houses owned by vulnerable households. This is a minimum amount as this figure assumes an even distribution of the worst unrenovated buildings across the population, while in

	Element	Description
		reality there will be more of them among vulnerable households. **The level or specific point to be reached** (quantified value of the targets) is the renovation of additional approximately 20 000 worst performing family houses from SCF.
3.e	by when it will be reached (by quarter and year)	The work will start as of 1 January 2027 with the first year focusing on calls preparation. In the same starting year, the advice, professional assistance combining one-stop-shops and community/field social workers and education (Measure 4) has to be prepared so that a help to potential recipients will be possible from 2028. The targets are expected to be reached by 31 December 2032, so a period of 6 years is assumed.
3.f	who and which institution will be in charge of implementing, measuring and reporting.	**Implementing authority:** Slovak Environment Agency (SAŽP) will be in charge of implementing, measuring and reporting on the investment.
3. g	Where applicable, a timeline for gradual reduction of support	N/A
4	**M&Is Implementation and Monitoring**	
4. a	Who and which institutions will be in charge of implementation, measuring and reporting	**Implementing authority:** Slovak Environment Agency (SAŽP) will be in charge of implementing, measuring and reporting.
4. b	Determine key performance indicators	This investment will contribute to the following **indicators**, which should be reported: • the increase of the number of buildings/floor area of buildings having undergone deep renovation or other energy renovation, • the reduction of number of households in energy poverty, • the reduction in greenhouse gas emissions, • savings in annual primary and final energy consumption, confirmed for individual family houses by EPC before and after renovation. The relevant indicator for **indicative milestones and targets** for this investment is the number of buildings having undergone renovation.

	Element	Description
4.c	Describe rules to monitor the achievement of the objectives	The calls will be launched and the successful applicants will be monitored and will have to report the savings in annual primary and final energy based on EPC issued before and after renovation and potentially also report measured energy before and after renovation.
5	**Financing and costs**	
5.a	Methodology, underlying assumptions and their justification	Assumptions for cost estimation: The weighted average family house dwelling floor area according to 2021 Census of Population, Apartments and Houses, recalculated from a net useful floor area (2021 Census) to gross floor area reported in EPC is 189 m^2. The next figure shows the family houses distribution based on the gross floor area  *Source: ŠU SR, SODB 2021, ENBEE* Exact data were provided by SAŽP from „Obnov dom“ programme: Data for all applications across calls from Obnov dom (9 922 applications): the average floor area of renovated family houses (RD) in m2/RD = 214.88 m^2 (gross floor area as reported in the EPC) Data from the “Obnov dom” scheme, only for applications from calls V03 and V04 (higher unit prices, 75% funding intensity, absolute limits 15/19k according to achieved savings, total 7 184 approved applications). Renovation costs (average in EUR/house, or in EUR/m2 of gross floor area of house as reported in the EPC): • wall insulation, window replacement = 4 465 requests, average amount EUR 27 530, average floor area 192.68 m^2, average per m^2 = 142.88 EUR/m^2 • wall insulation, window replacement, roof = 1 114 requests, average amount EUR 29 811, average floor area 215.62 m^2, average per m^2 = 138.25 EUR/m^2

<table>
<tr><th></th><th>Element</th><th>Description</th></tr>
<tr><td></td><td></td><td>
deep renovation (min. wall insulation, window replacement + heating and TV system) = 1 593 applications, average amount EUR 29 877.8, average floor area 176.03 m^2, average per m^2 = 169.7 EUR /m^2
Recalculation of SAŽP data to average family house of 189 m^2 of gross floor area:
Only wall insulation, window replacement: EUR 27 005
Deep renovation (min. wall insulation, window replacement + heating and TV system): EUR 32 079
Average: EUR 29 542.
Assumed costs for renovation of one family house is EUR 30 000 in average. The renovation costs also include the design documentation and the "Design Energy Assessment".

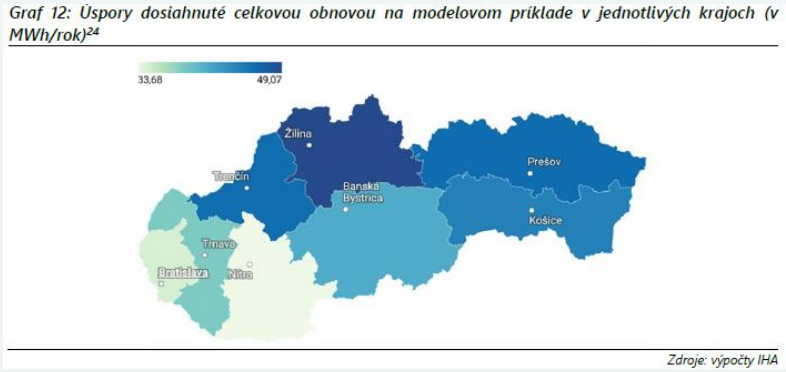
Unit costs reflect the government's intention to help the widest possible range of beneficiaries, while following the energy efficiency first principle.
</td></tr>
<tr><td>5.b</td><td>Total cost of the M&Is</td><td>The total cost of the investment will be EUR 605.1 million for 20 000 family houses renovated during the SCF period of 6 years.
The estimated cost of a marketing campaign to raise awareness of the scheme is EUR 5 million (in average EUR 1 million per year), specifically: EUR 2 million in 2028 at the starting point, EUR 1 million in each year 2029-2031 and none in the last year 2032.</td></tr>
<tr><td>5.c</td><td>Comprehensive timetable within which the costs are to be incurred</td><td>The work will start of 1 January 2027 with the first year focusing on calls preparation. In the same starting year the professional assistance combining one-stop-shops and community / field social workers and education (Measure 4) has to be prepared so that a help to potential recipients will be possible.
<table>
<tr><th>Year</th><th>Number of renovated family houses (FH)</th><th>Costs per unit EUR /FH</th><th>Total costs per year EUR</th></tr>
<tr><td>2027</td><td>Calls preparation</td><td></td><td>0.1</td></tr>
<tr><td>2028</td><td>4 000</td><td>30 000</td><td>120 mil. +2 campaign</td></tr>
<tr><td>2029</td><td>4 000</td><td>30 000</td><td>120 mil. +1</td></tr>
<tr><td>2030</td><td>4 000</td><td>30 000</td><td>120 mil. +1</td></tr>
<tr><td>2031</td><td>4 000</td><td>30 000</td><td>120 mil. +1</td></tr>
<tr><td>2032</td><td>4 000</td><td>30 000</td><td>120 mil.</td></tr>
<tr><td>Total</td><td></td><td></td><td>605.1 mil.</td></tr>
</table>
</td></tr>
</table>

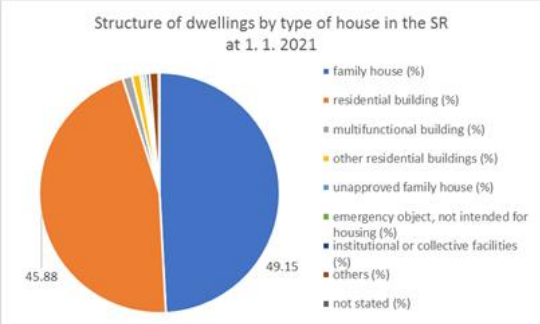
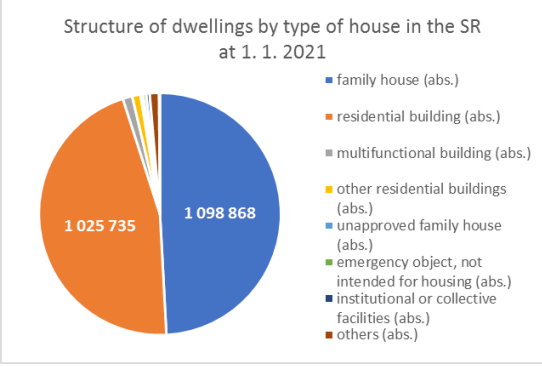
	Element	Description
5.d	Info on national contribution on total cost of M&Is	Co-financing 25% from national funds
5.e	Info on additional financing from other Union instruments that could be applicable to the M&Is	Perhaps a combination with financing of partial renovation from the Modernisation Fund, the time of exhaustion of which is unknown, until the Modernisation Fund is exhausted, probably in the first year of the SCF contribution in 2028.
5.f	Info on envisioned financing from private sources	None.
5.g	Justification on plausibility and responsibility of estimated costs	The costs estimation is based on experience from scheme "Obnov dom" and "Obnov dom mini"
6	**In the case of M&Is to increase uptake of zero and low-emission mobility and transport, criteria for identifying eligible beneficiaries**	
6.a	Time limit for the M&Is and a justification on the basis of quantitative and qualitative explanation on how the M&Is counteracts increases in price of transport and heating fuel	N/A

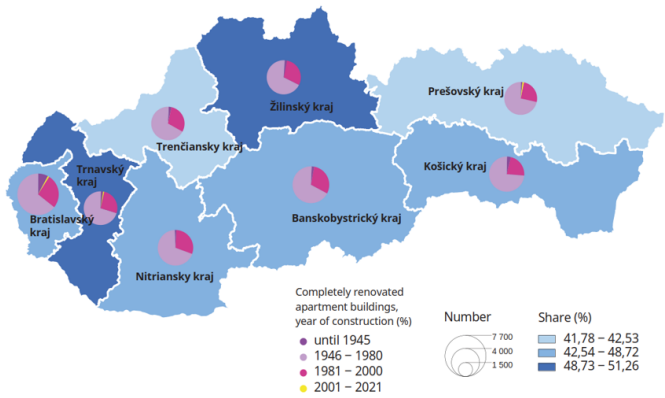
Table 0-2 Investment 2: Support for apartment building renovation

	Element	Description
1	General description of the M&Is A detailed description of M&Is based on desk research and information gathered from stakeholders	
1.a	The nature, size and type of the M&Is- including if it is new or existing	**Nature**: This investment targets the improvement of energy performance of apartment buildings by providing grants proportional **to vulnerable households** – flat owners, for loan repayment by the increased contribution to the Operation, Maintenance and Repair Fund (created based on Act No. 182/1993 Coll.) after multi-apartment building renovation. This will support a faster decision-making on energy efficiency and decarbonisation solutions in multi-apartment buildings

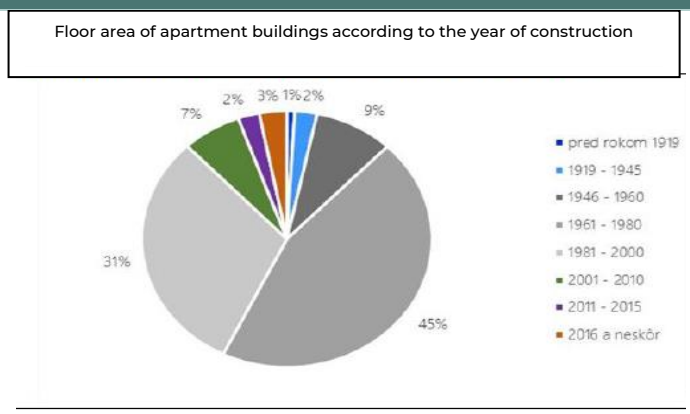
	Element	Description
		by owners' association (obligatory created legal entity) towards multi-apartment buildings renovation from existing subsidy scheme State Housing Development Fund (ŠFRB) that requires approval by 2/3 majority of all flat owners for taking loan for investment in renovation. Vulnerable households often do not agree to the renovation because their payment to the *Operation, Maintenance and Repair Fund* to repay the loan will increase. This is a common reason why some multi-apartment buildings are not renovated. The grant will support only the contribution by vulnerable households living in apartment building to the loan from the ŠFRB. The subsidies from ŠFRB (low-interest loan) are provided by the Ministry of Transport of the Slovak Republic according to the Act No. 443/2010 Coll. on Subsidies for Housing Development and on Social Housing as amended. Apartment building renovations in Slovakia are organised by owners' association or facility management company and funded via a low interest loan from ŠFRB (with possibility of loan remission) or by private banks loans or by loan provided by building savings companies. Repayment of the loan is channelled via the obligatory Operation, Maintenance and Repair Fund (created based on the Act No. 182/1993 Coll.) The monthly payment for households living in the building will subsequently increase due to the repayment of the loan related to the apartment building renovation. To renovate an apartment building, 2/3 majority of flat owners need to agree to take the loan related to the renovation. As a result of higher monthly payments due to renovation costs, flat owners with lower incomes often do not agree to the renovation process. This investment targets vulnerable households by reducing their costs related to renovation of their multi-apartment buildings. By decreasing the direct costs for vulnerable flat owners, the investment may incentivise them to sign off on apartment building renovations **Type**: Building renovation **New or existing**: New/extension: The grant for repayment of the portion of a vulnerable household loan to the *Operation, Maintenance and Repair Fund* related to apartment building renovation is an extension to the existing ŠFRB scheme with a new grant component for the vulnerable households.
1.b	Objective of the M&Is, defining	**Objective of the investment:**

	Element	Description
	target groups, results and impacts, including on reducing fossil fuel dependency	The objective is the increase of energy efficiency and decrease the energy costs of flat owners by additional thermal insulation, change of windows, change of heating system (if relevant), installation of RES (if relevant) of the remaining 25% of not insulated apartment buildings by supporting the decision taking by owner's association or facility management company (towards renovation using the existing ŠFRB scheme or other funds (e.g. EU structural funds from the Slovakia Programme) which provide loans that have to be repaid. **Target groups:** flat owners, identified as vulnerable households based on national definition, preferably living in worst performing buildings where the cost reduction is highest but also the renovation of other buildings can be supported in case it supports vulnerable households. Worst performing buildings could be determined based on definition in National Building Renovation Plan (EPBD Art. 3, 9) **Results**: The expected results are higher energy efficiency and lower energy bills compared to the state before restoration. **Impact**: Multi-apartment buildings renovation has a significant impact in terms of energy savings and decrease of energy costs. Depending on the age of building the energy savings can be 30–70% and in this way this investment supports the Fund's goals, including reducing fossil fuel dependency. Impact can be different in different climate localities as shown on the model example in individual regions (in MWh/year) for insulation of the external walls, roof and replacement of windows on the original brick family house with a floor area of 120 m^2, built between 1961 and 1980. The estimated difference in theoretically achieved savings between the warmest and coldest regions is about 30%. *Graf 12: Úspory dosiahnuté celkovou obnovou na modelovom príklade v jednotlivých krajoch (v MWh/rok)[24]*  *Source:* https://www.economy.gov.sk/uploads/files/SUC4mnBj.pdf

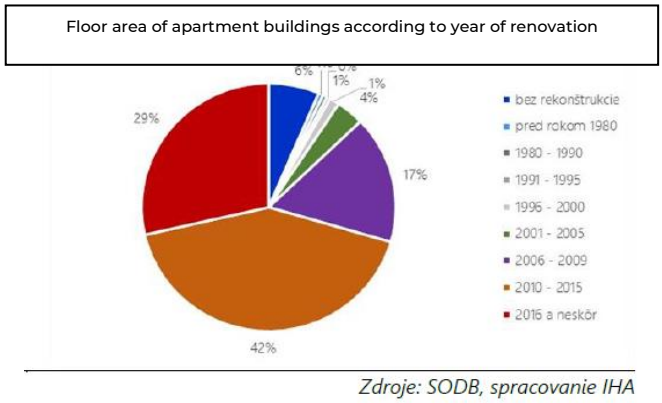
	Element	Description
		Stabilising the downward trend in energy savings achieved through the renovation of apartment buildings in recent years is one of the priorities until 2030 set out in the NECP (March 2025). The NECP assumes replacing preferential interest rates with a grant component as a motivation for households in uninsulated or partly insulated apartment buildings.
1.c	How the M&Is addresses effects of ETS2 on vulnerable groups	Additional insulation of multi apartment buildings is an existing popular measure in Slovakia that brings real savings to flat owners due to well working the ŠFRB subsidies scheme which provides loans for renovation and other similar schemes. This is why 75% of multi apartment buildings in Slovakia have already and additional insulation. The renovation of the remaining 25% apartment buildings goes slowly because of several reasons. Based on draft NECP (Oct. 2024) most of not renovated apartment buildings are smaller older brick low-rise buildings. They are probably in smaller cities, not connected to big district heating systems, and often use own heating systems based on gas or other fossil fuel (in individual flats or with the house central heating system). The obstacle for renovation is often the approval by the required two-third majority of flat owners in apartment building. The reason could be that the investment costs for additional insulation per flat are higher in smaller building than in a larger building. Apartment buildings form approximately half of dwellings in Slovakia.  Source: ŠÚ SR 

Element	Description
	Source: ŠÚ SR *As shown in Figure 3-15 (DLV 2), the renovation of apartment buildings has seen a better uptake due to existing renovation support schemes. Up to 52% of apartment buildings are completely renovated in some regions. The majority of these were built between 80 and 45 years ago.* *Figure 3-15 Completely renovated apartment buildings*  *Source: Statistical Office of the Slovak Republic* *Source: DLV 2, Fig. 3-15* *Approximately 88% of the floor area of apartments in apartment buildings was built before 2000.* *There are 77 113 apartment buildings (address points) in Slovakia, which contain 1 025 735 apartments. The most intensive construction of apartment buildings took place in the period 1961–1980. The area of apartments in apartment buildings (address points) built after 2000 makes up 12% of the total area of apartments in apartment buildings.* *Note: The Statistical office has data on address points, not buildings. One big building can have more sections with more different address points.* ***Only 6% of the floor area in apartment buildings remains without any renovation**.* *Most renovations, up to 70% of apartment buildings, took place after 2010, when stricter standards were in effect (since 2012).*

Element	Description

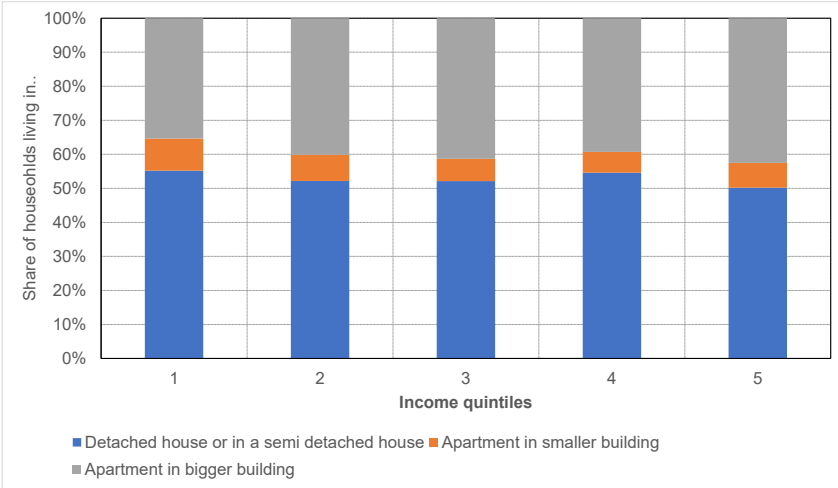


Source: SODB, IHA



Source: SODB, IHA

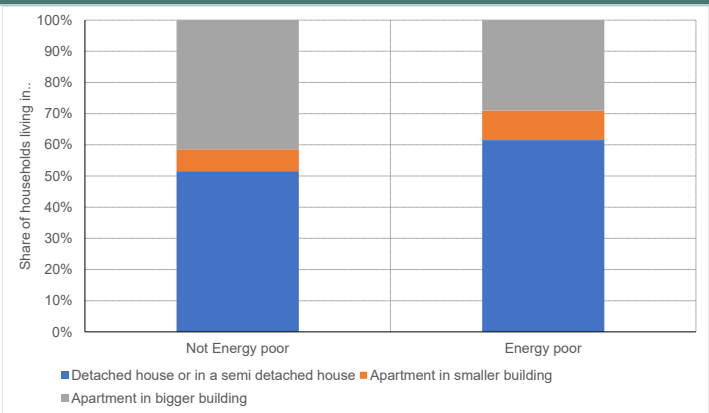
Dwelling type by income quintile



Source: Oeko-Institut SEEK-EU micromodel based on EU-SILC 2023 data

Dwelling type by energy poverty status

Element	Description

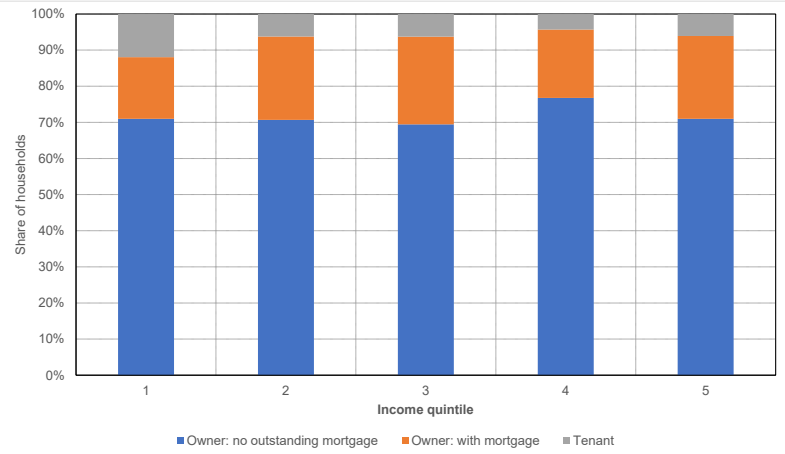


Source: Oeko-Institut SEEK-EU micromodel based on EU-SILC 2023 data

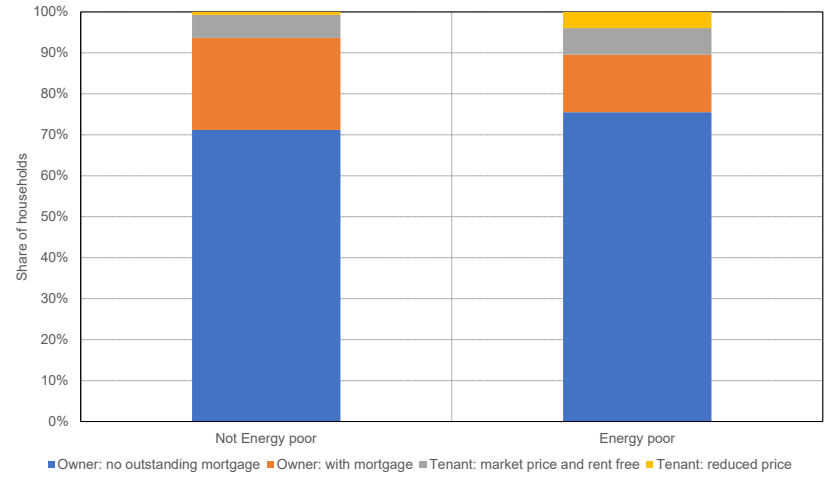
Note: A household is defined as energy poor if at least one of the following applies to the household: the household has arrears on utility bills, the household cannot keep the dwelling adequately warm, the household has a leaky roof, damp walls/floors/foundation, or rot in the window frame or floor

It is clear from the above graphs that low-income groups **live more in smaller apartment buildings**, which also form the main part of not renovated apartment buildings. Due to the less favourable form factor of small buildings (higher envelop area to volume ratio), energy consumption in kWh/m^2 is much higher, as well as **the investment costs for additional insulation** (walls, roof, floor above basement) **are higher per m^2 of flat in smaller building** than in a larger building.

Tenure status by income quintile



Source: Oeko-Institut SEEK-EU micromodel based on EU-SILC 2023 data

Element	Description
	Dwelling type by energy poverty status  *Source: Oeko-Institut SEEK-EU micromodel based on EU-SILC 2023 data* *Note: A household is defined as energy poor if at least one of the following applies to the household: the household has arrears on utility bills, the household cannot keep the dwelling adequately warm, the household has a leaky roof, damp walls/floors/foundation, or rot in the window frame or floor. According to Eurostat rules, the results for the category "tenant: reduced price" should be flagged due to a low number of observations (20–49 observations)* **How the investment addresses effects of ETS 2 on vulnerable groups:** The investment supports the improvement of the energy efficiency of remaining not-renovated multi-apartment buildings with the aim of achieving significant energy savings, decrease of energy costs and reduction of greenhouse gas emissions with long-lasting impact. Other impacts are thermal comfort improvement, reduction of health risks due to indoor humidity, avoiding mould growth, reduction of noise by window replacement. The decrease of energy needs for heating can be up to 70% for the worst performing buildings with additional thermal insulation and change of windows. According to estimates by IHA, the energy source for heating apartment buildings is slightly different from that of family houses, the share of natural gas reaches up to 74%, mainly at the expense of solid fuel, which represents 14%. The “other” energy source for heating covers 8% of energy consumption and was mentioned mainly in the case of central heating supply. Table 2 shows the relationship between the estimated share of the energy source for heating and the estimated

<table>
<tr><th></th><th>Element</th><th>Description</th></tr>
<tr><td></td><td></td><td>share of the source in the savings achieved by the renovation of apartment buildings. The share in the total consumption and the share in renovation are almost identical, so renovations take place independently of the energy source.
Tabuľka 2: Porovnanie celkovej spotreby a úspory realizovanou obnovou v závislosti od zdroja energie na vykurovanie v BD[12]
<table><tr><th></th><th>Zastúpenie na celkovej spotrebe</th><th>Zastúpenie na úspore dosiahnutej realizovanou obnovou</th></tr><tr><td>Zemný plyn</td><td>74 %</td><td>73 %</td></tr><tr><td>Pevné palivo</td><td>14 %</td><td>14 %</td></tr><tr><td>Elektrina</td><td>3 %</td><td>1 %</td></tr><tr><td>Iný</td><td>8 %</td><td>11 %</td></tr></table>Zdroje: SODB, výpočty IHA
The estimated heat demand of apartment buildings connected to a district heating system for heating represents 60% of the total heat consumption. In apartments connected to a district heating system, renovation is more frequent.

In apartment buildings, the share of heat supply through a district heating system reaches up to 60%. Table 3 shows the relationship between the estimated share of heating type in consumption and the estimated share of heating type in savings. It is clear from this that savings M&Is to some extent favour households connected to district heating, while there is no preference for specific energy sources used by heating plants providing heat.

Tabuľka 3: Porovnanie celkovej spotreby a úspory realizovanou obnovou v závislosti od spôsobu vykurovania v BD
<table><tr><th></th><th>Zastúpenie na celkovej spotrebe</th><th>Zastúpenie na úspore dosiahnutej realizovanou obnovou</th></tr><tr><td>Centralizované zásobovanie teplom (CZT)</td><td>60 %</td><td>78 %</td></tr><tr><td>Iné[14]</td><td>40 %</td><td>22 %</td></tr></table>Zdroje: SODB, výpočty IHA</td></tr>
<tr><td>1.d</td><td>Implementation – including how and at which administration level and incorporate recommendations for addressing foreseeable implementation challenges</td><td>Implementation: The implementation will be based on existing long-term national programme governed by Ministry of Transport SR in line with the approved National Housing Policy.

The implementing organisation will be the State Housing Development Fund (ŠFRB). The calls will be launched for vulnerable households that are identified based on the national definition of vulnerable households provided by Ministry of Economy in the same way as identification of vulnerable households for family houses renovation. Assistance by the building managers or owners' association (obligatory created legal entity) will be necessary.

These conditions have to be fulfilled:
• Energy poverty and low or lower-middle income has to be proved via an income threshold and other conditions based on definition of vulnerable</td></tr>
</table>

	Element	Description
		households and people in risk of energy poverty by Ministry of Economy. • Households who are identified to be in "material need" and receive a "housing allowance" are automatically eligible vulnerable household for this investment. In 2024, 59 502 households received a "material deprivation" benefit, while the total number of jointly assessed household members was 125 632 people. The entitlement to "housing allowance" was granted to 24 663 as of 31 December 2024. Households, of which there were **14 793 households** that own an apartment or family house. The housing allowance is currently tied to the material deprivation benefit, i.e. it only reaches the **most vulnerable**. • The contribution to be provided exclusively for expenses (loan repayment contribution) corresponding to the flat owner identified as eligible household. This amount is known and usually is based on floor area of the flat in m2. **Foreseeable implementation challenges:** Building managers should be initiators of the application for the call and should assist vulnerable households. One-stop-shops (OSS) could support building managers, inform them about this possibility, promote this investment, therefore, the link with Measure 4 is important The general challenge for the SCF implementation is the implementation definition of vulnerable households based on income threshold. Ministry of Economy plans to automatise the identification of vulnerable households by linking databases on income and energy expenditures. This can improve the implementation processes and address help to the most vulnerable. Definition of energy poverty is under preparation by Ministry of Economy.
1.e	Gender aspect – how gender inequality is addressed (if applicable)	In Slovakia, the share of single males and females being identified as energy poor according to the EU-SILC indicators are very similar, which may point to the fact that there is not a significant gender aspect to this M&Is.
1.f	Identify key success factors and remaining risks and challenges (+	Key success factors: Experience from current "ŠFRB" and other similar schemes, which provide a low-interest loans for apartment buildings renovation, shows a good approach as 75% of apartment buildings are renovated with at least the additional thermal insulation and windows change.

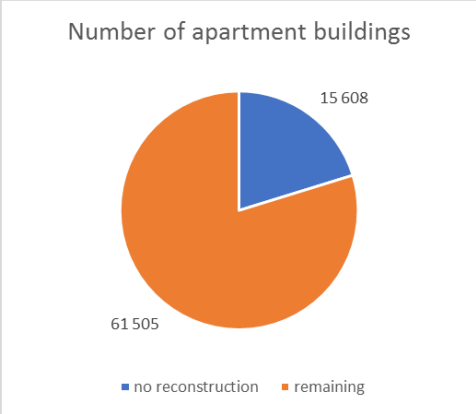
	Element	Description
	provide recommendations on how to overcome/mitigate them)	Challenges: • The challenge is to renovate the remaining 25% of unrenovated apartment buildings. As stated in NECP "the stabilising the downward trend in energy savings achieved through the renovation of apartment buildings will be one of the priorities until 2030". The most common reason is the missing consent between flats owners on renovation due to increase of monthly mandatory payments per flat in the *Operation, Maintenance and Repair Fund* after apartment building renovation. This challenge will be mitigated by this M&Is. • Awareness rising campaign towards apartment buildings renovation should be included in the Measure 4 (Advice, assistance, education), because even with the increased contribution, the total monthly payment is usually lowered by renovation and brings cost savings to apartment owners after the envelope improvement (insulation, window replacement) in comparison with not renovated state. • The legislation or loan contracts adaptation will be needed. The *Operation, Maintenance and Repair Fund* does not normally contain individual sub-accounts of individual owners. Payments from owners are not separated but are in one account. The administrator or community does not bind funds and does not separate the part of the payments of the owners into the part intended for loan repayment. In practice, it is not needed to attribute the amounts of loan payments to vulnerable households in an apartment building. This challenge could be mitigated by administrator's obligation to ensure that a vulnerable household will not pay more in *Operation, Maintenance and Repair Fund* due to renovation loan. This will be compensated to owners' association by part of loan provided to the whole house as a grant.
1.g	Additionality assessment	This is a new grant component implemented in the existing scheme provided by existing ŠFRB scheme. The duplicity of grants should be avoided, so this grant can be provided only as an addition to the loan part of the subsidy scheme that has to be repaid, not to the grant part of ŠFRB subsidy scheme (ŠFRB provides also small part as grant if higher energy performance is achieved).

	Element	Description
2	Alignment of M&Is with DNSH principles in accordance with Article 17 of Regulation (EU) 2020/652 Information on how M&Is included in the component comply with the principle of DNSH within the meaning of Article 17 of Regulation (EU) 2020/852[43]	
Approach 1	Are there any activities and/or assets under this measure or investment aligned with one or several sector-specific annexes?	Yes, the investment is aligned with activity B3.1 (energy efficiency renovation of existing buildings) of the Annex to the technical guidance.
Approach 2	Are there activities and/or assets under this measure or investment not covered by one or several sector-specific annexes and that do not rely on the alternative approaches (see rows below)	Not applicable, approach 1 followed.
Equivalence	Are there activities and/or assets under this measure or investment aligned with the EU Taxonomy (substantial contribution) and DNSH technical screening criteria?	Not applicable, approach 1 followed.
	Is this measure or investment a financial product implemented under the InvestEU Member	Not applicable, approach 1 followed.

[43] European Commission. (5 March 2025). Commission Notice – Technical guidance on applying the 'do no significant harm principle' under the Social Climate Fund Regulation. https://climate.ec.europa.eu/document/download/2f3269ea-fb02-4481-a1d5-3453ba3172ea_en?filename=c_2025_880_part_1_en.pdf.

	Element	Description
	State compartment?	
	Does the M&Is have any significant foreseeable impact on…	
2.a	Climate change mitigation	Compliance with applicable legislation is sufficient to prevent significant harm
2.b	Climate change adaptation	1) For major renovations of individual buildings above 2 000 m^2 of useful floor area or of buildings or building units forming part of the same development totalling at least 2 000 m^2 of useful floor area, a satisfactory summer overheating analysis or demonstration of absence of increase in cooling is performed at project level. 2) For major renovations of individual buildings of at least 5 000 m^2 or building units forming part of the same development totalling at least 5 000 m^2 of useful floor area, situated on land that has been identified at significant risk of flooding that is not adequately protected by national, regional or local flood risk management measures: a) The public authority has commenced the planning process to develop adequate flood mitigation measures protecting the land in question; OR b) the major renovations integrate or are accompanied by adequate flood mitigation measures protecting the individual buildings or the property concerned.
2.c	The sustainable use and protection of water and marine resources	Compliance with applicable legislation is sufficient to prevent significant harm
2.d	The circular economy, including waste prevention and recycling	For: a) major renovations of individual buildings above 2 000 m^2 of useful floor area and of buildings or of building units forming part of the same development totalling above 2 000 m^2 of useful floor area; or b) renovations of individual buildings or of building units above 2 000 m^2 of useful floor area and of buildings or of building units that are part of the same development totalling above 2 000 m^2 of useful floor area; the following criteria apply: i. For (a): prior to carrying out any works on buildings, a pre-demolition audit or prerenovation audit is completed. The audit is based on applicable national or local methodologies. Alternatively, it uses Annex F of the EU Construction and Demolition Waste Protocol. ii. For (a) and (b): at least 70% of the non-hazardous construction and demolition waste generated on the construction site (by mass in kilogrammes), excluding naturally occurring material listed under category 17 05 04 in the European List of Waste

	Element	Description
		(Decision 2000/532/EC), is prepared for re-use or recycled. Backfilling is not considered preparing for re-use or recycling.
2.e	Pollution prevention and control to air, water, or land	Compliance with applicable legislation is sufficient to prevent significant harm
2.f	The protection and restoration of biodiversity and ecosystems	Compliance with applicable legislation is sufficient to prevent significant harm
3	**Target and milestones: implementation timeline**	
3.a	why the specific milestone(s) or target(s) was(were) chosen;	**Target**: Support of approximately 11 600 flat owners in apartment buildings with investment about EUR 12 000 per flat. Justification: ŠU SR (Census 2021): There are 77 113 apartment buildings (address points) in Slovakia, which contain **1 025 735 apartments (average 13.3 flats/building)**. 15 608 buildings (address points) are not renovated, that is 207 613 flats. Assuming 5.6 % of most vulnerable households from the whole population affected by ETS2 (DLV 2, 60 EUR/tCO_2) the number of flats in non-renovated apartment buildings occupied by the most vulnerable households is approximately **11 626 flats**. Note: It is assumed that 25% of apartment buildings are not renovated mainly due to the financial situation of the owners. The assumption that only 5.6% are vulnerable groups could be underestimated. The estimate of the Ministry of Transport is the share of vulnerable groups in this housing stock approximately 30%. The overall financial burden of the M&Is will be higher. However, not all 30% are impacted by ETS2 and will renovate houses until 2032. Based on data from the Ministry of Transport, the renovation cost is EUR 6 700 – 14 400, that is in an average EUR 10 000 per apartment. However, for smaller apartment buildings this amount will be closer to a higher amount than to the average. The investment cost is assumed to be about EUR 12 000 per flat.

	Element	Description
		 *Source: ŠÚ SR, SOBD 2021, ENBEE* According to Law 443/2010 Coll. the average floor area of one flat for subsidies schemes is considered 60 m^2 of net floor area for the common standard.
3.b	what the milestone(s) or target(s) is(are) measuring;	**The measurable targets are**: The number of renovated apartment buildings, the number of supported vulnerable households (decreased energy poverty), the final energy savings and energy costs savings. **Milestones:** 2026/2027: Scheme launched (or 2027/2028 depending on the ETS2 introduction), legislative Act implementation, calls preparation 2028–2032: Calls, Number of supported vulnerable households (2 320 flat owners per year)
3.c	how this will be measured, what methodology and source will be used, and how the proper achievement of the milestone(s) or target(s) will be objectively verified;	**Methodology:** Milestones and targets will be measured by key performance indicators: number of buildings having undergone renovation, the number of supported vulnerable households (decreased energy poverty), the savings in annual primary and final energy verified by EPC issued before and after renovation.
3.d	what is the baseline (starting point) and what is the level or specific point to be reached; (Quantified value of the targets)	**Baseline**: There are no relevant data about the building stock energy performance because EPCs are issued mostly for new or renovated buildings and the worst performing buildings for EPBD are not defined yet. The current state is described in 3.a. The number of flats in non-renovated apartment buildings occupied by vulnerable households affected by ETS2 is approximately 11 626 flats.

	Element	Description
		The worst performing residential buildings should be defined in National renovation plan (EPBD Art. 3,9). If not, non-renovated apartment buildings constructed before 1983 without any renovation could be regarded as the worst performing buildings. **Target**: Contribution by grants to loan repayment for 11 600 flat owners.
3.e	by when it will be reached (by quarter and year)	The work will start of 1 January 2027 with the first year focusing on legal acts implementation and calls preparation. The targets are expected to be reached by 31 December 2032, so a period of 6 years is assumed.
3.f	who and which institution will be in charge of implementing, measuring and reporting.	**Implementing authority:** The State Housing Development Fund (ŠFRB) will be in charge of implementing, measuring and reporting.
3.g	Where applicable, a timeline for gradual reduction of support	N/A
4	**M&Is Implementation and Monitoring**	
4.a	Who and which institutions will be in charge of implementation, measuring and reporting	**Implementing authority:** The State Housing Development Fund (ŠFRB) will be in charge of implementing, measuring and reporting.
4.b	Determine key performance indicators	This investment will contribute to the following **indicators**: • increase the number of buildings/floor area of apartment buildings having undergone renovation, • reduction of number of households in energy poverty, • reduction in greenhouse gas emissions, • savings in annual primary and final energy consumption, confirmed for individual apartment building by EPC before and after renovation. The relevant indicator for **indicative milestones and targets** for this investment is the number of supported vulnerable households living in not renovated apartment buildings which undergone renovation.
4.c	Describe rules to monitor the achievement of the objectives	The calls will be launched, and the successful applicants will be monitored and will have to report the savings in annual primary and final energy based on EPC issued before and after

<table>
<tr><th></th><th>Element</th><th>Description</th></tr>
<tr><td></td><td></td><td>renovation and potentially also report measured energy before and after renovation.</td></tr>
<tr><td>5</td><td colspan="2">Financing and costs</td></tr>
<tr><td>5.a</td><td>Methodology, underlying assumptions and their justification</td><td>Assumptions for costs estimation:
Average costs of renovation of apartment building per flat is assumed: EUR 12 000 per flat (this can be less for bigger apartment buildings and more for smaller apartment buildings)
Number of supported flats is 11 600 (See also 3.a)
In poor regions, vulnerable households are assumed to be concentrated in apartment buildings that cannot reach an agreement on renovation. Assuming 5 vulnerable households in one apartment building, 11 600 apartments could represent 2 320 apartment building flat associations that need advice, 464 per year (related to Measure 4 advice and assistance)
Unit costs reflect the government's intention to help the widest possible range of beneficiaries, while following the energy efficiency first principle.</td></tr>
<tr><td>5.b</td><td>Total cost of the M&Is</td><td>The total cost of the investment will be EUR 139.3 million for 11 600 flat owners in renovated apartment buildings during the SCF period of 6 years.</td></tr>
<tr><td>5.c</td><td>Comprehensive timetable within which the costs are to be incurred</td><td>The work will start of 1 January 2027 with the first year focusing on legislation implementation and calls preparation.

<table>
<tr><th>Year</th><th>Number of supported flat owners in renovated apartment buildings</th><th>Costs (grant) per unit EUR/flat</th><th>Total costs per year in million EUR</th></tr>
<tr><td>2027</td><td>Acts and calls preparation</td><td></td><td>0.1</td></tr>
<tr><td>2028</td><td>2 320</td><td>12 000</td><td>27.84</td></tr>
<tr><td>2029</td><td>2 320</td><td>12 000</td><td>27.84</td></tr>
<tr><td>2030</td><td>2 320</td><td>12 000</td><td>27.84</td></tr>
<tr><td>2031</td><td>2 320</td><td>12 000</td><td>27.84</td></tr>
<tr><td>2032</td><td>2 320</td><td>12 000</td><td>27.84</td></tr>
<tr><td>Total</td><td>11 600</td><td></td><td>139.3</td></tr>
</table></td></tr>
<tr><td>5.d</td><td>Info on national contribution on total cost of M&Is</td><td>Co-financing 25% from national funds</td></tr>
<tr><td>5.e</td><td>Info on additional financing from</td><td>The combination with subsidies for low interest rate loans provided by ŠFRB.</td></tr>
</table>

	Element	Description
	other Union instruments that could be applicable to the M&Is	
5.f	Info on envisioned financing from private sources	None.
5.g	Justification on plausibility and responsibility of estimated costs	The costs estimation is based on experience from ŠFRB
6	**In the case of M&Is to increase uptake of zero and low-emission mobility and transport, criteria for identifying eligible beneficiaries**	
6.a	Time limit for the M&Is and a justification on the basis of quantitative and qualitative explanation on how the M&Is counteracts increases in price of transport and heating fuel	N/A

Table 0-3 Investment 3: Renovation of social housing in apartment buildings and renovation of social services facilities managed by local governments and non-public providers

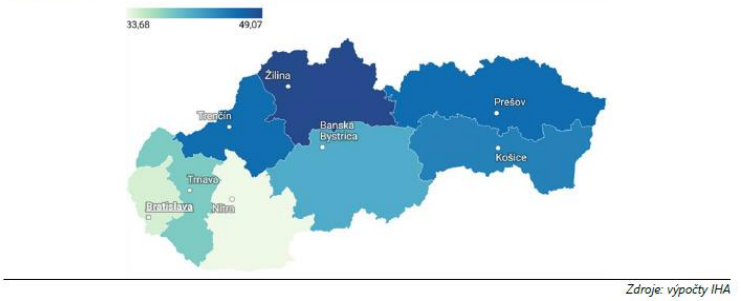
	Targeting analysis	
	Element	**Description**
1.	General description of the M&Is *A detailed description of M&Is based on desk research and information gathered from stakeholders*	
1.a	The nature, size and type of the M&Is- including if it is new or existing	**Nature**: The aim of this investment is a deep renovation of social housing in apartment buildings and social services facilities managed by municipalities and non-public providers (additional insulation, windows change, replacement of heating systems and RES integration, BACS, smart metering, e.g. linked to electricity prepayment) occupied by vulnerable households. This investment can include energy renovation with the reconstruction of an existing social housing.

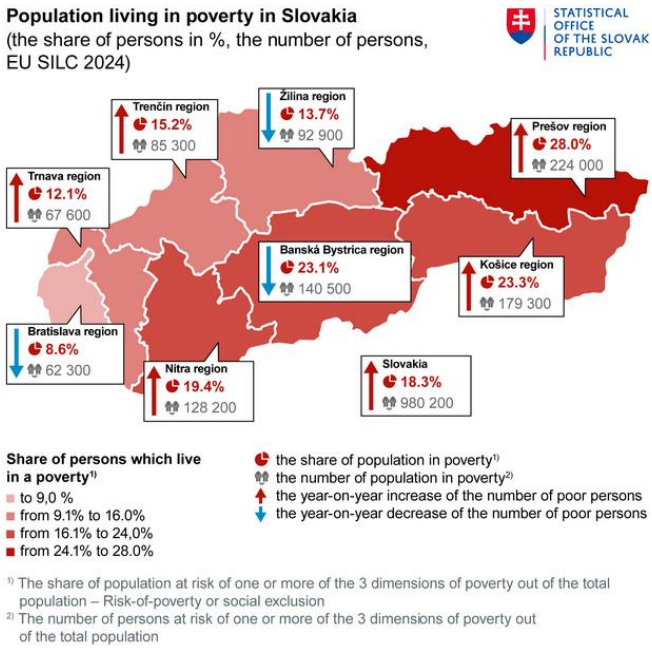
		The goal is conducting deep renovations to significantly enhance the energy performance of buildings, specifically, improvement of envelope as the first step (thermal insulation of walls, roof, floor and change of windows) and followed by the replacement of heating systems (after the lifespan). and RES and control systems implementation if relevant. The focus is on the worst-performing buildings (EPBD Art. 3, and 9). The goal of renovation itself should be the deep renovation, but if reasonable also in step-by-step, if steps are proofed by building renovation passport (BRP). Holistic approach is needed (envelope and technical systems) to ensure the energy costs decrease. The construction of small community heating systems based on RES for group of social housing or social services buildings can be included operated by local governments, including support for connection to smart grids and district heating networks as a part of deep renovation (change of heating system) if relevant. Costs can include basic infrastructure with some degree of flexibility for **unexpected investments** likely to be in the apartment buildings for social housing, synergy with transport poverty, barrier-free. In this investment, it is necessary to distinguish between "social housing" and “social service facilities” which are managed by two different Ministries. Social housing in the Slovak Republic are buildings designated for vulnerable households, low-income households. In Slovakia, up to 91 percent of apartments are privately owned. The rental housing does not exist, except the social housing. The public rental sector in Slovakia is therefore identical to social housing. This is different from Western European countries, where the public rental sector is not specifically designated for certain income categories. Social service facilities are a wide range of types of facilities – dormitories, shelters, halfway houses, facilities for seniors, etc. under the jurisdiction of the Ministry of Labour, Social Affairs and Family and Ministry of Health of the Slovak Republic. There are several existing support mechanisms for social service facilities e.g. **Recovery and resilience plan:** Component 1 - Renewable Energy and Energy Infrastructure - this component supported renewable energy for companies in the form of grants.

		Investment: Expansion of community social care capacities - these are investments mainly in the construction of new social services conditioned by dependency (community-type residential facilities, outpatient facilities and low-capacity social and health care facilities) - support was **not intended for existing Social crisis intervention services (SSKI) facilities.** Component 19: RePowerEU - an additional chapter of the recovery plan, for additional funds for new green measures. The chapter includes six new reforms, and eight new investments worth a total of EUR 403 million. REPowerEU also focuses on the renovation and management of buildings. Supporting the renovation of households at risk of energy poverty social service facilities owned and managed by non-public social service providers. Programme Slovakia, Priority: 2P1. Energy efficiency and decarbonisation Specific objective RSO2.1 Supporting energy efficiency and reducing greenhouse gas emissions Priority: 4P5. Active inclusion and accessible services Specific objective RSO 4.3 Supporting the socio-economic inclusion of marginalised communities, low-income households and disadvantaged groups, including people with special needs, through integrated actions including housing and social services Measures under priority 4P5 are implemented through the integrated territorial investment mechanism, with the use of funds decided by the Partnership Councils (VUC) and Cooperation Councils (Regional Cities), which makes it very **difficult for non-public providers of social services** to obtain NFP. **Type**: Building renovation **Form**: The situation of local governments and non-public providers require suitable **combination of grants and loans**. **New or existing:** The State Housing Development Fund (ŠFRB) currently finances by loans the renovation of social housing and selected types of social service facilities: supported housing facility, facility for seniors, nursing service facility, social services home and specialised facility according to a special regulation.

		ŠFRB **does not provide grants** but under certain conditions provides an incentive element – forgiveness of part of the loan (max. 30% of the loan amount) upon meeting the energy performance conditions. There are several support mechanisms for public buildings, but the renovation of social service facilities owned or managed by non-public providers of social services has fallen out of most of grant support mechanisms aimed at the energy renovation of buildings and the implementation of M&Is aimed at increasing the energy efficiency of buildings, despite the fact that non-public providers provide up to 45% of the total number of social services. These buildings are not public buildings, they are mostly owned by social service providers. Additionality to existing schemes: Deep renovation, focus on the worst-performing buildings, complementation of actors (non-profit organisations/social enterprises, charities), focusing on crisis intervention services, for social housing managed by municipalities include both, energy renovation and structural modifications to existing apartments, if they are, for example, "vacated", thus enabling their reuse. Additionality to ŠFRB: a possibility to provide grants in the form of forgiving part of the loan in a higher amount (50% up to 100% for energy performance improvement related part of the loan).
1.b	Objective of the M&Is, defining target groups, results and impacts, including on reducing fossil fuel dependency	**Objective of the investment:** The objective is the increase of energy efficiency and reduction of fossil-fuel use by renovation of worst performing buildings, where the energy costs will be visible. Worst performing buildings could be determined based on definition in National Building Renovation Plan (EPBD Art. 3, 9) **Target groups:** Vulnerable households identified by the national definition in apartment buildings for social housing and social services facilities owned by local governments (municipalities and higher territorial administrative units) or non-profit organisations/social enterprises, charities. Among social service facilities, we recommend focusing on crisis intervention services and non-public providers.

		Social housing is entirely within the competence of the Ministry of Transport of the Slovak Republic and consists of the public rental sector (according to Census 2021, approximately 55 000 apartments). **Social crisis intervention services** (SSKI) aimed at helping individuals and families at risk of poverty and social exclusion. In terms of types, these are SSKI provided in residential facilities (shelter, halfway house, emergency housing facility), by providing shelter/overnight accommodation (dormitory) and social services provided in an outpatient or field form (field crisis intervention service, low-threshold day centre, integration centre, community centre and low-threshold social service for children and families). SSKI beneficiaries fall into the group of persons at risk of poverty and social exclusion, and will also form a core group within the group of persons at risk of energy and transport poverty. Distribution of the number of SSKI by provider as of December 31 2023: o total number of SSKI - 880 / capacity – 15 242 places o number of SSKIs established or founded by the municipality - 491 / capacity – 8 886 places • number of SSKIs operated by **non-public service providers** - 361/ capacity 5 929 places, which represents 41% of the total number of registered SSKIs (see Analysis of the provision of social services in the Slovak Republic, p. 112) **Results**: Higher energy efficiency, reduced fossil fuel use and lower energy bills for vulnerable households living in social housing. The result will be also an expansion of the offer of social housing in case of renovation and rebuilding of existing social housing. The SSKI are intended for clients who are often without financial means. Some services are therefore free of charge, or clients pay minimal amounts for services. In a shelter, this may be, for example, EUR 2 per person/day. The payment for social services does not include separate payment for energy. Energy prices are only part of the economically justified costs for services. **Impact**: The SSKI facilities are in poor technical condition and need reconstruction, including energy renovation. However, non-public providers of social services are excluded from existing **grant** schemes.

		The social housing in undersized in Slovakia and many building are in the original state. If SCP M&Is are directed towards the energy renovation of social housing and SSKI facilities, they have the potential to reach a significant proportion of people most at risk of poverty and social exclusion, and this will not be a support that will bring long-term energy savings, which will have a positive impact on the costs of operating the aforementioned services. Renovation will improve the conditions of the indoor environment and enable investments in improvement of the living conditions in facilities for vulnerable households. For long lasting impact by decrease in energy consumption and CO_2 emissions it is necessary to follow the principle of "energy efficiency first" in logically consecutive steps of the M&Is listed in the building renovation passport. Separate investments in components (e.g. only windows) or only the technical systems change without thermal insulation of the envelope are not suitable for worse performing buildings. The installation of some systems is only possible after reducing the energy needs (RES, heat pumps). The potential for real cost savings a comprehensive advice based on holistic building assessment including the DHW should be proofed by EPC or in building renovation passport in case of staged deep renovation. Focus should be on energy costs decrease, or decrease in the amount of fossil fuels consumed not only primary energy decrease . The impact can be different in different climate localities. *Graf 12: Úspory dosiahnuté celkovou obnovou na modelovom príklade v jednotlivých krajoch (v MWh/rok)[24]*  Source: IHA
1.c	How the M&Is addresses effects	Data about the character of social housing and social service facilities is missing.

	of ETS 2 on vulnerable groups	A rough estimation is mentioned in the Long-Term Renovation Strategy (LTRS (2020) and the 2011 Census (SODB 2011). In addition to apartments in apartment buildings and family houses, apartments are also located in other buildings (church institutions, social service houses, retirement homes and others), of which there are 13 020, which is a 3.41% share. The number of apartments in these buildings amounts to 54 497 apartments. These figures are the only available data, although there has likely been significant change since 2011.Social housing and social service facilities are important target in Slovakia. In 2024, 18.3% of the population in Slovakia, which represents more than 980 000 people, were at risk of poverty or social exclusion. The number and share of people at risk of poverty or social exclusion increased by 37 000 people year-on-year, the increase was visible for the fourth year in a row. For comparison, in 2023, 17.6% of the population (943 000 people) were at risk of poverty or social exclusion, which means that their share increased by 0.7 percentage points (pp) year-on-year.  *Source: Statistical Office of the Slovak Republic, Results of the survey on income and living conditions.* The most vulnerable groups in terms of poverty and social exclusion: • Members of marginalised Roma communities (MRK). In 2020, 87% of people from MRK lived below the poverty line (calculated from the regular EU SILC survey), compared to 11% in the total population. The

situation is even more critical for children - in MRK, 91% of them lived in households with an income below the poverty line; in the total population, this was 17% of children.

- Number of homeless people (LBD) - In 2021, the Statistical Office of the Slovak Republic counted 71 076 homeless people. (Source: Analysis of the provision of social services in the Slovak Republic, p. 79.

Other relevant statistics:

- 59 502 households received a material deprivation benefit, while the total number of jointly assessed household members was 125 632 people.
- The entitlement to housing allowance was granted to 24 663 as of 31 December 2024, households, of which there were:
  - **households that own an apartment or family house – 14 793**
  - households that are tenants of an apartment, family house or living room – 7 115
  - households with lifetime right of use - 944
  - households living in a social service facility – 1 811

The housing allowance is currently tied to the material deprivation benefit, i.e. it only reaches **the most vulnerable**.

Homeless people, or people at risk of homelessness , and members of the MRC are the largest groups to whom social crisis intervention services (SSKI) are provided. Since they generally do not have stable and official housing, they are excluded from direct support tied to housing, e.g. for energy payments, etc.

Social crisis intervention services (SSKI)

In terms of types of social service facilities, the most suitable for SCF are SSKI providing housing in residential facilities (shelter, halfway house, emergency housing facility), providing shelter/overnight accommodation (dormitory) and social services provided in an outpatient or field form (field crisis intervention service, low-threshold day centre, integration centre, community centre and low-threshold social service for children and families).

SSKI beneficiaries fall into the group of persons at risk of poverty and social exclusion, and will also form a core group

within the group of persons at risk of energy and transport poverty.

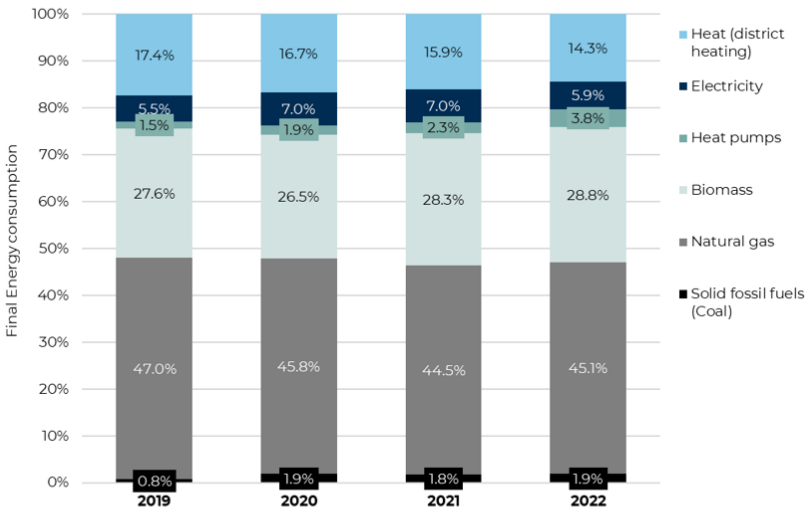
Distribution of the number of SSKI by provider as of December 31, 2023:

- total number of SSKI - 880 / capacity – 15 242 places
- number of SSKIs established or founded by the municipality - 491 / capacity – 8 886 places
- number of SSKIs operated by non-public service providers - 361/ capacity 5 929 places, which represents 41% of the total number of registered SSKIs (see Analysis of the provision of social services in the Slovak Republic, p. 112)

The total capacity in residential crisis intervention facilities as of December 31, 2023, according to data from the IS SoS of the Ministry of Social Affairs and Health of the Slovak Republic, was 3 611 places, where social services were provided to up to 4 762 recipients, of which 3 414 recipients in shelters, 1 073 recipients in emergency housing facilities and at least 276 recipients in halfway houses.

It is clear that a significant proportion of households will be exposed to gas price increases. The role of natural gas in Slovakia is significant, it contributed 45.1% to space heating energy use in 2022 (Fig. 1-3 in DLV 2). Slovakia has the second most concentrated gas infrastructure in terms of gas pipelines developed in residential areas in the EU.

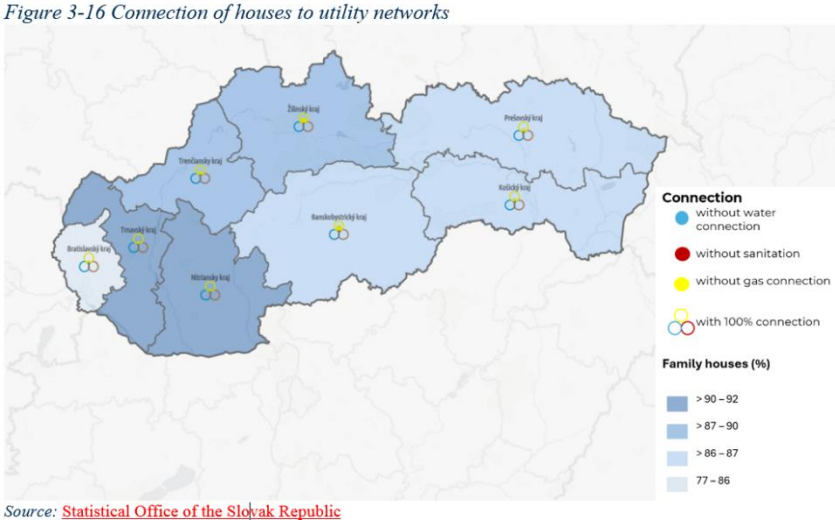
Figure 1-3 Household space heating energy use (2019–2022)



Source: EUROSTAT [nrg_d_hhq]

Note: A small residual of heating oil (0.2% in every year) is not shown in the graph.

Source: DLV2, Figure 1-3

		Figure 3-16 depicts that 66% of households use gas for heating and hot-water preparation, 21% of households use solid fuels and 5% uses electricity. *Figure 3-16 Connection of houses to utility networks*  *Source:* Statistical Office of the Slovak Republic Source: DLV2, Figure 3-16 **How the investment addresses effects of ETS 2 on vulnerable groups** The investment supports the improvement of the energy efficiency of social housing and social services facilities with the aim of achieving significant energy savings, decrease of energy costs and reduction of greenhouse gas emissions with long-lasting impact. Other impacts are thermal comfort improvement, reduction of health risks due to indoor humidity, avoiding mould growth, reduction of noise by window replacement. Decrease of energy needs for heating can be significant, depending on the original state of the building.
1.d	Implementation – including how and at which administration level and incorporate recommendations for addressing foreseeable implementation challenges	The implementation will be based on the existing long-term national program governed by Ministry of Transport SR in line with the approved National Housing Policy. This investment would require utilisation of the existing structure of the ŠFRB. For more than 10 years, the ŠFRB has been providing preferential loans for the renovation of social service facilities to all types of applicants, including non-public providers. ŠFRB does not provide grants. In the case of non-public providers who do not provide social services for the purpose of making a profit, the loans are not a relevant support, because they are not able to repay such loans. ŠFRB is therefore used mostly by local governments. Combination of grant with loan depending on the situation is more suitable for this target group. The conditions for the identification of recipients:

		• social housing buildings is housing designated in the Slovak Republic for vulnerable households, low-income households. • households living in social service facilities can be assumed to be amongst the most vulnerable. • households identified as in "material deprivation" and receiving a "housing allowance" could be the first eligible recipients. Identification of the worst-performing buildings should be based on the definition in the National Building Renovation Plan (EPBD Art. 3 and 9). • exclusion of repeated support from existing support schemes • the goal of renovation itself should be the deep renovation, if reasonable also in step-by-step (e.g. heating system with sufficient residual lifespan should not be changed). The risk of hygienic defects must be checked and the steps must be proofed by mandatory Building Renovation Passport (BRP). • support should be conditional on a correct estimate of potential cost savings by EPC before and after renovation. This investment should be implemented together with Measure 4 (Advice, professional assistance) **Foreseeable implementation challenges:** • Standard social housing apartment buildings are dedicated also to low-income households. Preferably focusing on crisis intervention services could address the most vulnerable, however all types of social housing and social services facilities can be included • The municipalities need to financially support the project preparation for the renovation • Missing definition of worst performing buildings according to EPBD Art. 3 and 9. The buildings constructed before 1983 without any renovation could be considered as the worst performing buildings. • In the case of social housing providers, it is important to take into account the ownership and how will it be guaranteed that the investment in social housing is not reflected in the rental price and that the purpose of use will not change in the future. Until now, municipalities have not been allowed to pass on the costs of renovation to the rent in social housing, but this will be possible from 1 January 2025 (amendment to the law)
1.e	Gender aspect – how gender inequality is	In the Slovak Republic, it has long been true that households with children are significantly more at risk of poverty than households without children. In 2024, one fifth of households

	addressed (if applicable)	with dependent children (20.4% of people) faced poverty, and slightly more than 15% of people living in households without children. Among households with children, single-parent families (1 parent/adult with 1 or more children) were most at risk, with almost 38% of people facing poverty. The single-parents are mostly women. Among households without children, single-person households of women aged 65 and over were most at risk (30.3%).
1.f	Identify key success factors and remaining risks and challenges (+ provide recommendations on how to overcome/mitigate them)	The current support from the ŠFRB has not been widely used by municipalities and non-public social service facilities due to difficulty to repay loans. **Risks and challenges**: - The main risk is that the interest will be low as the benefits could not be well understood by target group. - It is important that this investment is implemented together with Measure 4 (Advice, professional assistance combining one-stop-shops according to the EPBD and EED. - Need for pre-renovation financing
1.g	Additionality assessment	Regarding social service facilities, it is important to state that there are broadly defined similar measures, mostly for self-help construction of individual houses in rural areas by marginalised Roma communities with only roughly EUR 40 million allocation in the Priority Objective 4 (PO4). A specific measure RSO4.3: 'Promoting the socio-economic inclusion of marginalised communities, low-income households and disadvantaged groups, including persons with special needs, through integrated actions including housing and social services ' has EUR 99 million total allocation for 2021–2027. Non-public providers of social service capacity in Slovakia are often not eligible applicants for public building renovation schemes from the Slovakia Programme (ESIF), the Renovation Plan or the Environmental Fund. To ensure additionality and avoid overlapping, this SCF investment introduces complementary support, higher **grant** rates, higher ambition level and prioritising the worst-performing buildings according to EPBD or the first-time renovations or specific building types. The ŠFRB has been providing social housing and social service facilities with loans for more than 10 years. The additionality is extension to combination of grants and loans, the focus on

		social housing and social services facilities, deep renovation, worst-performing buildings, complementation of actors (non-profit organisations/social enterprises, charities who are excluded from most of existing grant support schemes), emergency housing facilities, temporary accommodation, lower-standard apartments.
2	Alignment of M&Is with DNSH principles in accordance with Article 17 of Regulation (EU) 2020/652 *Information on how M&Is included in the component comply with the principle of DNSH within the meaning of Article 17 of Regulation (EU) 2020/852* *https://climate.ec.europa.eu/document/download/2f3269ea-fb02-4481-a1d5-3453ba3172ea_en?filename=c_2025_880_part_1_en.pdf*	
Approach 1	Are there any activities and/or assets under this measure or investment aligned with one or several sector-specific annexes?	Yes, the investment is aligned with activity B3.1 (energy efficiency renovation of existing buildings), B5 (installation, maintenance and repair of instruments and devices for measuring, regulating and controlling the energy performance of buildings), B6 (installation, maintenance and repair of renewable energy equipment), and B9 (connections to district heating and cooling networks) of the Annex to the technical guidance.
Approach 2	Are there activities and/or assets under this measure or investment not covered by one or several sector-specific annexes and that do not rely on the alternative approaches (see rows below)	Not applicable, approach 1 followed.
Equivalence	Are there activities and/or assets under this measure or investment aligned with the EU Taxonomy (substantial contribution) and DNSH technical screening criteria?	Not applicable, approach 1 followed.

	Is this measure or investment a financial product implemented under the InvestEU Member State compartment?	Not applicable, approach 1 followed.
	Does the M&Is have any significant foreseeable impact on…	
2.a	Climate change mitigation	In case of a connection to a district heating or cooling system, the system: • Can be categorised as efficient district heating or cooling system in line with Article 26 of the Energy Efficiency Directive or • Meets the requirements stipulated in Article 26(5) of the Energy Efficiency Directive and the connection does not result in increased consumption of fossil fuels
2.b	Climate change adaptation	1) For major renovations of individual buildings above 2000 m^2 of useful floor area or of buildings or building units forming part of the same development totalling at least 2000 m^2 of useful floor area, a satisfactory summer overheating analysis or demonstration of absence of increase in cooling is performed at project level. 2) For major renovations of individual buildings of at least 5000 m^2 or building units forming part of the same development totalling at least 5000 m^2 of useful floor area, situated on land that has been identified at significant risk of flooding that is not adequately protected by national, regional or local flood risk management measures: a) The public authority has commenced the planning process to develop adequate flood mitigation measures protecting the land in question; OR b) the major renovations integrate or are accompanied by adequate flood mitigation measures protecting the individual buildings or the property concerned.
2.c	The sustainable use and protection of water and marine resources	Compliance with applicable legislation is sufficient to prevent significant harm
2.d	The circular economy, including waste prevention and recycling	For: a) major renovations of individual buildings above 2000 m^2 of useful floor area and of buildings or of building units forming part of the same development totalling above 2000 m^2 of useful floor area; or b) renovations of individual buildings or of building units above 2000 m^2 of useful floor area and of buildings or of building units that are part of the same development totalling above 2000 m^2 of useful floor area; the following criteria apply: i. For (a): prior to carrying out any

		works on buildings, a pre-demolition audit or prerenovation audit is completed. The audit is based on applicable national or local methodologies. Alternatively, it uses Annex F of the EU Construction and Demolition Waste Protocol. ii. For (a) and (b): at least 70% of the non-hazardous construction and demolition waste generated on the construction site (by mass in kilogrammes), excluding naturally occurring material listed under category 17 05 04 in the European List of Waste (Decision 2000/532/EC), is prepared for re-use or recycled. Backfilling is not considered preparing for re-use or recycling.
2.e	Pollution prevention and control to air, water, or land	Compliance with applicable legislation is sufficient to prevent significant harm
2.f	The protection and restoration of biodiversity and ecosystems	Compliance with applicable legislation is sufficient to prevent significant harm
3	Target and milestones: implementation timeline	
3.a	why the specific milestone(s) or target(s) was(were) chosen;	**Target**: Renovation costs of approximately: • social housing - apartment buildings owned by municipalities EUR 54 million per year • Social services facilities EUR 22 million per year The number of renovated buildings is difficult to estimate, because of different size (from small buildings similar to family houses to large multi-apartment buildings). The statistical data about the size of social housing and social service facilities is not available. Social housing is not mentioned in the NECP (draft Oct.2024). In the LTRS (2020) are data SODB 2011: In addition to apartments in apartment buildings and family houses, apartments are also located in other buildings (church institutions, social service houses, retirement homes and others), of which there are 13 020, which is a 3.41% share. The number of apartments in these buildings is **54 497 apartments**. Of the housing stock, the largest extent of housing construction took place between 1960 and 1983. Their age is more than 30 years, while construction carried out up to 1983 (inclusive) achieved very low thermal properties resulting from the applicable requirements of the generally established level and technology of construction and knowledge.
3.b	what the milestone(s) or target(s) is(are) measuring;	**Target**: The number of improved buildings depends on their size. The target could be expressed in gross floor area in m2 of renovated buildings as reported in EPC.

		Milestones: 2026/2027: Scheme launched (or 2027/2028 depending on the ETS2 introduction), calls preparation in collaboration with stakeholders, capacity building (Measure 4) 2028–2032: Calls, floor area of renovated buildings 472 500 m^2 of gross floor area per year
3.c	how this will be measured, what methodology and source will be used, and how the proper achievement of the milestone(s) or target(s) will be objectively verified;	**Methodology:** milestones and targets will be measured by key performance indicators: floor area of buildings in buildings having undergone renovation financed under SCF, the savings in annual primary and final energy will be verified by EPC issued before and after renovation.
3.d	what is the baseline (starting point) and what is the level or specific point to be reached; (Quantified value of the targets)	**Baseline**: Support by ŠFRB: The size of support for renovation loans from ŠFRB for **social housing/municipal** applicant: since 2006 - 28 applications, loan granted EUR 7 353 246.51, 840 units (2024 - 4 applications, 88 apartments, loan granted EUR 1 622 810). In the case of **social service facilities**, loans from ŠFRB can be obtained by both municipalities/higher administrative units (i.e. public providers of social services) and other legal entities (non-public providers of social services, i.e. those who are not included in the system according to Act No. 448/2008 Coll.). However, the condition is that the technical and capacity parameters in accordance with Act No. 448/2008 Coll. are met, the confirmation is issued by the Ministry of Social Affairs and Employment of the Slovak Republic (https://www.employment.gov.sk/sk/rodina-socialna-pomoc/socialne-sluzby/podpora-zariadeni-socialnych-sluzieb-zo-statneho-fondu-rozvoja-byvania/). Construction and renovation of **social service facilities:** Size of loan support - since 2005 - 49 applications, loan granted EUR 48 309 014.28, supported beds 1 840 beds The data are not available on renovation for the entire period, but for example support was: in 2023 – EUR 1 790 030 – 2 social service facilities – 362 beds; in 2024 – EUR 1 557 600 – 1 social service facility – 40 beds).

		The renovation of social housing is budgeted in the ŠFRB within the renovation as such, where a budget of EUR 172 million is proposed (the entire renovation for everything). The proposal for the renovation of social housing is based on the submitted applications; in case of higher interest, the ŠFRB still has unallocated budget funds available. Regarding the **social service facilities**: The baseline are the above mentioned existing schemes and several supporting projects (see 1.a), but it is difficult for non-public providers of social services to receive support. The ŠFRB, who will operate the scheme, has been providing social housing and social services facilities with loans for more than 10 years. ŠFRB does not provide grants. There are not relevant data about the social housing energy performance because EPCs are issued mostly for new or renovated buildings and the worst performing buildings for EPBD are not defined yet. Not renovated buildings constructed before 1983 could be regarded as the worst performing buildings. In 2024, 18.3% of the population in Slovakia, which represents more than 980 000 people, were at risk of poverty or social exclusion. The number and share of people at risk of poverty or social exclusion increased by 37 000 people year-on-year, the increase was visible for the fourth year in a row. For comparison, in 2023, 17.6% of the population (943 000 people) were at risk of poverty or social exclusion, which means that their share increased by 0.7 percentage points (pp) year-on-year. Source: Statistical Office of the Slovak Republic, Results of the survey on income and living conditions **Target**: The renovation of approximately of 2 362 500 m2 of gross floor area of **social houses** (own by municipalities) or social services facilities and as a consequence decrease of energy costs for vulnerable households, people at risk of poverty or social exclusion and improvement of indoor environment.
3.e	by when it will be reached (by quarter and year)	The work will start of 1 January 2027 (1Q 2027). The first year will be aimed at calls preparation. In the same starting year the capacity building should take place. The targets are expected to be reached by 31 December 2032 (4Q 2032) so a period of 6 years is assumed for implementation.
3.f	who and which institution will be	It is suggested that the SCF would build on established experience of the Ministry of Transport. From 1999, the

	in charge of implementing, measuring and reporting.	Ministry of Transport has directly supported municipalities in financing rental housing development through the Programme of Housing Development. In this scheme it is possible for municipalities to combine state subsidy with the long-term low interest loan from the State Housing Development Fund (ŠFRB). The subsidies are provided by the Ministry of Transport the Slovak Republic according to the Act No. 443/2010 Coll. on Subsidies for Housing Development and on Social Housing as amended. **Implementing authority:** The existing structure of the State Housing Development Fund (ŠFRB) subordinate to the Ministry of Transport of the Slovak Republic will be in charge of implementing, measuring and reporting.
3.g	Where applicable, a timeline for gradual reduction of support	*Not applicable*
4	M&Is Implementation and Monitoring	
4.a	Who and which institutions will be in charge of implementation, measuring and reporting	**Implementing authority:** State Housing Development Fund (ŠFRB) will be in charge of implementing, measuring and reporting.
4. b	Determine key performance indicators	This investment will contribute to the following **indicators**: • increase the number of buildings/floor area of buildings having undergone deep renovation or other energy renovation, • reduction of number of households in energy poverty, • reduction in greenhouse gas emissions, • savings in annual primary and final energy consumption, confirmed for individual buildings by EPC before and after renovation. Relevant **indicator for indicative milestones and targets** for this investment is the gross floor area in m^2, as reported in the EPC, of buildings having undergone renovation. The floor area can be recalculated to the number of flats based on standard size of flat according to legislation.
4.c	Describe rules to monitor the achievement of the objectives	The calls will be launched and the successful applicants will be monitored and will have to report the floor area of renovated building, savings in annual primary and final energy based on EPC issued before and after renovation..
5	Financing and costs	
5.a	Methodology, underlying	Assumptions for costs estimation:

	assumptions and their justification	• the calculation is per m^2 of gross floor area of renovated buildings because the size of buildings varies greatly, from big multi apartment social housing buildings in the cities to small family-like houses facilities in small villages. • weighted average family house dwelling floor area according to 2021 Census of Population, Apartments and Houses, recalculated from a net floor area (Census) to gross floor area as reported in the EPC is 189 m^2 • based on data from "Obnov dom" scheme the average costs for renovation of family house is assumed 160 EUR /m2 of gross floor area (for insulation and windows change the average cost is 143 EUR/m^2, for deep renovation including systems is 170 EUR/m^2 in prices 2023–2024) 2500 buildings of size of one family house renovated per year is 472 500 m^2/year For apartment buildings, an average ratio of 1.32[44] between m^2 of gross floor area of the building and m^2 of the net useful floor area of one apartment is assumed. Estimated number of applicants (entities): Yearly renovated floor area of 472 500 m^2 corresponds to 2 500 average family houses (189 m^2) or to 236 bigger apartment buildings (2000 m^2). The number of applicants (entities) is assumed 1 500. Data on the size and total number of social housing and social service facilities is not available. Unit costs reflect the government's intention to help the widest possible range of beneficiaries, while following the energy efficiency first principle.
5.b	Total cost of the measure/ investment	Total cost of the measure will be EUR 378.1 million for floor area of about 2 362 500 m^2 of gross floor area of buildings renovated during the SCF period of 6 years. Estimated number of applicants (entities) is 1 500. Renovation costs distribution is approximately: • social housing - apartment buildings owned by municipalities EUR 54 million per year • Social services facilities EUR 22 million per year

[44] Sternová et al. (2010). Energy performance and energy certification of buildings. (available in Slovak).

<table>
<tr><td>5.c</td><td>Comprehensive timetable within which the costs are to be incurred</td><td>The work will start of 1 January 2027. The first year will be aimed at calls preparation.

<table>
<tr><th>Year</th><th>Gross floor area of renovated buildings</th><th>Costs per unit EUR /m2 (gross floor area)</th><th>Total costs per year MEUR</th></tr>
<tr><td>2027</td><td>Calls preparation</td><td></td><td>0,1</td></tr>
<tr><td>2028</td><td>472 500</td><td>160</td><td>75.6</td></tr>
<tr><td>2029</td><td>472 500</td><td>160</td><td>75.6</td></tr>
<tr><td>2030</td><td>472 500</td><td>160</td><td>75.6</td></tr>
<tr><td>2031</td><td>472 500</td><td>160</td><td>75.6</td></tr>
<tr><td>2032</td><td>472 500</td><td>160</td><td>75.6</td></tr>
<tr><td>Total</td><td></td><td></td><td>378.1</td></tr>
</table></td></tr>
<tr><td>5.d</td><td>Info on national contribution on total cost of M&Is</td><td>Co-financing 25% from national funds</td></tr>
<tr><td>5.e</td><td>Info on additional financing from other Union instruments that could be applicable to the M&Is</td><td></td></tr>
<tr><td>5.f</td><td>Info on envisioned financing from private sources</td><td>No</td></tr>
<tr><td>5.g</td><td>Justification on plausibility and responsibility of estimated costs</td><td>The costs estimation is based on experience from scheme ŠFRB.</td></tr>
<tr><td>6</td><td colspan="2">In the case of M&Is to increase uptake of zero and low-emission mobility and transport, criteria for identifying eligible beneficiaries</td></tr>
<tr><td>6.a</td><td>Time limit for the M&Is and a justification on the basis of quantitative and qualitative explanation on how the measure counteracts increases in price of transport and heating fuel</td><td>Not applicable</td></tr>
</table>

Table 0-4 Measure 4: Advice, professional assistance, capacity building and education

	Element	Description
1	General description of the M&Is A detailed description of M&Is based on desk research and information gathered from stakeholders	
1.a	The nature, size and type of the measure- including if it is new or existing	**Nature**: This measure will provide advice and professional assistance within the framework of one-stop-shops (OSS) created under the EPBD and EED. The aim is to complete OSS services by assistance to vulnerable groups. Provide tailored advice, energy certificates and renovation passports free of charge to vulnerable households (EPBD Art. 12 and 19) and provide education and training to involved stakeholders. Two types of assistance will be supported: • the first-contact advice by existing field social workers (Ministry of Labour, Social Affairs and Family SR) who will provide a basic energy advice and identify eligible households and direct these households to OSS; • detailed technical advice focused on vulnerable groups will be provided in OSS (EED, EPBD). The measure will establish more contact points or OSSs in regions with more vulnerable groups, closer to target groups (densification of OSS). Training, education and capacity-building for stakeholders involved in the implementation of SCF will be provided for: local governments, professionals involved in advice and design of renovation and energy efficiency improvement, regional centres, field social workers training on basic energy advice. The training scheme could be carried out via existing training and capacity building programmes for example, “Obnov dom mini”, “Green solidarity”. The aim is to provide training to people who help vulnerable households. The focus would not just be on individuals, but also on regional energy centers as a whole. Training on inclusive design and the needs of people with disabilities could be included. **Type**: Information, education, awareness and advice **New or existing:**

	Element	Description
		Future one-stop-shops which will be established in accordance with Directive 2023/1791 Article 22(6) and Directive 2024/1275 Article 18(1) and (2) out of SCF. The additionality is extension of one-stop-shops (OSS) created under (EED, EPBD)for all inhabitants by: a tailored advice for vulnerable households, field workers closer to vulnerable groups (e.g. marginalised groups or specific localities such as MRR - less developed priority districts). Within the OSS, the SCF will provide free energy performance certificates and renovation passport to vulnerable households(EPBD Art. 12 and 19), Basic energy advice can be provided by social workers and other professional staff in addition to basic and specialised social advice (SSP) within the following services - field crisis intervention service, low-threshold day centre, integration centre, community centre and low-threshold social service for children and family or by counsellors within SSP. Existing professional staff in registered social crisis intervention services (SSKI), which are present directly in the regions and in the MRC, can be used. Most of the professional staff is currently funded under the NP Together for Communities. What is needed is the training of social workers for basic energy advice. The capacities of the existing and well-functioning programmes such as Healthy Regions programmes and field social workers (TSP) could be utilised for trainings and education. Comprehensive remuneration, and expansion of the remit of the existing support professions, field social workers (TSP), Community Centres, and Healthy Regions, is essential in this regard. There are several existing measures focused on vulnerable groups that exclude the aspects of energy efficiency of buildings. SAŽP provides a field advice in the context of the Obnov Dom MINI in selected municipalities, primarily in terms of the administrative process. The measure at hand is therefore a new distinct measure. **Complementarity to existing schemes:**

	Element	Description
		Advisory capabilities for all schemes should be extended to include targeted assistance for vulnerable groups and SCF.
1.b	Objective of the measure, defining target groups, results and impacts, including on reducing fossil fuel dependency	**Objective of the measure:** The main objective is the **increased renovation rates and quality** of renovation, support for the implementation of other measures from the SCF and specifically navigate people towards the SCP measures renovation of family houses and social housing and social service facilities and in this way to save the final energy, primary energy and CO_2 emissions, reduce fossil fuel consumption and energy expenditures. The advice and assistance to vulnerable groups is crucial for success of other measures. This measure could also provide advice by trained flied social workers on behaviour improvement and soft energy saving measures that could also contribute to SCF goals. The technical advice facilities, OSS, established under the EPBD Art. 18 and EED Art. 22(3) "Information and awareness raising", shall provide streamlined information on technical, administrative and financial advice for energy efficiency, possibilities and solutions to households, microenterprises, public and non-public bodies (e.g. social housing and social services managers). According to EED Art. 22(6, OSS should provide a dedicated services for people affected by energy poverty, vulnerable customers and people in low-income households. In the scope of SCF, under OSSs there will be an extension of advice and assistance adapted to vulnerable groups and closer to specifics of SCF and closer geographically to identified vulnerable groups. **Target groups:** This measure aims to provide specialised assistance to vulnerable households (households also via the social housing entities and flat owners associations and micro-enterprises) as the main target group. Direct advice for family house owners will be first provided by social field workers, who will identify potential recipients and direct them to the One-stop-shops for technical advice. One-stop-shops will then provide advice on all measures in the SCP.

	Element	Description
		The target groups for education and capacity building are: - existing field workers (Ministry of Labour, Social Affairs, and Family) involvement in the first contact basic energy advice, - stakeholders involved in the implementation of SCF, local governments, accredited experts for energy certification and other professionals, micro-enterprises. **Impact**: This measure has an impact on increased renovation rate and quality of renovation, reduction of energy poverty through proper renovation that ensures that real energy cost savings are achieved. This measure will contribute to the following indicators: reduction in the number of vulnerable households, reduction in greenhouse gas emissions in the buildings sector, annual final energy consumption savings. The relevant indicator for indicative milestones and targets for this measure is the number of contacts, that is the number of vulnerable households, micro-enterprises, social housing entities and building managers that were advised, consulted).
1.c	How the M&Is addresses effects of ETS2 on vulnerable groups	The measure supports the improvement of energy efficiency of buildings by awareness rising, increased renovation rate and improved renovation quality. The consequence is decrease of energy consumption, energy costs savings and reduction of greenhouse gas emissions with long-lasting impact. Other impacts are thermal comfort improvement, reduction of health risks due to indoor humidity, avoiding mould growth, reduction of noise by window replacement.
1.d	Implementation – including how and at which administration level and incorporate recommendations for addressing foreseeable implementation challenges	The Ministry of Economy of the Slovak Republic is considered the implementing organisation at this stage. The cooperation will be needed between SAŽP, the Ministry of Transport (responsible for the EPBD implementation) and the Ministry of Economy (responsible for the EED implementation) who are responsible for the establishment of the OSSs.

	Element	Description
		The Ministry of Labour, Social Affairs and Family of the Slovak Republic must be involved (field social workers). The implementation practice of existing schemes by Ministry of Environment has shown that the form of **employment relationship** of field workers with the provider based on a permanent or temporary employment relationship is more appropriate, rather than in the form of work agreements. The regional offices of the SAŽP are primarily intended for evaluating applications, not the technical advice on renovation. The advice on applications could be carried out by SAŽP employees from 10 regional offices, who would regularly visit the OSS, where they would provide advice to vulnerable groups. Their salaries would be financed only from the SCF, while they would use the OSS premises financed from other sources. The private sector actors will also have to be involved (e.g, energy performance assessors) for more technical advice in OSS. Exchange of experiences between relevant state agencies and different ministries will be crucial. **Foreseeable implementation challenges:** • current lack of professional capacities for technical advice • conditions must be specified in implementation phase for providing a free energy certificates and energy passports in order to ensure their quality • field workers competences have to be established in cooperation with the Ministry of Labour, Social Affairs, and Family.
1.e	Gender aspect – how gender inequality is addressed (if applicable)	In Slovakia, the share of single males and females being identified as energy poor according to the EU-SILC indicators are very similar, which may point to the fact that there is not a significant gender aspect to this measure. When designing advice mechanisms, it should be understood who is the main decision-maker in a household and target the support to them. Gender roles and income gaps have a significant

	Element	Description
		impact on the cultural and practical distribution of this role. A gender perspective needs to be considered in targeting and adapting advice. Women as single parents may need a special approach when making decisions about reconstruction.
1.f	Identify key success factors and remaining risks and challenges (+ provide recommendations on how to overcome/mitigate them)	Previous experience by Ministry of Environment clearly shows the necessity of availability of professional advice for residents at risk of energy poverty. A suitably informed and trained first contact expert can provide basic energy advice , but can also provide assistance in **filling out applications** and draw attention to any shortcomings in the information provided, thus contributing to shortening the time required for evaluating applications. The measure will also support **training** of professionals responsible for **evaluating real energy savings** (OSS staff, accredited experts for energy certification). Implementation practice with various financial instruments (POO, REPowerEU, Modernisation Fund) repeatedly shows an **insufficient number of professionals** capable of assessing energy savings. The availability, expertise and flexibility of field workers is a key factor that determines the success/failure of implementing schemes aimed at people living in energy poverty. This is mainly due to socio-economic factors, such as awareness in the technical field, the level of financial literacy and the availability of information on the benefits of home renovation. Last but not least, there is also the unavailability of internet connection, low awareness of the existence of schemes, etc. The Ministry of the Environment of the Slovak Republic therefore considers it crucial that field workers are available during each step of the implementation of measures to renovate family homes of people living in/at risk of energy poverty. **Risks and challenges**: - The main risk is that the interest will be low as the benefits could not be well understood by target group. Involvement of field social workers in the first contact with vulnerable groups could mitigate this challenge.

	Element	Description
		- Insufficient number of technical experts in Slovakia. To mitigate this challenge, it is crucial to extend the competences of existing experts towards the SCF advice (e.g., qualified persons for certification), instead of creating experts dedicated only to SCF implementation.
1.g	Additionality assessment	There are several existing measures focused on vulnerable groups. National project Field social work and community centres "Together for communities" will contribute to alleviating the impact of poverty and social exclusion on people's lives, who have limited access to the resources and services of mainstream society through its activities from August 2023 to January 2029. Its EUR 250 million allocation will help reduce inequalities in access to education, housing, tackling debt, access to employment and increase access to social and support services. The eligible activities aim to help over 80 000 clients with: - Field social work for Marginalised Roma communities and homeless people (330 municipalities – **1 030 positions**); - Community centers, Low-threshold day centers, Low-threshold social services for children and families. (220 providers – **660 jobs**). The Obnov dom (mini) program is implemented by the Slovak Environmental Agency (SAŽP). Qualified employees provide advice to applicants in regional offices in **10 cities** in Slovakia. These include all regional cities, as well as Liptovský Mikuláš and Lučenec. They are well-trained workers who provide detailed advice in relation to the application process, however, advice regarding technical advice on measures (what to renovate, energy efficiency) is not at the level of a professional energy engineer or building engineer. **Development Teams project** is implemented by the Office of the Plenipotentiary of the Government of the Slovak Republic for Roma Communities in 60 selected municipalities in 2023–2026. The project activities relate to education, housing, employment and the fight against racism. Investment activities also include the construction and reconstruction of

	Element	Description
		water supply systems, water sources, the construction of sewerage networks and WWTPs, and the construction of infrastructure for waste management. To address energy poverty, housing development workers could potentially improve the use of the Social Climate Fund among particularly vulnerable population groups. Also, for example, community meetings and focus groups of settlement communities can contribute to raising awareness of the assistance instruments from the SCP and complementary support programs. MIRRI regional centres provide advice on the preparation of high-quality projects financed by the European Union and their subsequent implementation. The advice is provided free of charge. A total of **7 centres** have been established with headquarters in regional cities - Banská Bystrica, Košice, Nitra, Prešov, Trenčín, Žilina, Trnava. The territory of the Bratislava Self-Governing Region is directly covered by Ministry of Investments, Regional Development and Informatisation with professional capacities. Within the framework of the national project **Capacities for Regions**, the Slovak Innovation and Energy Agency (SIEA) will build professional capacities in the regions that will be able to find, monitor and evaluate options for reducing consumption and increasing energy self-sufficiency at the regional and local level. The aim of the project is to ensure regional planning as well as coordination and support for the development of sustainable energy and the decarbonization process in the regions. From January 2024, SIEA planned to expand its workplaces in regional cities and in January 2025, together with the self-governing regions that are project partners, it was supposed to start opening regional sustainable energy centres. **However, the project is delayed and further development is questionable**. We recommend implementing an exchange of experiences between coordination and field workers of the above-mentioned projects and relevant state agencies and ministries.

	Element	Description
		Additionality: Under SCF will be created combination of service provided in **one-stop-shops and existing offices** (e.g. regional offices of Obnov dom and Regional Centres of Ministry of Investments, Regional Development and Informatisation, SAŽP, SIEA) and **field social workers** who will advise vulnerable groups in addition to basic and specialised social counselling (SSP). **Training** of social workers by energy advisors is necessary and the possibility of providing specialised advice in this area to vulnerable groups. It is important that the national projects funded from the Programme Slovakia allow these activities to be **officially expanded** with support for the activities of the Social Climate Fund/Plan.
2	Alignment of M&Is with DNSH principles in accordance with Article 17 of Regulation (EU) 2020/652 Information on how M&Is included in the component comply with the principle of DNSH within the meaning of Article 17 of Regulation (EU) 2020/852[45]	
Approach 1	Are there any activities and/or assets under this measure or investment aligned with one or several sector-specific annexes?	Yes, the measure is aligned with activity B1 (awareness raising activities) of the Annex to the technical guidance.
Approach 2	Are there activities and/or assets under this measure or investment not covered by one or several sector-specific annexes and that do not rely on the alternative approaches (see rows below)	Not applicable, approach 1 followed.
Equivalence	Are there activities and/or assets under this measure or investment aligned with the EU Taxonomy (substantial contribution) and DNSH technical screening criteria?	Not applicable, approach 1 followed.

[45] European Commission. (5 March 2025). Commission Notice – Technical guidance on applying the 'do no significant harm principle' under the Social Climate Fund Regulation. https://climate.ec.europa.eu/document/download/2f3269ea-fb02-4481-a1d5-3453ba3172ea_en?filename=c_2025_880_part_1_en.pdf.

	Element	Description
	Is this measure or investment a financial product implemented under the InvestEU Member State compartment?	Not applicable, approach 1 followed.
	Does the measure / investment have any significant foreseeable impact on…	
2.a	Climate change mitigation	Compliance with applicable legislation is sufficient to prevent significant harm
2.b	Climate change adaptation	Compliance with applicable legislation is sufficient to prevent significant harm
2.c	The sustainable use and protection of water and marine resources	Compliance with applicable legislation is sufficient to prevent significant harm
2.d	The circular economy, including waste prevention and recycling	Compliance with applicable legislation is sufficient to prevent significant harm
2.e	Pollution prevention and control to air, water, or land	Compliance with applicable legislation is sufficient to prevent significant harm
2.f	The protection and restoration of biodiversity and ecosystems	Compliance with applicable legislation is sufficient to prevent significant harm
3	**Target and milestones: implementation timeline**	
3.a	why the specific milestone(s) or target(s) was(were) chosen;	The number of vulnerable households targeted by other measures will determine the number of stakeholders who will need advice and assistance. The number of renovated family houses from SCF will determine the number of issued EPCs and renovation passports for free.
3.b	what the milestone(s) or target(s) is(are) measuring;	The measurable milestones and targets are the number of vulnerable entities (households also via social housing entities and flat owners' associations/facility management companies and micro-enterprises), that will be accompanied by the advice and assistance, the number of issued EPCs and renovation passports and the number of trained advisors and other stakeholders.
3.c	how this will be measured, what methodology and source will be used, and how the proper achievement of the milestone(s) or target(s) will be objectively verified;	**Methodology:** milestones and targets will be measured and verified yearly by the key performance indicators. The source will be records from OSS and field workers operation, e.g. the number of vulnerable households, that were advised by the professionals (e.g. number of

	Element	Description
		contacts), the number of EPCs and renovation passports paid/provided for free, the number of trained advisors involved in SCF.
3.d	what is the baseline (starting point) and what is the level or specific point to be reached; (Quantified value of the targets)	**Baseline**: There are several existing measures focused on vulnerable groups (see 1g), but the aspects of energy efficiency of buildings and SCF have to be completed. People living in energy poverty are affected by socio-economic factors, such as awareness in the technical field, the level of financial literacy and the availability of information on the benefits of home renovation, the unavailability of internet connection, low awareness of the existence of schemes, etc. SAŽP provides a field advice in the context of the scheme Obnov Dom Mini in selected municipalities, primarily in terms of the administrative process. The workers are trained in energy aspects, but not in such depth that they can give qualified advice on measures. Rather, they consult on which measures are financed from the call. The target from the repower plan is 20 000 consultations for the Obnov dom mini scheme (financed by the POO and/or the MoF). The number of consultations within the framework of regular Obnov dom scheme is not monitored in detail. Free expert advice was provided by SIEA in advisory centres between 2016 and 2023 as part of the “Living with energy” project. “Living with Energy” under the umbrella of SIEA and Ministry of Economy of the Slovak Republic. The baseline before implementing the SCF will be the OSS created under the EPBD and EED. EPBD Art. 18: MS shall ensure establishing at least one one-stop shop:(a) per 80 000 inhabitants; (b) per region;(c) in areas where the average age of the building stock is above the national average; (d) in areas where MSs intend to implement integrated district renovation programmes; or (e) in a location that can be reached within less than 90 minutes of average travel time, on the basis of the means of transport that is locally available.

	Element	Description
		For 5 449 270 inhabitants, the EPBD first condition equals to a minimum number of 68 OSSs. Number of OSSs: 68 obligatory created in the future + 10 additional OSSs closer to vulnerable groups = 78 OSSs **Target**: The number of contacts, advice and assistance provided to vulnerable and marginalised groups for about 20 000 renovated family houses, 7 500 social housing and social services facilities and 2 320 building managers/associations of flat owners in multiapartment buildings. About 25 000 building energy performance certificates before and after renovation and renovation passports will be repaid to accredited experts who should be the main technical advisors. The estimate of clients who will not finally renovate house is also included as the reimbursement of the certificate and renovation passport cannot be conditioned on subsequent renovation as the situations may arise when the applicant does not proceed with renovation for several reasons and he cannot pay for EPC. The number of trained stakeholders involved in the implementation of the SCF measures, assistance and advice is about 550. The number of awareness rising campaigns: 5.
3.e	by when it will be reached (by quarter and year)	The work will start of 1 January 2027 (1Q 2027). The targets are expected to be reached by 31 December 2032 (4Q 2032) so a period of 6 years is assumed for implementation.
3.f	who and which institution will be in charge of implementing, measuring and reporting.	**Implementing authority** It is not decided yet who will operate the one-stop-shops (OSS). The Ministry of Economy of the Slovak Republic is considered the implementing organization at this stage. Cooperation will be needed between the SAŽP, the Ministry of Transport (responsible for the EPBD implementation) and the Ministry of Economy (responsible for the EED implementation) who are jointly responsible for the establishment of the OSSs.

	Element	Description
		The Ministry of Labour, Social Affairs and Family of the Slovak Republic must be involved (field social workers). Training should primarily relate to specific calls, so those related to the renovation of family houses should be directed by SAŽP, but in cooperation with SIEA. The involvement in trainings and capacity building of experts for energy certification and professional organisations such as the Slovak Chamber of Civil Engineers (SKSI) is essential in educational and training activities.
3.g	Where applicable, a timeline for gradual reduction of support	N/A
4	**M&Is Implementation and Monitoring**	
4.a	Who and which institutions will be in charge of implementation, measuring and reporting	**Implementing authority:** The Ministry of Economy of the Slovak Republic is considered the implementing organization at this stage in charge of implementing, measuring and reporting in cooperation with SAŽP and the Ministry of Labour, Social Affairs and Family of the Slovak Republic (field social workers). Cooperation will be needed between Ministry of Transport (EPBD implementation) and Ministry of Economy (EED implementation) responsible for creation of OSSs. The regional offices of the SAŽP are primarily intended for evaluating applications, not the technical advice on renovation. The advice on applications could be carried out by SAŽP employees from 10 regional offices Existing capacities of the well-functioning programs could be utilised. It is recommended to coordinate these efforts and trainings with Ministry of Investment, Regional Development and Informatisation regional centres, the Development Teams of the Plenipotentiary for Roma Communities, SIEA's regional offices, and other relevant bodies. Training should primarily relate to specific calls, so those related to the renovation of family houses should be directed by SAŽP in cooperation with SIEA.
4.b	Determine key performance indicators	The relevant indicator for indicative milestones and targets for this measure is the number of advised

	Element	Description
		vulnerable households in family houses, in social housing and social service facilities via social housing entities and flat owners' associations and micro-enterprises by the number of contacts). This measure will increase a renovation rate and quality of renovation and will contribute to the following indicators, which should be also reported: - the number of buildings and the corresponding floor area being renovated with the support of M&Is after advice and assistance, - reduction of number of households in energy poverty, - reduction in greenhouse gas emissions, - savings in annual primary and final energy consumption, confirmed for individual family houses by EPC before and after renovation
4.c	Describe rules to monitor the achievement of the objectives	The advice and assistance will be monitored annually based on the above KPIs.
5	**Financing and costs**	
5.a	Methodology, underlying assumptions and their justification	Assumptions for costs estimation are partly based on SAŽP experience from "Obnov dom" scheme (10 regional advice centers): - **OSS workers:** 10h/client for 5000 clients/year (for 4 000 really renovated family houses per year) + 300 social housing entities are assumed that is 331 person months (PM) per year - Average super gross costs of one OSS employee: 3 000 EUR/month Total costs (for 78 OSSs; 331 PM * 3 000) = **EUR 0.994 million per year** - **Field social workers** trained for first contact energy advice will provide 5 000 assistances (for 4 000 really renovated houses) per year. It is assumed 8h per assistance, that is 250 person months /year … Average gross costs per field worker employee: EUR 2 500 EUR per month Total costs for field workers assistance 250 PM = **EUR 0.625 Million per year** - **Apartment building managers**/associations of flat owners (around 2 320 depending on the concentration of vulnerable households in one

<table>
<tr><th></th><th>Element</th><th>Description</th></tr>
<tr><td></td><td></td><td>apartment building) will get support 6h/client that is 17.4 person months/year with average gross costs per employee giving advice: 1 800 EUR/month and total cost = 0.0313 million EUR per year
- The total number of clients supported, who renovate or plan to renovate building are for 20 000 family houses renovated, 25 000 clients supported + 1 500 social housing entities + 2 320 building managers in apartment buildings. Total number: 28 820 contacts during 5 years of SCF implementation. Family houses owners (25 000) are supported twice, by OSS (10h) and field workers (8h).

- EPCs (before and after) and renovation passports provided for family house for free: EUR 1 700/2xEPC + renovation passport for 5 000 clients per year (for 5 years period): EUR 8.5 million per year

- awareness rising campaigns cost EUR 1 million; EUR 0.2 million per year

Total yearly costs: 0.994+0.625+0.0313+8.5+0.2 = EUR 10.55 million PER year

- Education training (education materials development, trainers, trainings, including training of staff responsible for evaluating real energy savings) in the first year EUR 1 million and EUR 0.2 million each year.</td></tr>
<tr><td>5.b</td><td>Total cost of the measure/ investment</td><td>The total cost of the measure will be EUR 53.95 million during the SCF period of 6 years.</td></tr>
<tr><td>5.c</td><td>Comprehensive timetable within which the costs are to be incurred</td><td>The work will start of 1 January 2027 with the first year focusing on OSS content preparation, staff training and education but also field work should start as soon as possible.

<table>
<tr><th>Year</th><th>Number of OSS</th><th>Costs per unit million EUR</th><th>Total costs per year million EUR</th></tr>
<tr><td>2027</td><td>Preparation, education,</td><td></td><td>1.0 + 0.2</td></tr>
</table>
</td></tr>
</table>

	Element	Description
		<table><tr><td></td><td>training, campaigns</td><td></td><td></td></tr><tr><td>2028</td><td>1</td><td>10.35+0.2</td><td>10.55</td></tr><tr><td>2029</td><td>1</td><td>10.35+0.2</td><td>10.55</td></tr><tr><td>2030</td><td>1</td><td>10.35+0.2</td><td>10.55</td></tr><tr><td>2031</td><td>1</td><td>10.35+0.2</td><td>10.55</td></tr><tr><td>2032</td><td>1</td><td>10.35+0.2</td><td>10.55</td></tr><tr><td>Total</td><td></td><td></td><td>53.95</td></tr></table>
5.d	Info on national contribution on total cost of M&Is	Co-financing 25% from national funds
5.e	Info on additional financing from other Union instruments that could be applicable to the M&Is	None.
5.f	Info on envisioned financing from private sources	None.
5.g	Justification on plausibility and responsibility of estimated costs	Costs are estimated based on experience from the "Obnov dom" scheme.
6	**In the case of M&Is to increase uptake of zero and low-emission mobility and transport, criteria for identifying eligible beneficiaries**	
6.a	Time limit for the M&Is and a justification on the basis of quantitative and qualitative explanation on how the measure counteracts increases in price of transport and heating fuel	N/A

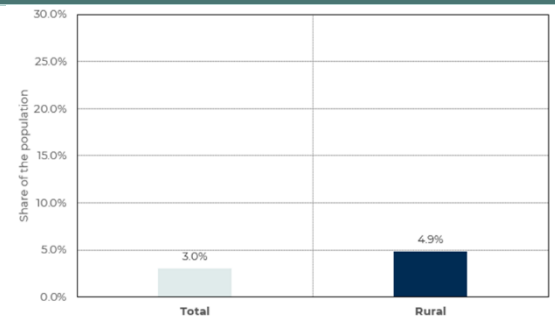
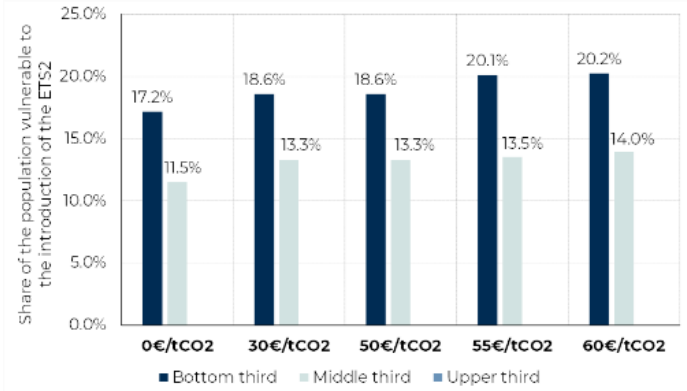
Table 0-5 Investment 5: Support scheme for buying new zero emission vehicles for public transport and fleet expansion with charging points

	Element	Description
1	General description of the M&Is A detailed description of M&Is based on desk research and information gathered from stakeholders	
1.a	The nature, size and type of the measure- including if it is new or existing	The investment falls under the "Fleet expansion: Expand and modernise public transport fleets with low-emission vehicles such as electric buses" category. It targets vulnerable households and vulnerable transport users in transport poor regions.

	Element	Description
		The investment aims to fund the replacement of older, less emission-efficient public transport vehicles—such as railroad vehicles, buses, and microbuses—or to acquire new ones to improve and increase the number of connections in regions with limited public transport access or strengthen the schedule of the public transport. The procurement process should prioritise zero-emission vehicles and railroad vehicles in accordance with Act 214/2021 as amended. Additionally, bike carriers should be an integral part of the scheme, ensuring passengers can seamlessly combine public transport with cycling for first- and last-mile travel. The vehicles should be low-floor and low-entry. This approach will help reduce emissions, promote multimodal transport options, and enhance the overall quality of public transport services. Part of the support should be allocated to building charging points for vehicles in depots and at final stops/terminals. Based on the modelling results, the criteria for prioritisation should be based on the availability of public transport service and by the transport-poor region index. Standards for the availability of public transport will be defined by the National Transport Authority (currently under preparation), a body of the Ministry of Transport. The study prepared by the Institute of Environmental Policy indicates which regions may be at risk of transport poverty relative to others, so called IEP Index . The measure will therefore prioritise transport in indicated poor regions thereby achieving emission reduction via the purchase of new vehicles (new fleet compared to the old one) or by TCO change. We strongly suggest using the criterion of establishing of new connection or strengthening the public transport schedule when using vehicles under this scheme. Eligible recipients would be self-governing regions, municipalities, companies established by municipalities, ZSSK, and companies providing public transport on the contract base in the public interest.
1.b	Objective of the measure, defining target groups, results and impacts, including on reducing fossil fuel dependency	The objective of the investment is to provide service of public transport in high quality option for travelling as alternative for using a car. This will be achieved by the replacement of the current public transport vehicle fleet to a zero-emission fleet and provide funding for

	Element	Description
		related infrastructure (charging points). The new fleet will ensure better quality of public transport and zero-emission operation thus contributing to the reduction of fossil fuels and emissions (GHG, NOx, Sox, PM2,5. New vehicles are expected to have lower OPEX and using electricity and thus mitigate the impact of EU ETS 2 on fossil fuels. To ensure efficiency of the investment from the point of the impact of target group, the index prepared by the Institute of Environmental Policy[46] will be used to define the prioritisation of regions and support for the purchase of the vehicle. New vehicles should have a lower TCO including fuel costs and thus mitigate the impact of ETS2 on the transport users, more significantly on the lower income groups.
1.c	How the M&Is addresses effects of ETS2 on vulnerable groups	In Slovakia, 4.9% of population in rural areas has very difficult access to public transport compared to the 3% experiencing difficulty in total. Also, according to modelling (Deliverable 2): • 12–14.5% of the population is deemed vulnerable, depending on the level of the ETS2 price, in sparsely populated areas. • The impact of ETS2 costs will have to be tackled especially for those using private cars to commute and do not have any alternative. In Slovakia, men mostly rely on private car ownership for family commuting needs while women rely more on public transport, which is not equally accessible and available across the country. • Individual motorised transport is used more frequently in rural areas to commute to the cities where basic services. The measure will provide: • an option for using public transport, • an alternative for not using a car. Share of the population affected by very difficult access to public transport in Slovakia is 3% total and 4.9% in rural areas. (Figure 3 35, DLV 2)

[46] Institute of Environmental Policy (2025). I don't have a car, I don't have a bus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html. (available in Slovak).

	Element	Description
		 Share of the Slovak population deemed vulnerable to transport poverty and particularly vulnerable to the introduction of ETS2 by expenditure tercile (Figure 3 27, DLV 2) 
1.d	Implementation – including how and at which administration level and incorporate recommendations for addressing foreseeable implementation challenges	The main authority for public transport is the Ministry of Transport of the Slovak Republic and its organisation: National Transport Authority (Slovak abbrev.: NADA). Public transport in Slovakia is provided by the government (through Ministry of Transport and by ordering to Railroad company – ZSSK), by self-governing regions (and by ordering in private or public companies based on the procurement), by municipalities (by ordering based on procurement to private or public companies or by ordering through own municipality company). The investment is proposed for self-governing regions, municipalities, ZSSK and for public or private companies providing public transport (based on the procurement and order of the self-governing region or municipality). Challenges of the investment are related to the process of public procurement for the vehicles and possible delays of the vehicle delivery. Additionally, when building new charging points and connections to the grid, the process of obtaining the necessary building permits may be a challenge both in the time

	Element	Description
		to acquire said permits and in fulfilling all the procedural steps in the permitting process.
1.e	Gender aspect – how gender inequality is addressed (if applicable)	The usage of private and public modes of transportation is gendered in Slovakia. Men tend to use private cars to commute and quality improvement in public vehicles fleet may cause men to be motivated to decrease their use of private cars. On the other hand, women seem to rely more on public transport in sparsely populated and rural areas and, subsequently, will be positively affected by the higher accessibility of public transport services. This is particularly pertinent whenever the alternative of owning a private car is limited for women.
1.f	Identify key success factors and remaining risks and challenges (+ provide recommendations on how to overcome/mitigate them)	Success factors: • New emission zero fleet providing public transport in Slovakia. • Sufficient funding for zero emission vehicles and charging infrastructure and efficient public procurement. Risk factors: • Unwillingness and lack of interest of self-governing regions, municipalities, and private companies for changing fleet to zero emission vehicles. The concern arises from the possible increase in vehicle procurement costs, as electric vehicles are more expensive, and from the operation, where the different schedule of trips due to the expected range of electric vehicles is needed. The concern is therefore about the increase in the total price of the ticket and the provision and availability of transport service. • Delay and problems with charging points installation. • Ensuring an efficient public procurement process. For more details see chapter 1d. To mitigate the risk factors, the quality of the documentation for public procurement is crucial. The documentation should therefore be based on successful public procurement processes for public transport vehicles in the past, for instance ZSSK procurement of battery railroad vehicles[47].
1.g	Additionality assessment	The investment is new, except railroad vehicles that may be funded from the EU funds (Programme

[47] Public procurement office. (n.d.). Order – Procurement of new hybrid electric units for regional transport. https://www.uvo.gov.sk/vyhladavanie/vyhladavanie-zakaziek/detail/524801?cHash=9febba4ac824f2d4f65aa35e6cffb100.

	Element	Description
		Slovakia, Recovery and Resilience Plan) in that case it is the extension of the current schemes. In the Programme Slovakia the measure "2.8.1 Support for the development of sustainable mobility outside Bratislava self-governing region", it is possible to obtain funding for the renewal of vehicles for public transport (alternatively powered buses including the related charging and recharging infrastructure).
2	Alignment of M&Is with DNSH principles in accordance with Article 17 of Regulation (EU) 2020/652 Information on how M&Is included in the component comply with the principle of DNSH within the meaning of Article 17 of Regulation (EU) 2020/852[48]	
Approach 1	Are there any activities and/or assets under this measure or investment aligned with one or several sector-specific annexes?	Yes, the investment is aligned with activities T4 (zero-emission vehicles of categories M2, M3, N2, N3), T14 (individual infrastructure measures for road public transport), and T18 (zero-emission railway, metro, or tramway rolling stock, including its components) of the Annex to the technical guidance.
Approach 2	Are there activities and/or assets under this measure or investment not covered by one or several sector-specific annexes and that do not rely on the alternative approaches (see rows below)	Not applicable, approach 1 followed.
Equivalence	Are there activities and/or assets under this measure or investment aligned with the EU Taxonomy (substantial contribution) and DNSH technical screening criteria?	Not applicable, approach 1 followed.
	Is this measure or investment a financial product implemented under the InvestEU Member State compartment?	Not applicable, approach 1 followed.
	Does the measure / investment have any significant foreseeable impact on…	

[48] European Commission. (5 March 2025). Commission Notice – Technical guidance on applying the 'do no significant harm principle' under the Social Climate Fund Regulation. https://climate.ec.europa.eu/document/download/2f3269ea-fb02-4481-a1d5-3453ba3172ea_en?filename=c_2025_880_part_1_en.pdf.

	Element	Description
2.a	Climate change mitigation	Compliance with applicable legislation is sufficient to prevent significant harm
2.b	Climate change adaptation	Compliance with applicable legislation is sufficient to prevent significant harm
2.c	The sustainable use and protection of water and marine resources	Compliance with applicable legislation is sufficient to prevent significant harm
2.d	The circular economy, including waste prevention and recycling	Compliance with applicable legislation is sufficient to prevent significant harm
2.e	Pollution prevention and control to air, water, or land	The investment is proposed to use zero vehicles so reducing fossil fuel consumption and transport emissions. New vehicles tyres should comply with external rolling noise requirements in class A and with the rolling resistance coefficient in classes A or B as set out in Regulation (EU) 2020/74093 and as can be verified from the European Product Registry for Energy Labelling (EPREL).
2.f	The protection and restoration of biodiversity and ecosystems	Compliance with applicable legislation is sufficient to prevent significant harm
3	**Target and milestones: implementation timeline**	
3.a	why the specific milestone(s) or target(s) was(were) chosen;	The milestones and targets were chosen to monitor the implementation of the measure/scheme and to evaluate its success while improving the quality, accessibility, and emission performance of public transport. The targets and milestones are set to track the progress of purchasing vehicles and establishing the necessary infrastructure.
3.b	what the milestone(s) or target(s) is(are) measuring;	Target: Improved quality, accessibility, and emission performance of public transport Milestones: 1.1.2026: Scheme for the purchase of the vehicle and charging points is in force. 31.12.2026: First public procurements are finished.. 31.12.2027: First vehicles are delivered. First charging points built First vehicles are in use/operation 4Q 2031: All busses and battery railroad vehicles procured and delivered and all charging points built. Targets: • Fleet of public transport vehicles (replacement or the purchase of new ones):

	Element	Description
		• 217 long buses with electric drivetrain; • 217 short buses with electric drivetrain; • 5 battery railroad vehicles. • 87 of charging points for public vehicle fleet busses built.
3.c	how this will be measured, what methodology and source will be used, and how the proper achievement of the milestone(s) or target(s) will be objectively verified;	The targets will be measured by NADA as the coordination body of the public transportation in the Slovak Republic.
3.d	what is the baseline (starting point) and what is the level or specific point to be reached; (Quantified value of the targets)	Currently, a fleet of electric buses is in operation in cities of Bratislava (18), Košice (9), Žilina (2), Prešov (5) and Šaľa (1). These busses are used in urban areas. According to the Statistical Office of the Slovak Republic, there were 8 690 buses in total in Slovakia in 2023[49]. In 2025, ZSSK (the state owned public transport railroad provider and transport company) launched a public procurement process for 16, with the option for an additional 20, battery railroad vehicles (36 in total)[50].
3.e	by when it will be reached (by quarter and year)	We expect to reach the targets in 4Q 2031. Targets per year are as follows: 4Q 2027: 40 short and 40 long busses, 16 charging points 4Q 2028: 55 short and 55 long busses, 22 charging points 4Q 2029: 50 short and 50 long busses, 20 charging points 4Q 2030: 40 short and 40 long busses, 16 charging points. 3 battery railroad vehicles 4Q 2031: 32 short and 32 long busses, 13 charging points. 2 battery railroad vehicles
3.f	who and which institution will be in charge of implementing, measuring and reporting.	The Ministry of Transport and NADA will be the implementing bodies. At the regional level, data will be provided by self-governing regions and municipalities who are ordering the service. The origin source of the data are the chosen public or private entities who provide the

[49] Statistical Office of the Slovak Republic (n.d.). Transport - infrastructure, motor vehicles, accidents [do1012rs]. https://datacube.statistics.sk/#!/view/sk/VBD_SK_WIN/do1012rs/v_do1012rs_00_00_00_sk.
[50] Public procurement office (2025). Tender documents. https://www.uvo.gov.sk/vyhladavanie/vyhladavanie-dokumentov/detail/3475967?cHash=e460d9d3889396aa025a017fa7fdf218.

	Element	Description
		service of public transport in the municipalities and regions.
3.g	Where applicable, a timeline for gradual reduction of support	N/A
4	**M&Is Implementation and Monitoring**	
4.a	Who and which institutions will be in charge of implementation, measuring and reporting	The Ministry of Transport and NADA will be the implementing bodies. Self-governing regions and municipalities will provide regional and local data for reporting purposes. Providers of the service – public or private companies, ZSSK – will measure and provide the data for further reporting.
4.b	Determine key performance indicators	KPIs: • Number of vehicles supported. • Number of charging point built. • Energy used by vehicles. • Distance driven in total and in average.
4.c	Describe rules to monitor the achievement of the objectives	The implementing bodies, the Ministry of Transport and NADA, will provide an annual report accounting for the achieved milestones within the set timeline.
5	**Financing and costs**	
5.a	Methodology, underlying assumptions and their justification	Cost assumptions are based on the existing services and expertise of NADA and the analysis conducted by the Institute of Environmental Policy (IEP). Estimations on the unit price are based on the consultation with Slovak electric vehicle association (SEVA), data from public procurement on the electric buses from the past and data from ongoing public procurement on battery railroad vehicles. Basic assumptions and estimations are as follows: • Unit price of the short electric bus: EUR 350 000 • Unit price of the long electric bus: EUR 510 000 • Unit price of the battery railroad vehicle: EUR 8.675 million • Unit price of charging point: EUR 30 000 (as current call of the Recovery and Resilience pan for public charging stations) • Expected number of supported short busses: 217 • Expected number of supported long busses: 217 • Total number of expected number of busses: 434 (5% of bus fleet in Slovakia in 2023)

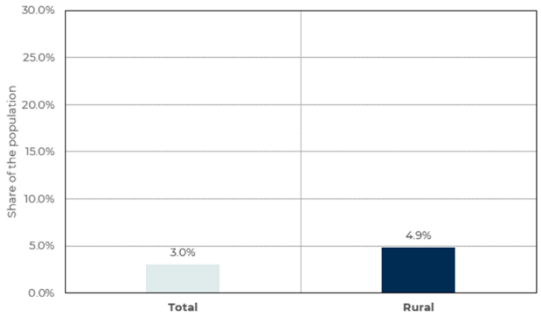
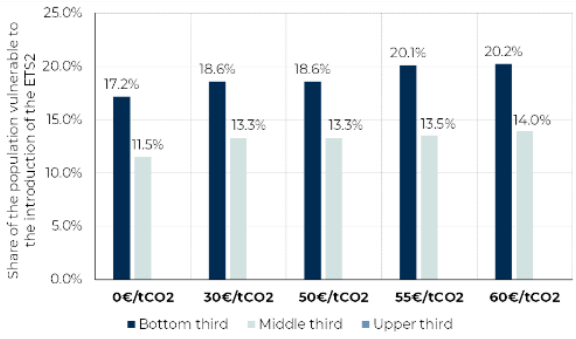
	Element	Description
		• Expected support for battery railroad vehicles: 5 • Expected number of charging points: 87 (1 for 5 busses)
5.b	Total cost of the measure/ investment	EUR 232 605 million Investment
5.c	Comprehensive timetable within which the costs are to be incurred	2027: EUR 34.88 million 2028: EUR 47.96 million 2029: EUR 43.6 million 2030: EUR 60.905 million 2031: EUR 45.26 million Calculation is based on the assumptions in 5a and targets in 3a.
5.d	Info on national contribution on total cost of M&Is	Co-financing 25% from national funds, amounting EUR 58 151 250
5.e	Info on additional financing from other Union instruments that could be applicable to the M&Is	No other Union financing.
5.f	Info on envisioned financing from private sources	None.
5.g	Justification on plausibility and responsibility of estimated costs	Cost assumptions are based on the existing services and expertise of NADA and the analysis conducted by the Institute of Environmental Policy (IEP). Estimations on the unit price are based on the consultation with Slovak electric vehicle association (SEVA), data from public procurement on the electric buses from the past and data from ongoing public procurement on battery railroad vehicles.
6	**In the case of M&Is to increase uptake of zero and low-emission mobility and transport, criteria for identifying eligible beneficiaries**	
6.a	Time limit for the M&Is and a justification on the basis of quantitative and qualitative explanation on how the measure counteracts increases in price of transport and heating fuel	This investment addresses ETS2-related cost increases by improving public transport through the use of zero or low emission vehicles and thus reduces reliance on private vehicles and fossil fuel, thus lowering household costs. Additionally, using zero or low emission vehicles decreases the operative costs for the fuel of the providers, so lowering the burden of ETS2 on the price of the ticket or subsidy for the ticket paid by the ordering institution.

Table 0-6 Measure + investment 6: On-demand transport

	Element	Description
1	General description of the M&Is A detailed description of M&Is based on desk research and information gathered from stakeholders	
1.a	The nature, size and type of the measure- including if it is new or existing	The measure + investment falls under the "On-Demand & Shared Mobility" category. It targets vulnerable households and vulnerable transport users in transport poor regions. The measure + investment is targeted at transport-poor areas and regions, and at households or individuals in rural and semi-urban areas with bad or insufficient (time or frequency) connections to the economic centre, hospital, or other essential services. It is preferable to connect these regions with the train stops or hubs for better connections to mentioned services. Consequently, people with existing health problems and disabled persons whose mobility is limited are also a targeted group. This measure is complementary and should not be a replacement of regular transport and should be based on the ad-hoc needs of vulnerable groups. The model of door-to-door, "request call transport" or standard transport with defined stops may be used as well. The selection of model will define the need and the complexity of the ordering and dispatching system. The measure + investment would provide support for introducing on demand connections to municipalities, self-governing regions, or organisations in the social care system, including NGOs. The service is new and will be integrated in the existing public transport schedule and it is complement to the existing system. The primary criterion for supporting on-demand transport is the increased inclusion of citizens residing in transport poor regions and ensuring the accessibility and availability of modes of transport (based on the planned NADA standards (currently under preparation) or IEP work on transport poverty index[51]). Regarding the selection process of introduced routes, the criteria should include

[51] Information on the index may be found here: Ministry of Environment. (2025). I don't have a car, I don't have a bus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html. It is the composite index consisting of 13 sub-indexes, for example: average travelling time, number of connections, travel time to nearest hospital, share of population with public transport stop available up to 500 meters, average income, average age of a car, share of pensioners, etc.

	Element	Description
		cost effectiveness, e.g. the costs per kilometer and per expected passenger. Eligible expenses within the measure + investment should include the purchase of zero emission vehicles, charging infrastructure, operating expenses of the connection for 3 years and at the maximum level of 50%, ordering and dispatching system for citizens (e. g., necessary software). Vehicles should ensure and be equipped to transport passengers with disabilities/limited mobility, if necessary.
1.b	Objective of the measure, defining target groups, results and impacts, including on reducing fossil fuel dependency	The objective of the measure + investment is to provide funding for on-demand public transport to improve the accessibility of connections for citizens, mostly in underserved rural and remote areas and regions, thereby targeting vulnerable transport users with limited transport options. On-demand transport should provide better accessibility to essential services (education, healthcare, work, shopping, public administration, hobby) mostly in sparsely populated areas. Low-income households will be affected as on demand transport is a cheaper alternative compared to using private car). Using on-demand public transport in underserved times for households not owning the car makes the transport available for this group of citizens. The measure can reduce the dependency for owning a car and reduce forced car ownership in regions with insufficient public transport connections. For the measure, the support of only zero emission vehicles is proposed to contribute to fossil fuel reduction (and thus GHG emission reduction).
1.c	How the M&Is addresses effects of ETS2 on vulnerable groups	In Slovakia, 4.9% of population in rural areas has very difficult access to public transport compared to the 3% experiencing difficulty in total. Also, according to modelling: • 12–14.5% of the population is deemed vulnerable, depending on the level of the ETS2 price, in sparsely populated areas. • The impact of ETS2 costs will have to be tackled especially for those using private cars to commute and do not have any alternative. In Slovakia, men mostly rely on private car ownership for family commuting needs while women rely more on public transport, which is not equally accessible and available across the country. • Individual motorised transport is used more frequently in rural areas to commute to the cities with basic services.

Element	Description
	To mitigate the effects of ETS 2, the measure would provide: • an additional option for using public transport, • an alternative for not using a car as a result of broadened public transport options, • a new option for those not owning a car and need to fulfil their transport requirements. The measure + investment is going to mitigate the price increase in fossil fuels as a result of the EU ETS 2 introduction as the fare for public transport is a cheaper alternative to maintaining and utilising a private car for the majority of commuting, especially in transport-poor regions where car ownership is currently the only option. All regions are eligible, however, it is recommended to provide on-demand public transport service in rural and partially in semi-rural areas. The selection process should prefer transport poor regions based on the IEP index (see 1a and 1b). Share of the population affected by very difficult access to public transport in Slovakia is 3% total and 4.9% in rural areas. (Figure 3 32, DLV 2)  Share of the Slovak population deemed vulnerable to transport poverty and particularly vulnerable to the introduction of ETS2 by expenditure tercile (Figure 3 27, DLV 2) 

	Element	Description
1.d	Implementation – including how and at which administration level and incorporate recommendations for addressing foreseeable implementation challenges	The main authority for the public transport is the Ministry of Transport of the Slovak Republic and its organisation: National Transport Authority (Slovak abbrev.: NADA). Public transport in Slovakia is provided by the government (through the Ministry of Transport and by the services of the Railroad company – ZSSK), by self-governing regions (and by ordering services via private or public companies based on procurement processes), by municipalities (by ordering services based on the procurement to private or public companies or by ordering through own municipality company). The measure + investment is therefore proposed for and will be implemented self-governing regions, municipalities and public or private companies providing a public transport (based on the public procurement and order of the self-governing region or municipality). In addition, NGOs offering social services may apply for the scheme if they meet the requirement of the Act on public transport n. 332/2023 as amended. Challenges of implementing the measure + investment lie in the integration of on-demand transport into the standard public transport network and in securing sustainable funding (the measure proposes 3 years of funding operative expenses (OPEX) for maximum 50%). By OPEX, we consider the following in particular: fuel costs; vehicles maintenance costs and tyres costs; salaries of drivers, administrative staff and mechanics; insurance costs; fees for using roads or highways; cleaning and disinfection costs; and other administrative costs related to transport (licences, accounting, dispatching, etc.). An additional challenge is the development of an ordering and dispatching or booking system that needs to be user friendly for a broad spectrum of users (the elderly, those without connection to internet, and those with no or limited IT competency).
1.e	Gender aspect – how gender inequality is addressed (if applicable)	The usage of private and public modes of transportation is gendered in Slovakia. Men tend to use private cars to commute and introducing on-demand transport services may cause men to be motivated to decrease their use of private cars. On the other hand, women seem to rely more on public transport in sparsely populated and rural areas and, subsequently, will be positively affected by the higher accessibility of public transport services. This is particularly pertinent whenever the alternative of owning a private car is limited for women.

	Element	Description
1.f	Identify key success factors and remaining risks and challenges (+ provide recommendations on how to overcome/mitigate them)	Success factor: • Citizens in sparsely populated areas using the on-demand transport service. • Sufficient funding for zero emission vehicles and charging infrastructure and efficient public procurement. Risk factors: • Concerns related to the ability of self-governing regions and municipalities to provide such a type of public transport integrated into the existing public transport structure. • Low demand from transport users and low start-up/ramp-up curve of use of the service. • The design of the dispatching and ordering or booking system must be user-friendly and accessible for all types of citizens and transport users. • Lack of existing charging-point infrastructure. To mitigate the potential low uptake of the service, we propose funding of OPEX for the duration of 3 years after the launching of the service to overcome the concerns of demand side (and income) of the service. Additionally, the measure should be accompanied by information and public awareness campaigns at the local level via different channels to potential users. It should be undertaken by local providers of transport and ordering institution who pays the service (municipality, self-governing region). For the dispatching system, the procurement process needs to define all possible channels of ordering the service and ride allocation algorithm so everyone may use the service and the rides are effective in time and costs regardless of the user's IT skills or access to technology. Effective public procurement is needed for the installation of charging points. Specifically, the requirements for the charging points and their proposed project planning will need to align with the targeted areas and service deployment milestones.
1.g	Additionality assessment	New scheme.
2	Alignment of M&Is with DNSH principles in accordance with Article 17 of Regulation (EU) 2020/652	

	Element	Description
	Information on how M&Is included in the component comply with the principle of DNSH within the meaning of Article 17 of Regulation (EU) 2020/852[52]	
Approach 1	Are there any activities and/or assets under this measure or investment aligned with one or several sector-specific annexes?	Yes, the measure + investment is aligned with activities T4 (zero-emission vehicles of categories M2, M3, N2, and N3), T7 (deployment and use of intelligent transport systems), and T14 (individual infrastructure measures for road public transport) of the Annex to the technical guidance.
Approach 2	Are there activities and/or assets under this measure or investment not covered by one or several sector-specific annexes and that do not rely on the alternative approaches (see rows below)	Not applicable, approach 1 and equivalence followed.
Equivalence	Are there activities and/or assets under this measure or investment aligned with the EU Taxonomy (substantial contribution) and DNSH technical screening criteria?	Yes, the measure + investment is aligned with urban and suburban transport, road passenger transport as defined in the EU Taxonomy
	Is this measure or investment a financial product implemented under the InvestEU Member State compartment?	Not applicable, approach 1 and equivalence followed.
	Does the measure / investment have any significant foreseeable impact on…	

[52] European Commission. (5 March 2025). Commission Notice – Technical guidance on applying the 'do no significant harm principle' under the Social Climate Fund Regulation. https://climate.ec.europa.eu/document/download/2f3269ea-fb02-4481-a1d5-3453ba3172ea_en?filename=c_2025_880_part_1_en.pdf.

	Element	Description
2.a	Climate change mitigation	Compliance with applicable legislation is sufficient to prevent significant harm
2.b	Climate change adaptation	Compliance with applicable legislation is sufficient to prevent significant harm
2.c	The sustainable use and protection of water and marine resources	Compliance with applicable legislation is sufficient to prevent significant harm
2.d	The circular economy, including waste prevention and recycling	Measures need to be put in place to manage waste from the public transport operations, in accordance with the waste hierarchy, both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein).
2.e	Pollution prevention and control to air, water, or land	Vehicle tyres should comply with external rolling noise requirements in class A and with the rolling resistance coefficient in classes A or B as set out in Regulation (EU) 2020/840, as can be verified from the European Product Registry for Energy Labelling (EPREL). The evidence of compliance can be provided based on tyre labelling and certificate. Where applicable, vehicles comply with the requirements of the most recent applicable stage of the Euro VI heavy duty emission type-approval set out in accordance with Regulation (EC) No 595/2009.
2.f	The protection and restoration of biodiversity and ecosystems	Compliance with applicable legislation is sufficient to prevent significant harm
3	**Target and milestones: implementation timeline**	
3.a	why the specific milestone(s) or target(s) was(were) chosen;	The targets presented below were chosen to ensure that the accessibility of public transport is achieved in transport poor regions and for vulnerable transport users and citizens facing enforced ownership of a car. These citizens require support to maintain affordable access to public transport to commute to essential services. Overarching target: Improved accessibility of the public transport by introducing 20 new connection lines in transport poor region. In case of potential low demand from eligible institutions for the on-demand transport service, it would be possible

	Element	Description
		to support more lines in one region if the new line would serve different part of the region or district. Milestones: 1.1.2026: Scheme for the on-demand transport entry into force 31.12.2026: Public procurements are finished, first vehicles delivered and prepared for service. First charging points built and installed. 1.1.2027: First connection lines launched and in service for transport users 31.12.2030: 20 lines of on-demand service are in operation
3.b	what the milestone(s) or target(s) is(are) measuring;	The number of new connections or regions of the on-demand service. Regions should be selected based on transport poverty of the region based on the Institute of Environmental Policy[53] study or SAV's publication: Target 1: On-demand service in 10 regions in total (4Q 2027). Target 2: On-demand service in 15 regions in total (4Q 2028). Target 3: On-demand service in 18 regions in total (4Q 2029). Target 4: On-demand service in 20 regions in total (4Q 2030). 18,848 transport users overall (20 lines in operation) using the service.
3.c	how this will be measured, what methodology and source will be used, and how the proper achievement of the milestone(s) or target(s) will be objectively verified;	The targets will be measured by NADA as the coordination body of the public transportation in the Slovak Republic (including data on passengers, vehicle occupancy rate, etc. as required by Slovak legislation).
3.d	what is the baseline (starting point) and what is	Currently, there is 1 example of an on-demand transport in Slovakia (Trnava self-governing region[54]). The goal is to service a total of 20 new regions in 7 years.

[53] Ministry of Environment of the Slovak Republic. (n.d.). I don't have a car, I don't have a bus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html. (available in Slovak).
[54] NaZahori.sk. (2020). Almost 1 400 people used the bus to call in the villages of Prietrž, Rovensko, Šaštín – Stráže and Čáry na Záhorie. https://arriva.sk/autobus-na-zavolanie-do-rovenska-a-prietrze-sa-cez-vikendy-prisposobi-poctu-pasazierov-jazdit-budu-minibusy-81/ https://www.nazahori.sk/takmer-1400-ludi-vyuzilo-autobus-na-zavolanie-v-obciach-prietrz-rovensko-sastin-straze-a-cary-na-zahori/.

	Element	Description
	the level or specific point to be reached; (Quantified value of the targets)	
3.e	by when it will be reached (by quarter and year)	We expect to reach the final target in Q4 2030 with the last two introduced services funded up to Q4 2032 (OPEX). Detailed targets are in 3b. We expect to reach the milestone of full operation of the first line in Q1 2027 an operation of all lines in Q4 2030.
3.f	who and which institution will be in charge of implementing, measuring and reporting.	The Ministry of Transport and NADA will be the implementing bodies. At the regional level, data will be provided by self-governing regions and municipalities who are ordering the service. The origin source of the data are the chosen public or private entities who provide the service of the on-demand transport in the municipalities and regions.
3.g	Where applicable, a timeline for gradual reduction of support	After 3 years of service, the compensation for the OPEX will not be provided.
4	**M&Is Implementation and Monitoring**	
4.a	Who and which institutions will be in charge of implementation, measuring and reporting	The Ministry of Transport and NADA will be the implementing bodies. Self-governing regions and municipalities will provide regional and local data for reporting purposes. Providers of the service – public or private companies, NGOs – will measure and provide the data for further reporting.
4.b	Determine key performance indicators	KPIs: • Number of on-demand service started. • Average occupancy of the vehicle. • Distance driven in total and in average. • Average distance travelled by passenger. • Structure of the passengers (vulnerable, elderly, low-income, students, children, men/women, single parent, etc.). • Structure of order made by passengers (application, web, phone call, other). • Energy used by vehicles.
4.c	Describe rules to monitor the achievement of the objectives	The implementing bodies, the Ministry of Transport and NADA, will provide an annual report accounting for the achieved milestones within the set timeline.
5	**Financing and costs**	

	Element	Description
5.a	Methodology, underlying assumptions and their justification	Cost assumptions are based on the existing services and expertise of NADA and the analysis conducted by the Institute of Environmental Policy (IEP). Based on the IEP study, the measure may affect from 75 623 to 303 273 vulnerable citizens[55]. Estimations on the price of vehicles and charging points were discussed with the Slovak electric vehicle association (SEVA) to reach estimates based on industry data. Basic assumptions: • 20 lines • 2 vehicles per line needed • Unit costs of the vehicle (8+1 passengers): EUR 62 500 • Unit cost for combined slow and fast charging point/station: EUR 30 000(same costs are currently used by call of the Recovery and Resilience Plan for public charging stations), 1 per line • OPEX estimation: EUR 75 000 per vehicle (max 50% to be covered by the scheme for 3 years after opening the service at the line) • Ordering/Dispatching/Booking system development: EUR 15 000 per line
5.b	Total cost of the measure/ investment	We expect a total cost of EUR 7.9 million up to 2032. Investment costs on vehicles, dispatching / ordering / booking system and charging stations are EUR 3.4 million, OPEX costs are EUR 4.5 million.
5.c	Comprehensive timetable within which the costs are to be incurred	2027: EUR 1.7 million and EUR 0.75 million in OPEX (10 lines in operation; investment in 20 vehicles, 10 charging stations built, 10 dispatching systems developed and in operation, OPEX for 20 vehicles) 2028: EUR 0.85 million and EUR 1.125 million in OPEX (15 lines in operation; investment in 10 vehicles, 5 charging stations build, 5 dispatching system developed and in operation, OPEX for 30 vehicles) 2029: EUR 0.51 million and EUR 1.35 million in OPEX (18 lines in operation; investment in 6 vehicles, 3 charging stations build, 3 dispatching system developed and in operation, OPEX for 36 vehicles)

[55] Ministry of Environment of the Slovak Republic (2025). I don't have a car, I don't have a bus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html. (available in Slovak).

	Element	Description
		2030: EUR 0.34 million and EUR 0.75 million in OPEX (20 lines in operation; investment in 4 vehicles, 2 charging stations build, 2 dispatching system developed and in operation, OPEX for 20 vehicles) 2031: EUR 0.375 million in OPEX (20 lines in operation; OPEX for 5 vehicles) 2032: EUR 0.15 million in OPEX (20 lines in operation; OPEX for 2 vehicles) Calculations are based on the targets in 3b and assumptions in 5a.
5.d	Info on national contribution on total cost of M&Is	Co-financing 25% from national funds, amounting EUR 1.975 million.
5.e	Info on additional financing from other Union instruments that could be applicable to the M&Is	No other Union financing.
5.f	Info on envisioned financing from private sources	No.
5.g	Justification on plausibility and responsibility of estimated costs	Cost assumptions are based on the existing services in the pilot project from the Trnava self-governing region and existing expertise of NADA. The costs are also based on the IEP analysis and data from SEVA, especially on unit costs.
6	**In the case of M&Is to increase uptake of zero and low-emission mobility and transport, criteria for identifying eligible beneficiaries**	
6.a	Time limit for the M&Is and a justification on the basis of quantitative and qualitative explanation on how the measure counteracts increases in price of transport and heating fuel	This measure + investment addresses ETS2-related cost increases in rural and sparsely populated areas by improving public transport through on-demand, zero-emission services. It reduces reliance on private vehicles and fossil fuel, thus lowering household costs. By improving rural public transport with on-demand service, this measure aims to lessen the financial burden of ETS2 on households achieved by increasing accessible a mobility option for public transport.

Table 0-7 Measure 7: Provision of discounts on public transport fare for citizens in material deprivation

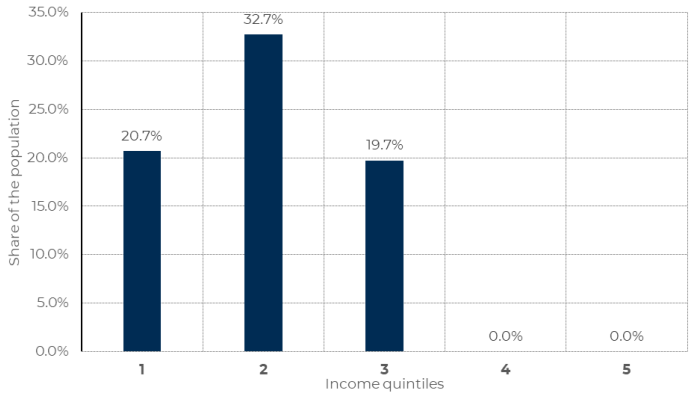
	Element	Description
1	General description of the M&I A detailed description of measures and investments based on desk research and information gathered from stakeholders	
1.a	The nature, size and type of the measure- including if it is new or existing	The measure falls under the "Affordable transport solutions: Offer subsidies for public transport passes and other affordable mobility options to ensure accessibility for all" category. It targets vulnerable transport users and citizens in material deprivation, the poorest part of the population. To assess the affordability of the public transport, there is significant overlap with economic and social poverty of citizens with the transport poverty and transport poor regions in Slovakia (see below and illustrative tables in 1.c). There is already a system of reduced fare in place in Slovakia. For train transport, discounts are applied for children up to 6 years (zero fare), for students up to 26 years after registration (zero fare, a quota of how many zero fare tickets can be issued for each train is set) or a discount of 50% in general, and for pensioners above 62 years (zero fare). For bus transport, discounts depend on the ordering institution. In general, discounts are applied for children up to 6 years (usually zero fare), students up to 26 years (usually a discount of 50%), pensioners above 62 years (50% discount most often). A reduced fare is also applied for people with health disabilities in train and bus transport, including an accompanying person. In Slovakia, the reimbursement of travel expenses for transport based on the Act 597/2003 Coll. on the financing of primary schools, secondary schools and school facilities is in place. Pupils in kindergartens and primary schools are eligible and the reimbursement is provided by the Ministry of Education, Research, Development and Youth.[56] Compared to the existing system of discounts, this measure is additional for students at high schools and for adults in the situation of material deprivation. We suggest: • Discount of 100% of fare for students attending primary or high school or other forms of the educational process. This part of the measure is dealing with the transport affordability for students (= affordability dimension of transport poverty) and households in material deprivation and sets an equal playing field for all modes of transport in Slovakia compared to current situation when train tickets have 100% discounts for students.

[56] Ministry of Education, Research, Development and Youth of the Slovak Republic (2022). Transportation allowance. https://www.minedu.sk/prispevok-na-dopravu/.

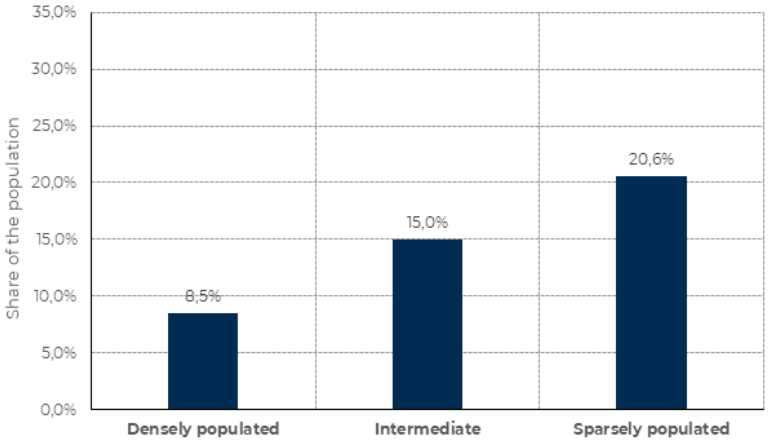
	Element	Description
		This measure will affect mainly students and citizens in rural and semi-rural areas and regions with no free train transport. • Discount of 50% for adults (age 18 years and above) and citizens above 15 years of age when not enrolled at an education institution based on the criteria set in the bullet above. From a territorial perspective, the measure is aimed at the entire territory of Slovakia although we assume the majority of citizens in material deprivation is living in less developed regions as these have been identified as poorer ones according to the IEP index. Also, there is a significant overlap of social or economic and transport poverty in economic poor regions (see illustrative tables in 1.c).
1.b	Objective of the measure, defining target groups, results and impacts, including on reducing fossil fuel dependency	The objective of the measure is to provide funding for discounts on the fare for citizens in material deprivation and thus improve the affordability of the public transport for the poorest part of the population. The measure is targeting vulnerable transport users – citizens in material deprivation, the poorest one (material deprivation and social assistance and benefits are defined in the act of 417/2013 Coll. as amended[57]). It means low-income households will be affected. The measure should improve the affordability of public transport for above mentioned households and individuals or even enable the transport.
1.c	How the M&I addresses effects of ETS2 on vulnerable groups	The measure will provide: • increased affordability for using public transport, • possibility to fulfil the transport needs. The measure will affect the selected vulnerable group in two ways. First, it ensures that public transport is accessible to low-income citizens, meeting their essential mobility and transport needs. This aspect of the measure specifically targets individuals experiencing transport poverty and does not directly address the impact of the introduction of ETS 2. Secondly, however, it is estimated that ETS 2 will raise the cost of fossil fuels for both private cars and public transport. Subsequently, the financial burden for low-income citizens will rise, a burden the measure aims to address by providing a cheaper alternative within the existing public transport system. Share of the household/population that spends more than twice the median on transportation and has total expenditure

[57] Ministry of Labour, Social Affairs and the Family of the Slovak Republic. (n.d.). Help in material need. https://www.employment.gov.sk/sk/rodina-socialna-pomoc/hmotna-nudza/.

	Element	Description
		below national median by expenditure quintiles (HBS 2015) (Figure 3 33, DLV 2)

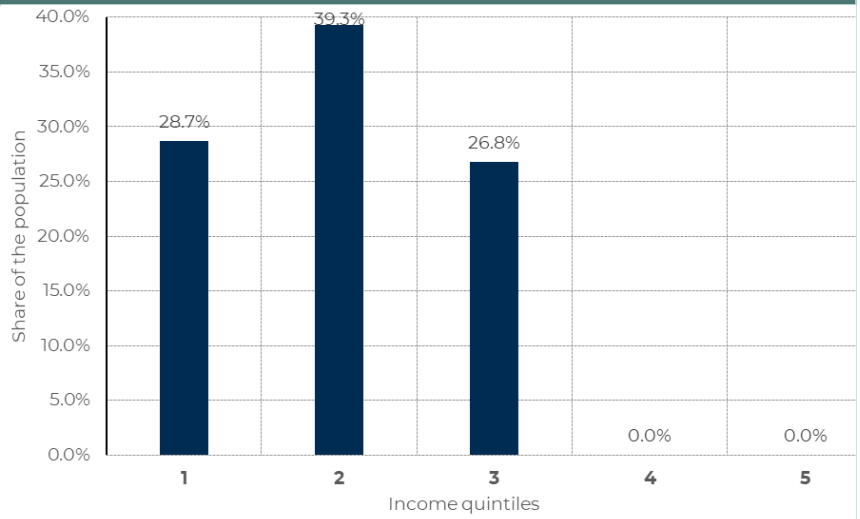


Share of the household/population that spends more than twice the median on transportation and has total expenditure below national median by degree of urbanisation (HBS 2015) (Figure 3 34, DLV 2)



Share of the household/population that spends more than 6% on transportation and has total expenditure below national median by expenditure quintiles (HBS 2015) (Figure 3 35, DLV 2)

Element	Description



Share of the household population that spends more than 6% on transport and has total expenditure below national median by degree of urbanisation (HBS 2015) (Figure 3 36, DLV 2)

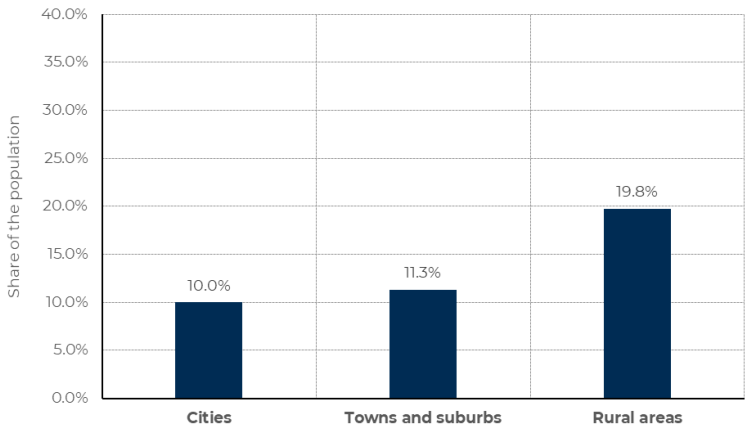


Table: Least developed/Lagging behind regions (counties) according to Slovak law 336/2015 in Q1 2025

			Number of vulnerable municipalities according to IEP index		Number of citizens in material deprivation used for IEP index	
County	**Self-governing region**	**Unemployment Rate**	**Number**	**% of municipalities in county**	**Number**	**% of all citizens in material**
Rimavská Sobota	Banská Bystrica	10.67	55	0.51	2971	0.28
Kežmarok	Prešov	9.28	14	0.34	3011	0.30
Revúca	Banská Bystrica	8.37	23	0.55	1959	0.31
Vranov nad Topľou	Prešov	8.35	32	0.47	2852	0.37

Element	Description

Rožňava	Košice	8.18	28	0.45	1314	0.20
Medzila-borce	Prešov	7.92	17	0.74	245	0.25
Stropkov	Prešov	7.39	30	0.70	340	0.24
Poltár	Banská Bystrica	7.35	10	0.45	297	0.22
Sabinov	Prešov	7.3	17	0.40	387	0.06
Svidník	Prešov	7.12	37	0.54	595	0.30
Bardejov	Prešov	6.76	37	0.43	1633	0.36
Lučenec	Banská Bystrica	6.23	18	0.32	745	0.14
Sobranc e	Košice	6.13	24	0.51	402	0.23
Trebišov	Košice	5.94	18	0.22	459	0.05
Levoča	Prešov	5.41	11	0.33	456	0.21
				0.474		0.237

Source: own calculations based on:

- the Office of Labour, Social Affairs and Family. Data for April 2025. Link: https://www.upsvr.gov.sk/statistiky/nezamestnanost-mesacne-statistiky/2025.html?page_id=1419219
- Annex to the Ministry of Environment of the Slovak Republic IEP Study: I don't have a car, I don't have a bus. Link: https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html

Vulnerable municipalities are those with index 8, 9, and 10 (1 = minimum vulnerability, 10 = the most vulnerable)

Table: Vulnerability to transport poverty in 8 self-governing regions in Slovakia and GDP per capita and unemployment rate

Self-governing region	Number of vulnerable municipalities		Number of vulnerable citizens		HDP per capita	Registered unemployment rate
	Number	%	Number in thousand	%	EUR	%
Banská Bystrica	224	43	72	12	17 457,71	6,77
Bratislava	2	3	2	0,2	186,72	2,92
Košice	130	30	58	7	074,61	6,44
Nitra	70	20	45	7	030,60	3,59
Prešov	293	44	107	13	107,98	7,85
Trenčín	58	21	26	5	296,68	3,51
Trnava	29	12	20	4	760,66	3,29
Žilina	60	19	33	5	770,26	3,79

Source: own calculations based on:

- Office of the Labour, Social Affairs and Family. Data for April 2025. Link: https://www.upsvr.gov.sk/statistiky/nezamestnanost-mesacne-statistiky/2025.html?page_id=1419219

	Element	Description
		• Table 3 of the Ministry of Environment of the Slovak Republic IEP Study: I don't have a car, I don't have a bus., p. 17. Link: https://www.upsvr.gov.sk/statistiky/nezamestnanost-mesacne-statistiky/2025.html?page_id=1419219 • Statistical Office of the Slovak Republic for GDP per capita in current prices for 2023. Link on database: https://datacube.statistics.sk/#!/view/sk/VBD_SK_WIN/nu3002rr/v_nu3002rr_00_00_00_sk Vulnerable municipalities are those with index 8, 9, and 10 (1 = minimum vulnerability, 10 = the most vulnerable) The tables illustrate the overlap in economic, social and transport poverty in least developed or lagging region in Slovakia. The first table describes lagging regions defined by Slovak law 336/2015. It shows that in average 43.4% of municipalities in the lagging region are transport poor and vulnerable and (almost quarter) of 23.4% of citizens in material deprivation is living in these municipalities. It indicates that the measure on provision of discounts for public transport should be accompanied with other proposed transport measures or investments in the SCF for Slovakia to improve the accessibility and availability of the transport, with public transport being the most preferable solution. The second table provides view at the level of the self-governing regions (NUTS3 level). The most threatened or vulnerable regions are Prešov and Banská Bystrica self-governing regions, where the share of vulnerable citizens is the highest and at the same time, these two regions have the lowest GDP per capita and the highest registered unemployment rates.
1.d	Implementation – including how and at which administration level and incorporate recommendations for addressing foreseeable implementation challenges	The main authority for the public transport is the Ministry of Transport of the Slovak Republic and its organisation: National Transport Authority (Slovak abbrev.: NADA). Public transport in Slovakia is provided by the government (through Ministry of Transport and by ordering to Railroad company ZSSK), by self-governing regions (and by ordering in private or public companies based on the procurement), by municipalities (by ordering based on procurement to private or public companies or by ordering through own municipality company). The measure is proposed for self-governing regions and municipalities and providers of the public transport based on the agreement in the public interest. The administrative identification of citizens in material deprivation should be done by the regional offices of the Office of Labour, Social Affairs and Family as individuals or households

	Element	Description
		belonging to the threshold of material deprivation (set by the "minimum standard of living") and entitled to receive this social benefit are registered at the local level of the Office. Reduced fare or discounts would be provided by the public transport providers and subsequently will be compensated by the ordering institution and funded by the SCF. When the transport user is identified as vulnerable according to the measure (in material deprivation) the discounts would be applied automatically after registering and obtaining a transport card. If interested in discounted travel fares, the eligible person will request confirmation for the purpose of obtaining the discount from the regional office of labour, social affairs and family.
1.e	Gender aspect – how gender inequality is addressed (if applicable)	The gender aspect is not addressed by the measure.
1.f	Identify key success factors and remaining risks and challenges (+ provide recommendations on how to overcome/mitigate them)	Success factor: • Citizens in material deprivation using reduced fare by public transport. • Acknowledgement of the measure of citizens in material deprivation on the possibility of using reduced fare – campaigns of regional providers of public transport would be useful. Risk factors: Even 50% reduces fare may be considered by the citizens in material deprivation as too expensive.
1.g	Additionality assessment	The measure is new scheme following current system in place. The scheme is additional to the existing discounts and reduced fare in public transport.
2	Alignment of M&I with DNSH principles in accordance with Article 17 of Regulation (EU) 2020/652 Information on how measures and investments included in the component comply with the principle of DNSH within the meaning of Article 17 of Regulation (EU) 2020/852[58]	

[58] European Commission. (5 March 2025). Commission Notice – Technical guidance on applying the 'do no significant harm principle' under the Social Climate Fund Regulation. https://climate.ec.europa.eu/document/download/2f3269ea-fb02-4481-a1d5-3453ba3172ea_en?filename=c_2025_880_part_1_en.pdf.

	Element	Description
Approach 1	**Are there any activities and/or assets under this measure or investment aligned with one or several sector-specific annexes?**	Yes, the measure is aligned with activity T8 (demand-driven measures in the form of public transport tickets, shared mobility subscriptions, on-demand transport services) of
Approach 2	Are there activities and/or assets under this measure or investment not covered by one or several sector-specific annexes and that do not rely on the alternative approaches (see rows below)	Not applicable, approach 1 followed.
Equivalence	Are there activities and/or assets under this measure or investment aligned with the EU Taxonomy (substantial contribution) and DNSH technical screening criteria?	Not applicable, approach 1 followed.
	Is this measure or investment a financial product implemented under the InvestEU Member State compartment?	Not applicable, approach 1 followed.
	Does the measure / investment have any significant foreseeable impact on…	

	Element	Description
2.a	Climate change mitigation	Compliance with applicable legislation is sufficient to prevent significant harm
2.b	Climate change adaptation	Compliance with applicable legislation is sufficient to prevent significant harm
2.c	The sustainable use and protection of water and marine resources	Compliance with applicable legislation is sufficient to prevent significant harm
2.d	The circular economy, including waste prevention and recycling	Compliance with applicable legislation is sufficient to prevent significant harm
2.e	Pollution prevention and control to air, water, or land	Compliance with applicable legislation is sufficient to prevent significant harm
2.f	The protection and restoration of biodiversity and ecosystems	Compliance with applicable legislation is sufficient to prevent significant harm
3	**Target and milestones: implementation timeline**	
3.a	why the specific milestone(s) or target(s) was(were) chosen;	Target: The target of the scheme is to improve the affordability of public transport by introducing reduced fares for citizens in material deprivation. As such, the milestones below were chosen to track the process of introducing the additional fare reductions in practice leading to increased utilisation of public transport by citizens in material deprivation. Milestones: 1.1.2026: Scheme for the compensation of the reduced fare/discounts entering into force. Q1 2026: Reduced fare being applied across all providers of public transport.
3.b	what the milestone(s) or target(s) is(are) measuring;	The target measures the passengers using the reduced fare for commuting or ad hoc journeys in public transport. The indicator: The number of passengers using reduced fare in the transport service in the structure of discounts will be used. In 2023, approximately 192 000 citizens were in material deprivation and around 74 000 were living in transport-poor regions based on the results of the IEP study. The study estimates 15 589 945 individual journeys annually will be made. In average, it is 117 journey per eligible citizen (student visiting

	Element	Description
		school and adults).Overall, the M&Is is expected to address 130 239 transport users.
3.c	how this will be measured, what methodology and source will be used, and how the proper achievement of the milestone(s) or target(s) will be objectively verified;	The targets will be measured by NADA as the coordination body of the public transportation in the Slovak Republic based on the data of the providers of the public transport and the ordering institution.
3.d	what is the baseline (starting point) and what is the level or specific point to be reached; (Quantified value of the targets)	A system of reduced fare and discounts in the public transport service already exists for specific groups of the population as specified in Chapter 1a. In 2023, approximately 192 000 citizens were in material deprivation and around 74 000 citizens were living in transport-poor regions based on the IEP study. When looking at the economic development of regions in Slovakia and the data provided and analysed in the IEP paper on the transport poverty index, they are almost overlapping (IEP index also includes the economic aspect). It means that there is a high probability that the majority of the population in material deprivation is living in less developed and transport-poor regions.
3.e	by when it will be reached (by quarter and year)	The reduced fare will be provided from the year 2026 (Q1). The measure will cover a period of 7 years, expecting it will reach the target the first year (2026).
3.f	who and which institution will be in charge of implementing, measuring and reporting.	The Ministry of Transport and NADA in cooperation with the Office of the Labour, Social Affairs and Family will be the implementing bodies. Data will be provided by public transport providers and ordering institutions (self-governing regions and municipalities) at the regional level.
3.g	Where applicable, a timeline for gradual reduction of support	After 7 years of service the compensation should be examined.
4	**M&I Implementation and Monitoring**	
4.a	Who and which institutions will be in charge of	The Ministry of Transport and NADA in cooperation with the Office of the Labour, Social Affairs and Family will be the implementing bodies.

	Element	Description
	implementation, measuring and reporting	Data will be provided by public or private transport providers and ordering institutions (self-governing regions and municipalities) at the regional level.
4.b	Determine key performance indicators	KPIs: • The number of transported passengers in material deprivation using the reduced fare. • The structure and reason of the journeys (from residence to school, other journeys).
4.c	Describe rules to monitor the achievement of the objectives	The implementing bodies, the Ministry of Transport and NADA, will provide an annual report accounting for the achieved milestones within the set timeline.
5	**Financing and costs**	
5.a	Methodology, underlying assumptions and their justification	Cost assumptions are based on the existing system of the discounts on fares in the Slovak Republic. Expected costs of the measure came from the IEP study on the transport poverty and its calculations. The IEP assumptions of costs are based on the calculations of: • the additional cost per journey, • number of journeys, • number of citizens in material deprivation by category (students, adults) and by average mobility (children without students are not counted as they are not eligible under this measure), • price of the transport card[59]. Around 74 000 citizens may be affected by the measure in transport poor regions and 192 000 in total.
5.b	Total cost of the measure/ investment	Estimated costs for students in the age for high schools and adults living in the material deprivation are EUR 50 133 020 (including costs on transportation cards). These costs are additional to the existing system of provided discounts on fares and tickets already in place.
5.c	Comprehensive timetable within which the costs are to be incurred	Q4 2026: EUR 7 161 860 Q4 2027: EUR 7 161 860 Q4 2028: EUR 7 161 860 Q4 2029: EUR 7 161 860 Q4 2030: EUR 7 161 860 Q4 2031: EUR 7 161 860 Q4 2032: EUR 7 161 860
5.d	Info on national contribution on total cost of M&I	Co-financing 25% from national funds, amounting EUR 12 533 255. At the same time, the current discount system and costs remain in place.

[59] For more information on calculations see study by IEP. Especially the file "Tabuľka opatrení". Ministry of Environment (2025). Nemám auto, nemám autobus. https://www.minzp.sk/iep/publikacie/ekonomicke-analyzy/analyza-dopravna-chudoba.html.

	Element	Description
5.e	Info on additional financing from other Union instruments that could be applicable to the M&I	No other Union financing.
5.f	Info on envisioned financing from private sources	No.
5.g	Justification on plausibility and responsibility of estimated costs	Cost assumptions are based on the existing system of the discounts on fares in the Slovak Republic and at the estimations done by IEP. For the costs assumptions see 5a.
6	**In the case of M&Is to increase uptake of zero and low-emission mobility and transport, criteria for identifying eligible beneficiaries**	
6.a	Time limit for the M&I and a justification on the basis of quantitative and qualitative explanation on how the measure counteracts increases in price of transport and heating fuel	This measure addresses ETS2-related cost increases for low-income households and individuals, specifically the poorest one that are in material deprivation. The measure improves the affordability of public transport for the selected group of vulnerable transport users in general, makes the public transport as possible option and it reduces the costs of public transport service. In some case, it reduces reliance on private vehicles and fossil fuel, thus lowering household costs (mostly in sparsely populated and remote regions).

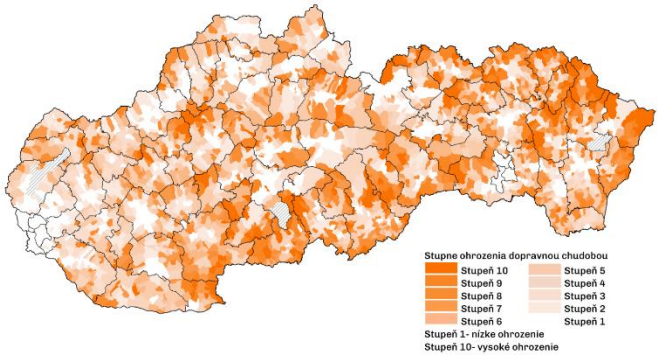
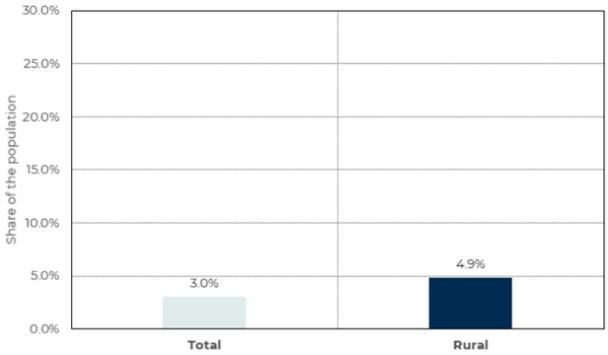
Table 0-8 Investment 8: Investments in railway infrastructure

	Element	Description
1	General description of the M&Is A detailed description of M&Is based on desk research and information gathered from stakeholders	
1.a	The nature, size and type of the measure-including if it is new or existing	The investment falls under the "Infrastructure development: Investment in the development of public transport infrastructure, including new routes" category. The aim of the proposed investment is to improve the quality and connectivity of railway services in Slovakia, specifically, in transport-poor regions to enhance the offer and accessibility of public transport. The projects presented below (for which funding is intended) are located in two self-governing regions with prevalent

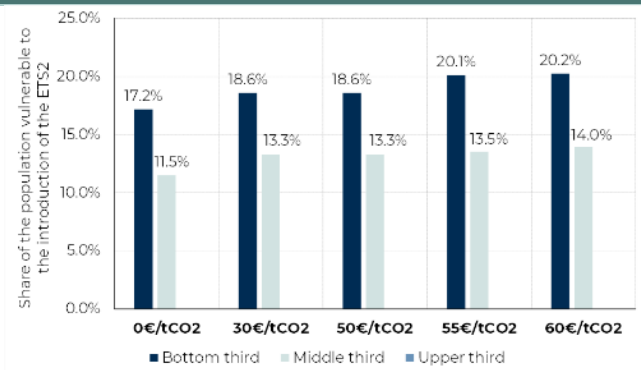
	Element	Description
		transport poverty according to the IEP analysis[60] - the Prešov self-governing region with the worst levels of transport poverty and the Košice self-governing region which is characterised as third most vulnerable. According to the report, 107 000 citizens in the Prešov self-governing region and 58 000 citizens in the Košice self-governing may be vulnerable. Consequently, the investment should be provided for funding 5 railway infrastructure projects. These include 4 railway lines/tracks dispatching and remotely controlling crossing system on the following routes: Humenné – Medzliaborce, Humenné – Stakčín, Poprad – Stará Ľubovňa, and Nálepkovo – Margecany. The fifth project is the electrification of 1 railway track on the route Prešov – Kapušany. The selected railway lines are in bad condition resulting in reduced overall speed, no possibility to add more trains to the lines decreasing the availability of public transport, and the lines are not electrified. The reconstruction of the lines is included in the Prioritisation of the railway infrastructure – the strategy document of the Ministry of Transport[61] which includes the methodology and categorisation for prioritising railway projects. However, it is important to note that the selected projects presented above are in the very early phases of feasibility studies and no technical documentation has been prepared yet. All investments should be carried out by Slovak Railways (ŽSR), which is the state-owned railway company responsible for the railway infrastructure in Slovakia.
1.b	Objective of the measure, defining target groups, results and impacts, including on reducing fossil fuel dependency	The objective of the investment is the improvement of the quality, accessibility of public transport options resulting from the possible increase and enhancement of connections via the reconstruction of 5 railway lines/tracks in transport-poor regions. The investment is specifically targeting the following transport poor districts found in the Prešov and Košice self-governing regions by reconstructing existing railways:

[60] Institute of Environmental Policy (2025). I don't have a car, I don't have a bus, page 17. https://www.minzp.sk/files/iep/analyzy/2025_2_mobilita_dopravna_chudoba.pdf.
[61] Ministry of Transport (n.d.). Priority vo výstavbe železničnej infraštruktúry. https://www.mindop.sk/priority/zeleznice. Ministry of Finance (2023). Priority v obnove a rozvoji železničnej infraštruktúry. https://www.mindop.sk/uploads/Sch%C3%A9ma%20pomoci/prioritizacia_ZI_20210301_final_web.pdf.

	Element	Description
		- Humenné, - Medzilaborce, - Snina, - Stará Ľubovňa, - Kežmarok, and - Gelnica. The project of electrification is targeting the better connection to the Humenné and Bardejov districts. It is expected that the investment will improve the quality of the public transport, increase the number of public transport connections and thus promote the shift to public transport and improve its accessibility. Here is the detail specification of the lines and expected results: 1. Dispatching of line Humenné – Medzilaborce: • Length of the line: 40.9 km • Expected time savings: 7.5 minutes • Investment costs: EUR 37.4 million • Expected rise of passengers 8.8% (daily from 898 to 977) 2. Dispatching of line Nálepkovo – Margecany: • Length of the line: 39.5 km • Expected time savings: 4 minutes • Investment costs: EUR 30.8 million • Expected rise of passengers 3.6% (daily from 777 to 805) 3. Dispatching of line Poprad – Stará Ľubovňa: • Length of the line: 47.4 km • Expected time savings: 4.5 minutes • Investment costs: EUR 52.8 million • Expected rise of passengers 4.26% (daily from 1 033 to 1 077) 4. Dispatching of line Humenné – Stakčín: • Length of the line: 26.9 km • Expected time savings: 2 minutes • Investment costs: EUR 25.3 million • Expected rise of passengers 3.1% (daily from 1 451 to 1 496) 5. Electrifiction of line Prešov – Kapušany: • Length of the line: 9.8 km

	Element	Description
		• Investment costs: EUR 18.7 million
1.c	How the M&Is addresses effects of ETS2 on vulnerable groups	Vulnerability to transport poverty with the darkest orange symbolising the highest degree of transport poverty concentrated in the east part of the country (the Prešov and Košice self-governing regions) (IEP report[62]).  The share of the total population affected by very difficult access to public transport in Slovakia is 3%. It increases to 4.9% in rural areas. (Figure 3 32, DLV 2)  Share of the Slovak population deemed vulnerable to transport poverty and particularly vulnerable to the introduction of ETS2 by expenditure tercile (Figure 3 27, DLV 2)

[62] The IEP index indicates which municipality and region may be considered as transport poor. It is the composite index consisting of 13 sub-indexes, for example: average travelling time, number of connections, travel time to nearest hospital, share of population with public transport stop available up to 500 meters, average income, average age of a car, share of pensioners, etc. For more information see DLV2 or study, table number 2. See: Institute of Environmental Policy (2025). I don't have a car, I don't have a bus. https://www.minzp.sk/files/iep/komentare/2025_2_mobilita_dopravna_chudoba_tags.pdf.

	Element	Description
		
1.d	Implementation – including how and at which administration level and incorporate recommendations for addressing foreseeable implementation challenges	The investment would be implemented by the ŽSR and by the Ministry of the Transport. Foreseeable implementation challenges • Process of project documentation and obtaining all permits, including process of EIA. • Process of public procurement for building the infrastructure and the possible delays. To mitigate the challenges, ŽSR and the Ministry of Transport will need to establish an experienced project team to cover the obstacles and problems with documentation, including covering of EIA process according to Slovak legislation and the building permit process. For the construction phase, the quality of public procurement documentation will be crucial. For the addressing of possible delay during construction phase, public procurement may use the qualitative criterion on the length of the construction and benefits for earlier competition of the construction.
1.e	Gender aspect – how gender inequality is addressed (if applicable)	The usage of private and public modes of transportation is gendered in Slovakia. Women seem to rely more on public transport to commute and, subsequently, will be positively affected by the higher accessibility and improved quality of public transport services. This is particularly pertinent whenever the alternative of owning a private car is limited for women.
1.f	Identify key success factors and remaining risks and challenges (+ provide recommendations on how to overcome/mitigate them)	Success factor: • The increased usage of newly renovated and constructed railway lines as a result of increased accessibility. • Efficient process of public documentation, EIA and public procurement. Risk factors: • Delays in public procurement and permitting processes

	Element	Description
		• Delays and problems during the construction phase. For the mitigating of the risk factor see 1d.
1.g	Additionality assessment	ŽSR is funded from the government budget as well as from the income from the fees on the using of railway infrastructure. However, government funds are insufficient and funding from the Operational Programme Slovakia and the Recovery and Resilience Plan is in place. The CEF funds are also currently used by ŽSR. Funding from the SCF would be additional for the railway lines in these five transport poor regions.
2	Alignment of M&Is with DNSH principles in accordance with Article 17 of Regulation (EU) 2020/652 Information on how M&Is included in the component comply with the principle of DNSH within the meaning of Article 17 of Regulation (EU) 2020/852[63]	
Approach 1	**Are there any activities and/or assets under this measure or investment aligned with one or several sector-specific annexes?**	Yes, the investment is aligned with activities T23 (individual infrastructure for rail public transport) and T25 (upgrade of linear infrastructure for rail public transport) of the Annex to the technical guidance.
Approach 2	Are there activities and/or assets under this measure or investment not covered by one or several sector-specific annexes and that do not rely on the alternative approaches (see rows below)	Not applicable, approach 1 followed.
Equivalence	Are there activities and/or assets under this measure or investment aligned with the EU Taxonomy (substantial contribution) and DNSH technical screening criteria?	Not applicable, approach 1 followed.

[63] European Commission. (5 March 2025). Commission Notice – Technical guidance on applying the 'do no significant harm principle' under the Social Climate Fund Regulation. https://climate.ec.europa.eu/document/download/2f3269ea-fb02-4481-a1d5-3453ba3172ea_en?filename=c_2025_880_part_1_en.pdf.

	Element	Description
	Is this measure or investment a financial product implemented under the InvestEU Member State compartment?	Not applicable, approach 1 followed.
	Does the measure / investment have any significant foreseeable impact on...[64]	
2.a	Climate change mitigation	Compliance with applicable legislation is sufficient to prevent significant harm
2.b	Climate change adaptation	Potential material risks to the activity/asset from climate-related hazards should be: a. identified through a proportionate climate risk assessment (e.g. by applying Commission Technical Guidance on Climate Proofing of Infrastructure in the period 2021-2027 (2021/C 373/01), using representative concentration pathway (RCP4.5) as a baseline for scenario-based assessments, or by using the local and national risk assessments, as appropriate); b. reduced to a level that the contracting authority considers acceptable over the planned physical lifespan of the infrastructure. The implementation of physical and non-physical measures reducing material impacts (as referred to in point b) above) should: (i) ensure the resilience of the infrastructure to an acceptable level of damages in case of foreseeable climatic hazards such as flood events; and (ii) be integrated in the design and construction phases of the asset/activity. Consideration should be given to the viability of 'green' or 'nature-based-solutions' over 'grey' measures to address adaptation.

[64] The investment falls under T23 of the Technical guidance on applying the 'do no significant harm' principle under the Social Climate Fund Regulation. More specifically first 3 bullets: (1) Electrification of track (e.g. installation of catenary); (2) Installation of electric recharging infrastructure and hydrogen refuelling stations for rail transport; (3) Digital equipping of track (e.g. equipment with the European Rail Traffic Management System (ERTMS), new radio systems (e.g. FRMCS), other signalling and safety systems for public transport, transport digitalisation, prioritisation at traffic lights, advanced traffic management (e.g. ATO), digital connectivity based on ERTMS and digital automatic couplings (DAC), connectivity based on at least 5G and satellite and inertial units for the geopositioning units of ERTMS). For this activities only compliance with applicable legislation is sufficient.

	Element	Description
		The activity should not increase the risks of an adverse climate impact on other people, nature and assets or hamper adaptation elsewhere
2.c	The sustainable use and protection of water and marine resources	Compliance with applicable legislation is sufficient to prevent significant harm
2.d	The circular economy, including waste prevention and recycling	Compliance with applicable legislation is sufficient to prevent significant harm
2.e	Pollution prevention and control to air, water, or land	Compliance with applicable legislation is sufficient to prevent significant harm
2.f	The protection and restoration of biodiversity and ecosystems	Compliance with applicable legislation is sufficient to prevent significant harm
3	**Target and milestones: implementation timeline**	
3.a	why the specific milestone(s) or target(s) was(were) chosen;	The milestones and targets were chosen to monitor implementation of the investment and to evaluate its progress and success.
3.b	what the milestone(s) or target(s) is(are) measuring;	Target: The reconstruction of railway infrastructure to increase the quality and accessibility of public transport: four (4) lines reconstructed for dispatching and one (1) for electrification. Milestones: 31.12.2029: Public procurement is finished, and the contractor is selected for the construction phase. The agreement is signed to enable construction. 31.12.2032: Construction of all lines is completed; the projects are handed to ŽSR to operate. All lines are in operation (one track electrified and 4 tracks using a new dispatching system). Targets: 4Q 2032 All lines in operation: 154.7 tracks with new dispatching system, 9.8 km of track electrified.
3.c	how this will be measured, what methodology and source will be used,	The targets will be measured by the ŽSR and the Ministry of Transport.

	Element	Description
	and how the proper achievement of the milestone(s) or target(s) will be objectively verified;	
3.d	what is the baseline (starting point) and what is the level or specific point to be reached; (Quantified value of the targets)	ŽSR manages 3 630 km of tracks of which 1 585 is electrified[65]. According to the Ministry of Transport, the proposed lines are in poor technical condition and the dispatching equipment is insufficient to ensure smooth train traffic. The electrified Prešov - Kapušany line will allow for better occupancy by trains. The measure is expected to achieve the following (see also 1b): • Dispatching of 154.7 km of lines • Electrification of 9.8 km of lines • Earning 18 minutes of time savings in total after the dispatching system reconstruction (on 4 lines) • Increasing the number of passengers by 4.7% in average after dispatching system reconstruction (on 4 lines)
3.e	by when it will be reached (by quarter and year)	Reconstruction of all lines completed and in operation by the end of 2032. We expect the preparation phase (see also milestones in 3b) from Q12026 to Q4 2029 and the construction phase in Q12030 to Q42032. *Milestone of full operation of all lines should be reached in Q4 2032.*
3.f	who and which institution will be in charge of implementing, measuring and reporting.	ŽSR and the Ministry of Transport will be responsible for the implementing, measuring and reporting of the measure as the full competence and subsequent operation lies with the two entities.
3.g	Where applicable, a timeline for gradual reduction of support	N/A
4	**M&Is Implementation and Monitoring**	
4.a	Who and which institutions will be in charge of implementation,	ŽSR and the Ministry of Transport will be responsible for the implementing, measuring and reporting of the measure as the full competence and subsequent operation lies with the two entities.

[65] ŽSR (2024). 2023 Annual Report – Railways of the Slovak Republic, table on page 18. https://www.zsr.sk/files/o-nas/vyrocne-spravy/vyrocnasprava2023.pdf.

	Element	Description
	measuring and reporting	
4.b	Determine key performance indicators	KPIs: • Tracks reconstructed. • Improved travel time.
4.c	Describe rules to monitor the achievement of the objectives	The implementing bodies, the Ministry of Transport and ŽSR, will provide an annual report accounting for the achieved milestones within the set timeline.
5	**Financing and costs**	
5.a	Methodology, underlying assumptions and their justification	Cost assumptions are based on the price of existing infrastructure projects of ŽSR. Data were provided by the Ministry of Transport of the Slovak Republic. We estimate 3% of the cost for preparing the documentation and 97% for the construction. We do not expect any purchase of land/building plot and property settlement processes as these lines are not new ones and the positioning is not changing. We assume the same building costs for each year of construction phase.
5.b	Total cost of the measure/ investment	EUR 165 million Investment
5.c	Comprehensive timetable within which the costs are to be incurred	2026: EUR 1.2375 million 2027: EUR 1.2375 million 2028: EUR 1.2375 million 2029: EUR 1.2375 million 2030: EUR 53.35 million 2031: EUR 53.35 million 2032: EUR 53.35 million
5.d	Info on national contribution on total cost of M&Is	Co-financing 25% from national funds, amounting EUR 41.25 million.
5.e	Info on additional financing from other Union instruments that could be applicable to the M&Is	No other Union financing.
5.f	Info on envisioned financing from private sources	No.
5.g	Justification on plausibility and responsibility of estimated costs	Cost assumptions are based on the price of existing infrastructure projects of ŽSR. Data were provided by the Ministry of Transport of the Slovak Republic
6	**In the case of M&Is to increase uptake of zero and low-emission mobility and transport, criteria for identifying eligible beneficiaries**	

	Element	Description
6.a	Time limit for the M&Is and a justification on the basis of quantitative and qualitative explanation on how the measure counteracts increases in price of transport and heating fuel	This investment addresses ETS2-related cost increases by improving public transport – railways infrastructure in the transport poor regions. It increases the accessibility of the public transport and its quality (including savings in travel time) and thus reduces reliance on private vehicles and fossil fuel, thus lowering household costs.

Table 0-9 Investment 9: Scheme for building bicycle infrastructure

	Element	Description
1	General description of the M&I A detailed description of measures and investments based on desk research and information gathered from stakeholders	
1.a	The nature, size and type of the measure- including if it is new or existing	The investment falls under the "Bicycle infrastructure: Develop safe and attractive cycling infrastructure, including bike paths separated from motor traffic, and on-street bike lanes in lower-traffic streets" category. It targets low-income and middle-income citizens and households that live in transport poor regions. The project should be located in the transport poor regions based on the Institute of Environmental Policy index on transport poverty. The investment is focused on the building and construction of new bicycle paths and related infrastructure in Slovakia. The investment should include bicycle racks and shelters and traffic counters. Where possible, cycling paths may be extended for paths for pedestrians to enlarge the impact of the investment on the non-motorised modes of transport users. The investment will target vulnerable transport users by improving access to safe, affordable, and sustainable transport options in transport-poor regions where reliance on private car ownership is one of the primary modes of transportation. From a spatial perspective, data shows that most of the active mobility is carried out within the city or within rural areas, but not for journeys that connect cities or cities and rural areas. The support to the expansion of bicycle infrastructure should motivate and contribute to the mode shift of citizens towards a non-motorised mode of transport, by providing new connections to economic centres, institutions, important residential areas, or important industrial areas where the intensity of transport of citizens is high. A secondary effect will be the reduction of emissions and the development of active transport in Slovakia and the improvement of traffic security for bicyclists, mostly driven by municipalities and regional administrations.

	Element	Description
		Currently, there are 18 608.64 km of bicycle paths in Slovakia (including tourist paths) and only 1 358.64 km are dedicated to daily use and commuting purposes. In Slovakia, the share of bicycle transport on the total modal split was 8% and the share of distance by bicycle was 3% of the total length of travel (share of kilometres driven). The average length of journeys travelled by bicycle was around 4 km. The use of bicycle as a mode of transport for journeys with a distance up to 5 km[66] is high compared to other modes[67]. We propose using the following criteria when assessing the project and by selection of project for support. • **The location of the project in the transport poor region is preferable, at least 75% of the funding shall be used in transport poor region.** The Institute of Environmental Policy index[68] on transport poverty may be used to define transport poor region. • **Public transport connectivity.** Prioritisation of paths that connect public transport stop or point with the economic centre, institutions, important transport poor or underserviced residential areas, or important industrial areas where the intensity of transport of citizens is high is recommended. This criterion should be used to integrate cycling infrastructure with other M&Is in the transport component of the SCF, mainly the fleet change of the public transport vehicles to electric ones, and the investment in railway infrastructure. We consider connecting relevant M&Is as one of the main conditions for assessment or even as a condition for the eligibility of the cycling infrastructure projects. • **Cost efficiency of the project.** The ratio of costs to the length of the path in km may be used (see article on the CBA by the Ministry of Transport). • **Other benefits:** for example, the double use of path for bicycle and pedestrians. Part of the investment should be dedicated to technical support to the eligible institutions for preparing projects of bicycle paths. This support should be covered centrally and should include preparation of feasibility studies; technical project plans; advice in the route selection; and other support to gain all permits needed for construction. Consequently, the recipient obtains all the technical documentation needed for applying for the

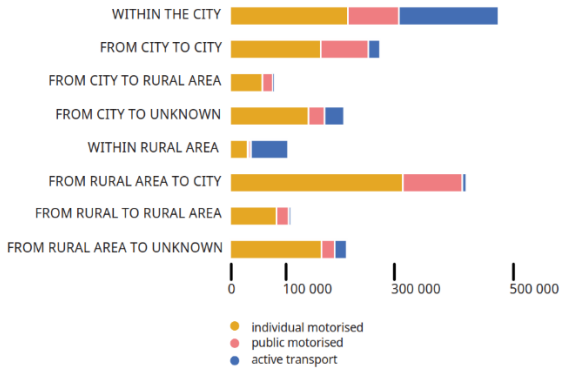
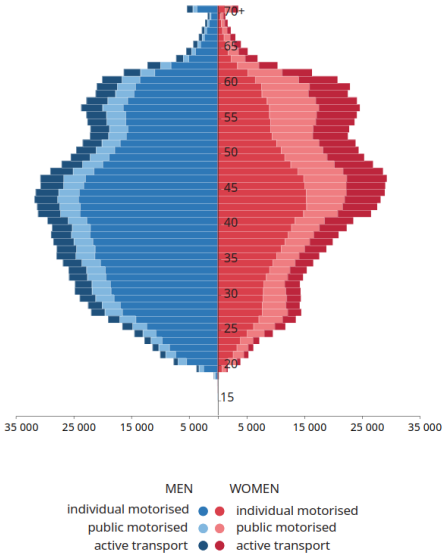
[66] Institute of Transport Policy (2020). How we travel – The mobility behaviour of the population. https://www.mindop.sk/ministerstvo-1/doprava-3/institut-dopravnej-politiky/publikacie/komentare.
[67] See chart number 6 at the page 10 of the above-mentioned study.
[68] For the construction of the index see the study of the Institute of Environmental Policy. Institute of Environmental Policy (2025). I don't have a car, I don't have a bus. https://www.minzp.sk/files/iep/komentare/2025_2_mobilita_dopravna_chudoba_tags.pdf.

	Element	Description
		overarching financing scheme under this investment. In case of not being successful under the scheme, the documentation is possible to use under other schemes or for funding by the recipient itself. The selection process of eligible recipients should be based on the relation to the other M&Is of the transport component of the SCF and on the belonging to the transport poor region, such as M&Is 5, 6, and 8. As a result, municipalities and regional authorities will be willing to prepare project documentation, as many smaller cities or villages do not have financial sources for the preparations of the projects and are not willing to spend budget without guarantee of the final approval of the investment. Some smallest municipalities do not even have sources to cover expenses on technical documentation. Eligible recipients for the investment would therefore be self-governing regions, municipalities, and ŽSR. We propose using of some criteria when assessing the project and by selection of project for support. The criteria should be: • Location of the project in the transport poor region. The Institute of Environmental Policy index on transport poverty may be used to define transport poor region. • Preferring building paths that connect public transport stop or point with the economic centre, institutions, important residential areas, or important industrial areas where the intensity of transport of citizens is high. Regarding other measures in the transport component, mainly the fleet change of the public transport vehicles to electric ones, and investment in railway infrastructure. We consider this criterion as main condition or even excluding condition for the cycling infrastructure projects. • Cost efficiency of the project. The ratio of costs to the length of the path in km may be used (for example the methodology for CBA from the Ministry of Transport). • Other benefits: for example, the double use of path for bicycle and pedestrians. For the evaluation the existing methodology[69] (based on the CBA) under the Ministry of Transport for the use in calls by the Resilience and Recovery Plan is suggested to use. The investment is additional to existing scheme of the Ministry of Transport and schemes under EU funds (Programme Slovakia and Resilience and recovery plan). There is still demand for such a type of investment in Slovakia and it is mainly driven by municipalities and self-governing regions.

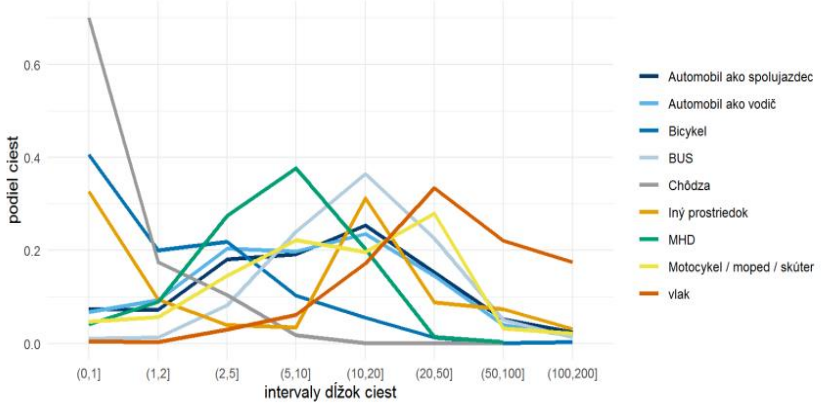
[69] Ministry of Transport (n.d.). Methodology for assessing, evaluating and prioritising cycling infrastructure projects. https://www.mindop.sk/ministerstvo-1/doprava-3/cyklisticka-doprava-a-cykloturistika/plan-obnovy-a-odolnosti-poo

	Element	Description
1.b	Objective of the measure, defining target groups, results and impacts, including on reducing fossil fuel dependency	The investment's objective is the extension of the existing bicycle paths infrastructure in the Slovakia and the provision of an active transport mode for citizens as an alternative mode to using private cars, specifically in transport poor regions. The goal is the construction of new bicycle paths for daily travel purposes with related infrastructure and technical support for beneficiaries for project technical documentation. The construction of cycling infrastructure has a secondary objective to unlock the modal shift to an active, non-motorised mode of transport as an alternative for individual motor transport. This shift will lead to lowering the demand and consumption of fossil fuels and thus lowering emissions in the transport sector. According to the ETS 2 impact assessment, vulnerable groups consist primarily of those using private cars to commute without an alternative[70]. The investment is targeted at transport poor users, more granularly at the low and middle-income groups of population in transport poor regions. Low-income citizens may profit from the investment as cycling, as a mode of transport, is relatively cheap (compared to fossil fuelled modes of transport) and, as a non-motorised mode of transport, it is not affected by the impact of the EU ETS2 on fossil fuel prices. It is expected that transport poor regions will benefit from the scheme by providing citizens an alternative to using other modes, mostly private cars. The investment is targeting transport users willing to change use of private cars towards use of bicycle, pedestrian or other forms of non-motorised transport or transport using bicycle paths by electric scooter or electric bicycle.
1.c	How the M&I addresses effects of ETS2 on vulnerable groups	The study by the Institute of Transport Policy by the Ministry of Transport shows that the share of bicycle journeys was 8% and the share of distance by bicycle was 3% of total length of the travelling. Average distance by bicycle was around 4 km. Also, the use of bicycle mode is high compared to other modes in journeys for distances up to 5 km. Finding in DLV2 is that the impact of ETS2 costs will have to be tackled especially for those using private cars to commute and do not have any alternative. From the spatial perspective, data shows that most of the active mobility is carried out within city or within rural areas. Based on all mentioned findings, for the most effective addressing of the effects of introducing the EU ETS2, the measure should be designed: • To connect within urban points, • To connect within rural points,

[70] See figure 3-45 of the Deliverable 2 and summary of impacts in 3.3.4.

Element	Description
	• To be up to 5 km long form the point of interest (school, hospital, industry park, public transport stop/terminal, residential area, etc.) to the other one. By providing more significant alternative for using car, the more important effect will investment provide for the citizens and more benefits the citizen may gain. Commuting to work by area and way of transport (Figure 3 41, DLV2)  Inhabitants are predominantly using individual motor/car transportation to get from rural to urban areas. This share of the population will be the most affected by the increase in ETS2. Commuting to work by age and sex (Figure 3 40, DLV2)  Individual car transport (the most affected by ETS2) is predominantly used by men aged between 30 and 45 years. Women are more likely to use public or individual non-motorised transportation. Therefore, they could be less exposed to the impact of ETS2 on transport costs.

	Element	Description
		Distribution of transport modes[71] *The study by the Institute of Transport Policy by the Ministry of Transport shows that the share of bicycle journeys was 8% and the share of distance by bicycle was 3% of total length of the travelling. Average distance by bicycle was around 4 km. As it is visible from the figure, the use of bicycle mode is high compared to other modes in journeys for distances up to 5 km.*



Dopravný prostriedok	Počet ciest	Podiel ciest	Podiel najazdených km	Priemerná dĺžk
Automobil ako spolujazdec	3516	15%	23%	18.18
Automobil ako vodič	8067	34%	47%	15.81
Bicykel	1911	8%	3%	4.01
BUS	1069	5%	8%	20.06
Chôdza	6638	28%	3%	1.40
Iný prostriedok	52	0%	0%	16.37
MHD	1679	7%	5%	7.89
Motocykel / moped / skúter	114	0%	1%	19.24
vlak	510	2%	10%	54.86

		The impact of ETS2 costs will have to be tackled especially for those using private cars to commute and do not have any alternative (finding from DLV2).
1.d	Implementation – including how and at which administration level and incorporate recommendations for addressing foreseeable implementation challenges	The main authority for the transport is the Ministry of Transport of the Slovak Republic. The investment is proposed for self-governing regions, municipalities, and ŽSR. Many small municipalities do not have sufficient funding for the preparation of the documentation needed for requesting the funding from various schemes and funds. They hesitate to prepare it as there is not guarantee these expenses will be considered as sunk. Also, small municipalities do not have enough financial resources even to cover these expenses. Therefore, we propose technical support to tackle this

[71] Institute of Transport Policy (2020). How we travel – The mobility behaviour of the population. https://www.mindop.sk/ministerstvo-1/doprava-3/institut-dopravnej-politiky/publikacie/komentare.

	Element	Description
		problematic issue to help municipalities to cover expenses for the preparation phase of the projects. Challenges of the investment are related to the process of preparation technical documentation and to the process of public procurement for construction phase. To challenge first issue technical support is proposed as a part of the investment. For the successful process of public procurement, municipalities and self-governing regions need to dedicate their experts or get professional agency for the procurement.
1.e	Gender aspect – how gender inequality is addressed (if applicable)	The new bicycling path and routes are alternative for other modes of transport, mostly individual car mobility. The usage of private and public modes of transportation is gendered in Slovakia. Men tend to use private cars to commute and providing available alternative may cause men to be motivated to decrease their use of private cars. Women seem to rely more on public transport and non-motorised transport. Providing better network of bicycling paths may increase availability and attractiveness of cycling mode even more compared to current status quo.
1.f	Identify key success factors and remaining risks and challenges (+ provide recommendations on how to overcome/mitigate them)	Success factors: • New bicycle paths for daily commuting in Slovakia. • Connections of municipalities and important point of interests by cycling infrastructure, including public transport stops and terminals. Subsequently increase in the percentage of citizens using non-motorised modes of transport. Risk factors: • The concerns of municipalities regarding preparing technical documentation and related expenses. • Ensuring the quality of project documentation and technical preparation of the project. • Ensuring an efficient public procurement process. For more details see section 1d. To mitigate the risk factors, the quality of the documentation for public procurement is crucial. The documentation should therefore be based on successful public procurement processes for building and construction of bicycle paths funded by other governmental od EU sources. To mitigate risk factor regarding preparation of the preparation of the technical documentation and funding for it, the investment includes technical support for municipalities.
1.g	Additionality assessment	There are schemes in Slovakia for building bicycle infrastructure funded by Programme Slovakia (operational programme of EU funds), by Recovery and Resilience Fund and by schemes of the

	Element	Description
		Ministry of Transport of the Slovak Republic (state budget). From previous EU programmes (Integrated regional programme and INTERREG) was spent in total amount of EUR 120 million. The call from the budget of the Ministry of Transport in 2021 and call for schools were allocated in the amount of EUR 13.8 million. 76 projects were supported from the Resilience and Recovery Plan in the amount of approximately EUR 74 million (the total allocation is EUR 102 million). Recovery and Resilience Plan lasts until the half of the year 2026. In Programme Slovakia, the call from the measure 2.8.2 was opened in 2024 with the allocation of EUR 84 million. The Programme Slovakia will be finished in 2027. Proposed scheme under SCF is targeting only EV buses and trains and related charging infrastructure for busses compared to the scheme funded by the EU.
2	Alignment of M&I with DNSH principles in accordance with Article 17 of Regulation (EU) 2020/652 Information on how measures and investments included in the component comply with the principle of DNSH within the meaning of Article 17 of Regulation (EU) 2020/852[72]	
Approach 1	**Are there any activities and/or assets under this measure or investment aligned with one or several sector-specific annexes?**	Yes, the investment is aligned with activity T13 (infrastructure for zero-emission private mobility) of the Annex to the technical guidance.
Approach 2	Are there activities and/or assets under this measure or investment not covered by one or several sector-specific annexes and that do not rely on the alternative approaches (see rows below)	Not applicable, approach 1 followed.

[72] European Commission. (5 March 2025). Commission Notice – Technical guidance on applying the 'do no significant harm principle' under the Social Climate Fund Regulation. https://climate.ec.europa.eu/document/download/2f3269ea-fb02-4481-a1d5-3453ba3172ea_en?filename=c_2025_880_part_1_en.pdf.

	Element	Description
Equivalence	Are there activities and/or assets under this measure or investment aligned with the EU Taxonomy (substantial contribution) and DNSH technical screening criteria?	Not applicable, approach 1 followed.
	Is this measure or investment a financial product implemented under the InvestEU Member State compartment?	Not applicable, approach 1 followed.
	Does the measure / investment have any significant foreseeable impact on…	
2. a	Climate change mitigation	Compliance with applicable legislation is sufficient to prevent significant harm
2. b	Climate change adaptation	Compliance with applicable legislation is sufficient to prevent significant harm
2. c	The sustainable use and protection of water and marine resources	Compliance with applicable legislation is sufficient to prevent significant harm
2. d	The circular economy, including waste prevention and recycling	Compliance with applicable legislation is sufficient to prevent significant harm
2. e	Pollution prevention and control to air, water, or land	Compliance with applicable legislation is sufficient to prevent significant harm
2.f	The protection and restoration	Compliance with applicable legislation is sufficient to prevent significant harm

	Element	Description
	of biodiversity and ecosystems	
3	**Target and milestones: implementation timeline**	
3.a	why the specific milestone(s) or target(s) was(were) chosen;	The milestones and targets were chosen to monitor the implementation of the investment/scheme and to evaluate its success while improving the accessibility of the non-motorized mode of transport. The targets and milestones are set to track the progress of preparation of the technical and project documentation and building/construction of bicycle infrastructure.
3.b	what the milestone(s) or target(s) is(are) measuring;	Milestones: 1.1.2026: Scheme for the investment in bicycle paths and related infrastructure, including part on the technical support is finalized and in force. 31.12. 2026: Public procurement for the provider of the technical support for eligible organization under the scheme is finished and the winner is chosen. 31.12.2027: First public procurements for building bicycle paths (with already prepared project documentation and permits) are finished. 31.12.2029: All expected numbers of project documentation/supports have been already prepared and delivered to the eligible recipients. 31.12.2030: All projects have been supported, the target of final length of the new bicycle paths are fulfilled. Targets: • Extension of the length of the bicycle paths by new ones: 200 km. • Technical support provided to 100 recipients. Detailed information on the different targets and when they will be reached can be found in 3.e.
3.c	how this will be measured, what methodology and source will be used, and how the proper achievement of the milestone(s) or target(s) will be objectively verified;	The targets will be measured by the Ministry of Transport of the Slovak Republic. The data will be provided by municipalities, self-governing regions and ŽSR (bicycle counters funded, will be used to measure the impact and performance of the investment, and using for the planning of the development of the non-motorized transport policies).
3.d	what is the baseline (starting point)	Overall length of bicycle paths in Slovakia: 18 608.64 km. - Dedicated for tourism and long-distance touring paths: 17 250 km.

	Element	Description
	and what is the level or specific point to be reached; (Quantified value of the targets)	- Dedicated to daily use and commuting purposes: 1 358.64 km.
3.e	by when it will be reached (by quarter and year)	We expect to reach the targets in 4Q 2030. Targets per year are as follows: 4Q 2026: 20 km of paths and related infrastructure and support to 15 potential recipients 4Q 2027: 40 km of paths and related infrastructure and support to 35 potential recipients 4Q 2028: 50 km of paths and related infrastructure and support to 30 potential recipients 4Q 2029: 50 km of paths and related infrastructure and support to 20 potential recipients 4Q 2030: 40 km of paths and related infrastructure
3.f	who and which institution will be in charge of implementing, measuring and reporting.	The Ministry of Transport and will be the implementing bodies.
3.g	Where applicable, a timeline for gradual reduction of support	Not applicable.
4	**M&I Implementation and Monitoring**	
4.a	Who and which institutions will be in charge of implementation, measuring and reporting	The Ministry of Transport will be the implementing bodies. Self-governing regions and municipalities and ŽSR will provide data for reporting purposes.
4.b	Determine key performance indicators	KPIs: • Length of the bicycle paths build/constructed. • Number of technical support provided for potential recipients. • Change in modal shift to non-motorized transport.
4.c	Describe rules to monitor the achievement of the objectives	The implementing bodies, the Ministry of Transport will provide an annual report accounting for the achieved milestones within the set timeline.

	Element	Description
5	**Financing and costs**	
5. a	Methodology, underlying assumptions and their justification	Cost assumptions are based on experience of the similar schemes under the Ministry of Transport of the Slovak Republic and by schemes under the EU funding (Programme Slovakia and Recovery and Resilience Plan). Assumption is based on the experience of the stakeholders, mainly the Cycling coalition (non-profit advocacy expert group, in Slovak "Cyklokoalícia). Basic assumptions and estimations are as follows: • Unit price of on km of standard bicycle path: EUR 516 755.42 • Unit price of 1 traffic counter with installation: EUR 9 340 • Unit price of 1 bicycle rack: EUR 141.24 • Unit price of 1 bicycle shelter: EUR 6 043.99 • Average unit price for 1 technical support per recipients including all possible documentation: EUR 18 201.42 • Expected total length of new bicycle paths: 200 km • Expected number of traffic counters: 40 • Expected number of bicycle racks: 200 • Expected number of bicycle shelters: 40 • Expected number of technical supports: 100
5. b	Total cost of the measure/ investment	The total cost of the investment is EUR 105 814 834.14.
5. c	Comprehensive timetable within which the costs are to be incurred	2026: EUR 10 672 490.51 2027: EUR 21 435 988.13 2028: EUR 26 544 715.64 2029: EUR 26 362 701.44 2030: EUR 20 798 938.43 Calculation is based on the assumptions in 5a and targets in 3a
5. d	Info on national contribution on total cost of M&I	Co-financing 25% from national funds, amounting EUR 26 453 708.54.
5. e	Info on additional financing from other Union instruments that could be applicable to the M&I	The SCF funds would be used as complementary to the other programs for building/construction bicycle infrastructure (Recovery and Resilience plan is ending in 2026). Technical support is the new aspect of the scheme not included in previous schemes or programmes. From previous EU programmes (Integrated regional programme and INTERREG) was spent in total amount of EUR 120 million. The call from the budget of the Ministry of Transport in 2021 and call for schools were allocated in the amount of EUR 13.8 million. 76 projects were supported from the Resilience and Recovery Plan in the

	Element	Description
		amount of approximately EUR 74 million (the total allocation is EUR 102 million). Recovery and Resilience Plan lasts until the half of the year 2026. In Programme Slovakia, the call from the measure 2.8.2 was opened in 2024 with the allocation of EUR 84 million. The Programme Slovakia will be finished in 2027. Proposed scheme under SCF is targeting only EV buses and trains and related charging infrastructure for busses compared to the scheme funded by the EU.
5.f	Info on envisioned financing from private sources	No.
5. g	Justification on plausibility and responsibility of estimated costs	Cost assumptions are based on experience of the similar schemes under the Ministry of Transport of the Slovak Republic and by schemes under the EU funding (Programme Slovakia and Recovery and Resilience Plan). Assumption is based on the experience of the stakeholders, mainly the Association of Self-Governing Regions of Slovakia (abbreviated as "SK8") and Cycling coalition (non-profit advocacy expert group, in Slovak "Cyklokoalícia).
6	**In the case of M&Is to increase uptake of zero and low-emission mobility and transport, criteria for identifying eligible beneficiaries**	
6. a	Time limit for the M&I and a justification on the basis of quantitative and qualitative explanation on how the measure counteracts increases in price of transport and heating fuel	This investment addresses ETS2-related cost increases by improving availability of non-motorized mode of transport by bicycle paths as it may be considered as cheaper alternative of using other means of transport. Modal shift to cycling and use of non/zero-emission mode of transport reduces reliance on private vehicles and fossil fuel, thus lowering household costs and expenses, so lowering the expected burden of ETS2. We expect the low-income and middle-income households and individuals will benefit mostly from the investment.

Annex C – Further methodological detail

Costs and impacts

As part of the shortlisting and selection process a light-MCA was carried out (see Chapter **Chyba! Nenašiel sa žiaden zdroj odkazov.**), following this a more fully-fledged assessment of costs and impacts was carried out (see Chapter **Chyba! Nenašiel sa žiaden zdroj odkazov.**). In this Annex we provide further details on some of the key aspects and indicators used in these assessments.

Multipliers Analysis Methodology

As part of the light MCA multipliers of the economic (GVA) and employment impacts (jobs) are provided. These estimate the likely impact of a measure per million EUR spent on it. The following text details how these multipliers were determined.

The multipliers analysis methodology is based on Input-Output (IO) economic analysis, following a static multiplier approach to estimate the impacts of additional demand generated by investment measures on GVA and Employment. This approach is particularly useful in assessing the economic and employment effects of policy interventions, such as energy efficiency investments, or other specific investments, by quantifying how additional demand translates into economic growth and job creation.

A key step in this methodology is the calculation of Leontief multipliers based on the IO-Table of each MS. These multipliers express the economic effects of e.g. EUR 1 million of additional final demand in specific economic activities. The GDP multiplier estimates the GVA generated per unit of new demand, while the employment multiplier quantifies the number of jobs created per unit of new demand. The multipliers are derived from the structure of sectoral interdependencies in the economy, as represented in the IO tables.

The multipliers consider direct and indirect impacts while excluding induced effects, such as variations in income levels and consumer spending. The methodology operates under specific assumptions and limitations. It assumes no structural changes in the economy, meaning that it does not take into account:

- decline in activity in certain sectors;
- changes in prices, wages, or fiscal balances;
- shifts in trade resulting from variations in energy imports and exports; and
- long-term dynamic effects such as productivity shifts, technological growth or market adjustments, i.e. the analysis is static.

Another important aspect of this methodology is the sectoral allocation of investment expenditure, which defines the effect of each investment type. This sectoral allocation describes the sectors that deliver investment goods and services, and as such it defines which are the sectors to see an increasing demand in case of each of the investments or additional expenditures associated with the implementation of measures. The allocation is determined based on:

- the structure of economic activities as outlined in the specific announced intervention measures;
- the domestic share of products and services; and
- expert judgment to estimate the likely sectoral distribution of demand.

The methodology relies on Symmetric Input-Output Tables (SIOTs), with sectoral resolution aligned e.g. for EU MS: NACE Rev. 2 (64 sectors, 2-digit level). These tables serve as the foundation for estimating how economic activities interact and how demand shocks propagate through different sectors of the economy.

In practice, this methodology is applied to assess the economic and employment impacts of investment policies, particularly in energy efficiency measures. It provides an ex-ante assessment of planned policy interventions, offering valuable insights into how investment decisions impact regional economies and labour markets.

Costs and impacts

The impact assessment of selected M&Is was conducted using a combination of qualitative and quantitative methodologies to evaluate their effectiveness in mitigating the impacts of ETS2 on vulnerable groups and their contribution to SCP objectives. The assessment began with the identification of key performance indicators (KPIs), ensuring alignment with Annex IV of the SCF Regulation. Metrics included reductions in the amount of vulnerable households and individuals, reductions in household energy costs, improvements in energy efficiency, CO_2 emission reductions, and socioeconomic benefits for vulnerable groups.

The impact assessment utilised data from established modelling tools (PRIMES and GEM-E3 models, SEEK-EU model), data from desk research and other sources to estimate costs, and energy and emissions impacts. Additionally multipliers were derived from the modelling tools to provide a high-level estimate of economic (GVA and employment) impacts.

For building-related M&Is the energy savings were calculated using a bottom-up methodology that involved calculating the (final) energy consumption of affected households prior to the M&Is implementation and the one after the intervention. The technology assumptions associated with the different technologies (e.g. energy efficiency of the equipment) were then introduced to define the energy consumption after the intervention. The emissions saved through the intervention were calculated based on the emission factor and the calculated energy

consumption prior and after the intervention. The above refer to energy and emissions savings at the premises of the household affected (i.e. emissions saved are calculated based on the emissions factor of the equipment used for the specific uses in the households). In certain cases, e.g. for the case of solar PV and batteries, where the energy saved is electricity, the emissions saved have been calculated from the energy system's perspective (i.e. emissions saved from the need to produce less electricity in the supply side). Similarly, for transport-related M&Is energy and emissions savings are estimated with the use of a bottom-up methodology that considers (final) energy consumption of affected households prior to the M&Is implementation and the one after the intervention. In certain cases the measures may interact with each other, but this is not take into account. In the case, for example, of EV charging points we assume that an uptake of EVs is enabled due to the instalment of charging points, and attributed the savings from the change in vehicle stock from ICEs to EVs to the charger.

Unit cost, energy and emissions impact estimates

In the following text we detail the standardised central estimates of costs and impacts for various categories of measures and explain the sources and how these were derived. In Chapter **Chyba! Nenašiel sa žiaden zdroj odkazov.**, where the costs and impacts of the M&Is are presented these values may be used, it is also the case that measure specific estimates are used instead based on better, more specific data available at country level. These choices are detailed and explained in the **Chyba! Nenašiel sa žiaden zdroj odkazov.** chapter.

Solar PV

The unit for this category of measure is kW of installed capacity, therefore costs in EUR per kW, energy savings in kWh per kW and emissions reductions in tCO_2e per kW.

For Slovakia the cost estimation is 1 527 EUR/kW installed Solar PV capacity. The technological cost assumptions are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan (https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en). The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis can be found here (https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip) and were published in February 2024. The cost estimates refer to the year 2030, incorporating technological growth assumptions. The cost estimates further consider the literature (e.g. IRENA report "Renewables - The True costs ") in terms

of installation cost differences between MS, as well as differences in average wages between MS.

The energy savings are estimated at 25 kWh of electricity per year per kW installed Solar PV, this estimation is based on the average installation size of PV that should be able to handle running most of the appliances in an average-sized home. Therefore the energy savings represent the energy consumption of the appliances that will be covered by the PV.

The emissions savings are estimated at 0.005 tCO_2e per year per kW installed capacity, this estimation is based on the emissions saved from the energy system's perspective (i.e. emissions saved from the need to produce less electricity in the supply side), therefore using the emissions factor in the power generation sector.

Heat pump

The unit for this category of measure is on a per heat pump basis, therefore costs in EUR per heat pump, energy savings in kWh per heat pump and emissions reductions in tCO_2 per heat pump.

For Slovakia the cost estimation is EUR 9 538/heat pump. The technological cost assumptions are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan[73]. The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[74]. The cost estimates refer to the year 2030, incorporating technological growth assumptions. The cost estimates further consider the literature (e.g. considering findings from IRENA and IEA reports on District Heating) in terms of installation cost differences between MS, as well as differences in average wages between MS.

The energy savings are estimated at 5 839 kWh of electricity per year per heat pump installation, this estimation is based on final the energy consumption of the system that the heat pump will replace (usually a boiler).

The emissions savings are estimated at 0.005 tCO_2e per year per heat pump installed, this estimation is based on the emissions of the system the heat pump will replace (based on the type of fuel of the system).

[73] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.
[74] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.

Boiler replacement

The unit for this category of measure is on a per boiler basis, therefore costs in EUR per boiler, energy savings in kWh per boiler and emissions reductions in tCO_2e per boiler.

For Slovakia the cost estimation is EUR 4 191/boiler. The technological cost assumptions are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan[75]. The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[76]. The cost estimates refer to the year 2030, incorporating technological growth assumptions. The cost estimates further consider the literature (e.g. reports " CH Boilers - Solar Heat Europe") in terms of installation cost differences between MS, as well as differences in average wages between MS.

The energy savings are estimated at 1 550 kWh of electricity per year per boiler installation, this estimation is based on the final the energy consumption of the system that the boiler will replace. The replacement here involves the upgrade of an existing boiler with a more energy efficiency one or the upgrade from a stove/oil boiler to a less emitting one (shift from e.g. oil to gas).

The emissions savings are estimated at 0.9099 tCO_2e per year per boiler installation, this estimation is based on the emissions of the of the system that the boiler will replace, considering the fuel shift that takes place in each case as well as the efficiency upgrade of the system.

Buildings appliances (EE)

The unit for this category of measure is on a per household basis, therefore costs in EUR per household , energy savings in kWh per household and emissions reductions in tCO_2e per household.

For Slovakia the cost estimation is EUR 611/household. The cost represents the upgrade of white and black appliances with more energy efficient ones. The technological cost assumptions are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan[77]. The literature

[75] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.
[76] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.
[77] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.

review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[78]. The cost estimates refer to the year 2030, incorporating technological growth assumptions.

The energy savings are estimated at 27 kwh/unit/year per household, this estimation is based on the reduction of final energy consumption of electrical appliances after the upgrade with more energy efficient ones (e.g. upgrade to class A+ or more).

The emissions savings are estimated at 0.0054 tCO_2e per year per household, this estimation is based on the reduction of electricity consumption and the emission factor of the power generation, as the energy saved involves reduction of electricity consumption, therefore reduction of electricity production.

Battery

The unit for this category of measure is on a per battery basis, therefore costs in EUR per battery, energy savings in kWh per battery and emissions reductions in tCO_2e per battery.

For Slovakia the cost estimation is EUR 4 391/battery. The technological cost assumptions are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan[79]. The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[80]. The cost estimates refer to the year 2030, incorporating technological growth assumptions.

The energy savings are estimated at 321 per battery, this estimation is based on the assumption that the battery would be used to cover the essential loads like refrigerators and lighting in a household. Therefore the calculated energy savings involve reduction in electricity consumption coming from the electricity consumption of such appliances that will be covered by the battery.

[78] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.
[79] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.
[80] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.

The emissions savings are estimated at 0.0649 tCO_2e per year per battery, this estimation is based on the emissions saved in power generation due to the decrease of electricity consumption and therefore generation.

Medium Renovation (applying to building envelope)

The unit for this category of measure is m2 of the building, therefore costs in EUR per m2, energy savings in kWh per m2 and emissions reductions in tCO_2e per m2.

For Slovakia the cost estimation is EUR 256/m2 of the building. The medium renovation represents simple interventions in the building envelope like for example the upgrade of windows and a thick insulation layer in the roof. The technological cost assumptions are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan[81]. The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[82]. The cost estimates refer to the year 2030, incorporating technological growth assumptions.

The energy savings are estimated at 81 kWh per year per m2 , this estimation is based on the reduction of useful energy consumption for heating that is a result of the upgrade of the building envelope. This is then converted to final energy consumption reduction using the upgraded efficiency of the equipment used for heating that is assumed as part of the intervention (upgrade from oil to gas).

The emissions savings are estimated at 0.01 tCO_2e per year per m2, this estimation is based on the reduction of final energy consumption calculated above and the emissions factor of the equipment used for heating.

Deep Renovation (applying to building envelope)

The unit for this category of measure is m^2 of the building, therefore costs in EUR per m2, energy savings in kWh per m^2 and emissions reductions in tCO_2e per m^2.

For Slovakia the cost estimation is EUR 299/m2 of the building. The deep renovation represents large interventions in the building envelope like for example the upgrade of windows and the application of thick insulation into the walls and roof. The intervention may as well involve the application of a heat pump for heating, as heat pumps work more effectively in well insulated houses, while also being of a small size. The technological cost assumptions are based on recent

[81] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.
[82] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.

scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan[83]. The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[84]. The cost estimates refer to the year 2030, incorporating technological growth assumptions.

The energy savings are estimated at 103 kWh per year per m^2 , this estimation is based on the reduction of useful energy consumption for heating that is a result of the upgrade of the building envelope. This is then converted to final energy consumption reduction using the upgraded efficiency of the equipment used for heating that is assumed as part of the intervention (change from boiler to heat pump).

The emissions savings are estimated at 0.0133 tCO_2e per year per m2, this estimation is based on the reduction of final energy consumption calculated above and the emissions factor of the equipment used for heating.

Charging pole for HH and publicly available

The unit for this category of measure is a home charging pole and a publicly available charging pole. Therefore costs are presented in EUR per charging pole of AC home chargers and AC street chargers. Home chargers have a slow charging capacity of 3 kW and publicly available chargers have a semi-fast charging capacity of 22 kW. Both capital and installation costs are included. The energy savings are provided in kWh/charging pole and the emissions reduction in tCO_2 saved/charging pole. The unit costs of the charging pole include capital expenditures and installation costs. While some differentiation could be expected on installation costs across the different MS, in our analysis these are not differentiated.

For Slovakia the cost estimation is EUR 601/charging pole for HH chargers and EUR 3 267/charging pole for publicly available chargers. The technological cost assumptions are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan[85]. The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The

[83] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.
[84] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.
[85] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.

aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[86]. The cost estimates refer to the year 2030, incorporating technological growth assumptions.

The energy savings are estimated at 6 853 kWh/year per HH charging pole of HH and 29 564 kWh/year per publicly available charger. The savings are estimated based on the number of BEVs that a charging pole serves and the energy savings brought in by their deployment (see chapter below). The premise is that without the charger the BEV would not be purchased. Home charger measures assumed to fully drive purchase decision for EVs, each home charger servicing 2 BEVs. Public charger infrastructure assumed to partly drive purchase decision for EVs by reducing range anxiety while servicing 26 BEV.

The emissions savings are estimated at 4.31 tCO_2/HH charging pole/year and 18.57 tCO_2/public charging pole/year. Similar to energy savings, the emissions savings are those achieved a passenger BEV annually (see chapter below) multiplied by the number of BEVs deployed owing to the household charging poles and public charging poles.

EV passenger

The unit for this category of measure is a fully battery electric passenger (passenger EV car) EUR/passenger EV car, therefore costs are in EUR per passenger EV car, energy savings in kWh/passenger EV car per year and emissions reductions in tCO_2/passenger EV per year. The unit costs of the passenger EV car do not include any taxes or subsidies, and are the similar across MS.

For Slovakia the cost estimation is EUR 24 391/passenger EV car. Costs are representative for the medium size segment. The technological cost assumptions are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target[87]. The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[88]. The cost estimates refer to the year 2030, incorporating technological growth assumptions.

The energy savings are estimated at 3 244 kWh/passenger EV car per year. This estimation is based on the specific energy consumption of a reference ICE vehicle

[86] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.
[87] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.
[88] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.

(per vehicle km) in the existing fleet of the MS net of the specific energy consumption of a BEV in the year 2030. The reference ICE vehicle is defined based on the share of gasoline and diesel ICE in the fleet of each MS. The annual savings are estimated based on the annual vehicle-km by a passenger car by MS in the year 2030, based on PRIMES-TREMOVE.

The emissions savings represent tailpipe emissions and they are estimated at 2.14 tCO_2/passenger EV car per year. The annual emission savings of the reference vehicle are estimated based on the annual fossil fuel consumption of the reference vehicle by MS (as defined above) and the gasoline/diesel emission factor, correcting it for the biofuels participating in the fuel blend in each MS.

EV LDV - passenger

The unit for this category of measure is a full battery electric passenger van. Therefore costs are in EUR/passenger EV van, energy savings in kWh/passenger EV van per year and emissions reductions in tCO_2/passenger EV van per year. The unit costs of the passenger EV van do not include any taxes or subsidies and are the similar across MS.

For Slovakia the cost estimation is 26 085 EUR/EV van. The technological cost assumptions are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan[89]. The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[90]. The cost estimates refer to the year 2030, incorporating technological growth assumptions.

The energy savings are estimated at 8 517 kWh/passenger EV var per year. This estimation is based on the specific energy consumption of a reference ICE vehicle (per vehicle-km) in the existing fleet of the MS net of the specific energy consumption of a passenger EV van in the year 2030. As reference ICE vehicle, a diesel ICE is considered. The annual savings are estimated based on the vehicle-km by passenger vans by MS in the year2030, based on PRIMES-TREMOVE.

The emissions savings represent tailpipe emissions and they are estimated at 2.00 tCO_2/passenger EV van per year. The annual emission savings of the reference diesel ICE van are estimated based on the annual fossil fuel consumption, the

[89] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.
[90] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.

diesel emission factor, correcting it for the biofuels participating in the diesel blend in each MS.

Public transport

The unit for this category of measure is a passenger kilometres (pkm) that shifts to public transport from private transport in urban areas. Therefore costs are in EUR/pkm, energy savings are in kWh/pkm and emissions reduction in kgCO_2/pkm.

For Slovakia the cost estimation is EUR 0.32/pkm. It represents the average effective cost (i.e. annualised investment expenditures, operating costs and non-variable costs) of public transport in urban areas by vehicle kilometre taking into account the vehicle occupancy. Vehicle occupancy is based on the DG MOVE's New Mobility Patterns data.

The calculation of the average effective costs by vehicle kilometre takes into account the share buses and of tram/metro in each MS. The technology costs for buses, tram/metro that are used are based on recent scientific literature review and were validated by a dedicated stakeholders consultation that took place in the course of the preparation of the EU's 2040 Climate Target Plan[91]. The literature review involved a number of different sources that were analysed and combined to derive the cost (and efficiency) estimations that went through the stakeholder consultation. The aforementioned technology assumptions that are used as input in the PRIMES model and were used in the SCP analysis were published in February 2024[92]. The cost estimates refer to the year 2030, incorporating technological growth assumptions. The operating and non-variable costs are based on PRIMES-TREMOVE.

The energy savings are estimated at 0 18 kWh/pkm based on the energy consumption of private cars (in kWh/pkm) net of the energy consumption of buses (in kWh/pkm) and the energy consumption of metro-tram (in kWh/pkm) in 2030. The energy consumption of each transport mode by pkm is based on PRIMES-TREMOVE, by taking into account total energy demand and activity (pkm) by mode.

The emissions savings represent Tank-to-Wheel emission savings and are estimated at 0.00010 tCO_2/pkm. This estimation is based on the emissions from private cars use (in gCO_2/pkm) net of the energy consumption of buses (in gCO_2/pkm) in 2030, There are no Tank-To-Wheel emissions associated with the use of tram-metro. The CO_2 emissions each transport mode by pkm is based on PRIMES-TREMOVE, by taking into account total CO_2 emissions demand and activity (pkm) by mode.

[91] European Commission. (n.d.). 2040 climate target – Reducing net emissions by 90% by 2040. https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en.
[92] Available for download at https://climate.ec.europa.eu/document/download/e1ae0c6c-aa6a-4757-9c27-6f8bdc83bcb8_en?filename=policy_strategy_targets_2040ct_technology_assumptions.zip.

Cycling (bike purchase)

The unit for this category of measure is pkm shift from private car to active mode (such as cycling). Therefore costs are in in EUR per kW, energy savings in kWh per pkm shift from private car to active mode and emissions reductions in kgCO_2 per pkm shift from private car to active mode.

The energy savings are estimated at 0.67 kWh/pkm shift from private car to active mode based on the energy consumption of private cars (in kWh/pkm) in 2030. The energy consumption of each transport mode by pkm is based on PRIMES-TREMOVE, by taking into account total energy demand and activity (pkm) of big/medium cars.

The emissions savings represent Tank-to-Wheel emission savings and are estimated at 0.00016 tCO_2/pkm shift from private car to active mode based on the emissions from private cars use (in gCO_2/pkm) in 2030. The CO_2 emissions each transport mode by pkm is based on PRIMES-TREMOVE, by taking into account total CO_2 emissions demand and activity (pkm) by mode.

MCA: Categorisation of measures and base scoring criteria

This chapter presents the methodology used to analysed measures during the shortlisting phase (the multi-criteria assessment)

		Mitigating the impact of the ETS-2 on vulnerable groups		Cost efficiency		Reduction in fossil energy use / emission	
Category	**Includes types of measures (see below full list)**	**Score**	**Rationale/exceptions**	**Score**	**Rationale/exceptions**	**Score**	**Rationale/exceptions**
Building Renovation & Energy Efficiency	Renovations of worst-performing buildings Subsidised Renovation Grants Interest-Free Loans Targeted Tax Relief Energy efficiency programmes in social housing Support for small-scale energy efficiency measures Energy renovation fund Energy efficiency programmes for private houses and apartments Provide energy-efficient low-rent apartments Provide funding to municipalities for adapting unused buildings into social housing Public-private partnerships for financing renovations	High	In general, these measures definitely have the potential to mitigate the impact of the ETS-2 on vulnerable groups related to heating, but whether they reach the vulnerable is highly dependent on the **targeting and the strategy for administrative identification**. In general, it may be easier to target and identify owner-occupiers of single family homes, but what if the vulnerable groups comprises a lot of households and individuals in multi-family buildings. Need good identification strategy for those, as well as thinking about split incentives between landlords and tenants. Vulnerable groups are low / lower-middle income individuals and households (similar for M-E). The type of support provided is important: Direct investment support (at high rates) may be more suitable than interest-free loans and tax breaks. In addition, vulnerable groups might need targeted advise and support programs in the implementation stage. Their needs differ from non-vulnerable groups. Thus, multi-strategy is very valuable (e.g. investment support accompanied by mandatory support worker).	Medium	Energy efficiency measures cover a large range, from simple cheap measures e.g. draught exclusion, loft insulation, replacement lighbulbs, energy certificates to more expensive measures e.g. cavity wall insulation, floor insulation, replacement appliances, small renovations. Measures may also be financed to varying extents (e.g. part subsidy/grant). Average cost efficiency assumed to be medium. Score should be evaluated and may be adjusted based on specificity of measure.	High	Renovations and energy efficiency measures reduce energy consumption, which in fossil fuel-based systems directly translate in reduced fossil fuel consumption and associated emissions. Despite not switching out from fossil fuels entirely, these measures are often an important prerequisite for other measures such as installing heat pumps, due to their large impact potential. **Exceptions:** The score can be adjusted depending on the extent to which a specific measure decreases fossil fuel consumption.
Renewable Energy Support	Renewable energy integration Renewable energy communities & cooperative projects Solar energy installations on individual buildings Energy storage solutions for households & businesses Incentives for heat pumps & clean heating	Medium	ETS-2 does not cover electricity, but for renewable heat and renewable transportation, renewable electricity is needed. Therefore, together with other M&Is, these have the potential to mitigate ETS-2 impacts. Whether they reach the vulnerable is	Low	In general RES measures such as solar, batteries or heat pumps will cost EUR 5 k or more. Most often a full installation will need to be subsidised for	Medium	Renewable energy support measures imply a switch from fossil fuel energy to renewable energy, largely reducing emissions from energy use. This, however, is seen as a supporting

		Mitigating the impact of the ETS-2 on vulnerable groups		Cost efficiency		Reduction in fossil energy use / emission	
Category	**Includes types of measures (see below full list)**	**Score**	**Rationale/exceptions**	**Score**	**Rationale/exceptions**	**Score**	**Rationale/exceptions**
	sources Deployment of RES power plants and storage facilities for legal entities Encourage vulnerable people to purchase solar power plants		highly dependent on the **targeting and the strategy for administrative identification**. In the past, RES support has often benefitted higher-income households. Support for investment in heat pumps for might be differentiated by income and thus reach vulnerable houseowners, assuming they replace an old fossil fuel burner.		households in poverty or vulnerability. **Exception:** If a programme could be successful with only partial subsidy then could consider a 'Medium' score		measure in the context of the SCPs.
Heating & District Energy	Clean heating initiatives Expansion of district heating networks with renewable sources Support for district heating connections Targeted financial support for replacing fossil fuel heating systems Decarbonisation of heating at the community level Subsidies for abandoning fossil oil or gas heating Heat pump funds	High	In general, these measures definitely have the potential to mitigate the impact of the ETS-2 on vulnerable groups related to heating, but whether they reach the vulnerable is highly dependent on the **targeting and the strategy for administrative identification**. For heating system exchange, it may be easier to target and identify owner-occupiers of single family homes, but what if the vulnerable groups comprises a lot of households and individuals in multi-family buildings. For expansion of district heating, would need to prove that this covers specifically vulnerable areas and groups.	Low	Relatively expensive. Individual heating measures such as replacement boilers (hybrid heat-pumps) or heat pumps will cost EUR 5 k or more. District heating also a significant infrastructure investment. Most often a full installation will need to be subsidised for households in poverty or vulnerability. **Exception:** If a programme could be successful with only partial subsidy or expanded heat network would reach very large numbers (check if cost per connected household <5k) then could consider a 'Medium' score	High	This type of measures also involve the replacement of fossil-fuel based systems, resulting in a significant decrease of fossil fuel use and associated emissions. **Exceptions:** The score could be lower in measures that do not necessarily swap out fossil fuel use, but still greatly improve efficiency, as can be the case with district heating.
Financial Support for Energy & Transport Costs	Social tariffs for energy and transport Temporary income support for energy price increases Direct financial support for low-income households Targeted subsidies for energy poverty reduction	Medium	Together with investive measures that help households and individuals become independent from fossil fuels, financial support for energy & transport costs provide an important tool for mitigating costs for vulnerable households, at least in the short run and	Medium	Financial support to vulnerable households may need to run to hundreds of euros per household per year to be sufficient,	Low	This type of measures does not directly translate in a change of energy sources or decreases in consumption (efficiency gains).

		Mitigating the impact of the ETS-2 on vulnerable groups		Cost efficiency		Reduction in fossil energy use / emission	
Category	**Includes types of measures (see below full list)**	**Score**	**Rationale/exceptions**	**Score**	**Rationale/exceptions**	**Score**	**Rationale/exceptions**
	Funds to help vulnerable households pay for ETS2-related price impacts Payment of credit & interest for home heating renovations		temporarily until they get to use climate friendly alternatives. In order to address ETS-2 impacts in the long term, financial support should be accompanied by investment support for efficient buildings and renewable heating, as well as for climate-friendly transportation. **Targeting and the strategy for administrative identification of households, individuals and M-E receiving financial support is key.**		even if the marginal impact of the ETS2 on poverty is smaller.		
Public Transport Development & Accessibility	Public transport expansions Regional and local public transport development Investments in train stations platforms and accessibility High-class public transport projects Expansion of electric bus fleets Dedicated bus lanes for efficiency improvements National Transport Authority public transport reform	High	These measures definitely have the potential to mitigate impacts of the ETS-2 and to support independence from fossil fuels for vulnerable households in the long run. **Targeting and the strategy for administrative identification of relevant areas, lanes, etc. is key.** Ideally granular spatial data and transport network and timetable data that is coupled with socio-economic data would be employed.	Low	Transport infrastructure investments are inherently expensive. **Exceptions:** Account may be taken of the number of households/transport users potentially affected by the improvements. High user numbers or particular targeting to low income users could be scored 'Medium'.	Medium	Developing of public transport, and increases in public transport quality, can result in modal shift from less efficient modes of transportation, resulting in decreased fossil fuel consumption and associated emissions. **Exceptions:** Measures that do not develop public transport but instead focus on making it more accessible to households that do not have transport alternatives available (in transport poverty) can have a lower score, as there is no modal shift but instead there is satisfaction of previously unsatisfied demand.
Active & Micromobility (Cycling & Walking)	Active mobility infrastructure Fund for promoting cycling infrastructure Safe bicycle parking at transit hubs Purchase incentives for electric scooters, cargo bikes and bicycles Support for bicycle purchases for vulnerable groups Development of micromobility infrastructure	High	These measures definitely have the potential to mitigate impacts of the ETS-2 and to support independence from fossil fuels for vulnerable households in the long run. **Targeting and the strategy for administrative identification of relevant areas, lanes, etc. is key.** This measure will most likely target urban areas.	Low	Active mobility infrastructure investments are often expensive. **Exceptions:** Account may be taken of the number of households/transport users potentially affected by the improvements. High	High	Promotive active mobility and micromobility can also result in modal shift from less efficient modes of transportation, resulting in decreased fossil fuel consumption and associated emissions. In this case, the shift is towards modes that do not have associated direct

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					user numbers, lower cost items or particular targeting to low income users could be scored 'Medium'. Advised to also rate cheaper measures such as 'support for bicycle purchases for vulnerable groups' and similar as a 'Medium' cost efficient measure.		emissions, so the effect can be higher than in public transport measures. **Exceptions:** Measures that do not develop and promote this, but instead focus on making it more accessible to households that do not have transport alternatives available (in transport poverty) can have a lower score, as there is no modal shift but instead there is satisfaction of previously unsatisfied demand.
On-Demand & Shared Mobility	Mobility on-demand services for rural & peri-urban areas Subsidised ride-sharing and app-based transport services Carpooling and shared transport initiatives Public-private partnerships for shared mobility services Specialised taxi services for vulnerable transport users Establishing a framework for municipal vehicle use for vulnerable groups	High	These measures definitely have the potential to mitigate impacts of the ETS-2 and to support independence from fossil fuels for vulnerable households in the long run. **Targeting and the strategy for administrative identification of relevant areas, lanes, etc. is key.** Ideally granular spatial data and transport network and timetable data that is coupled with socio-economic data would be employed.	Medium	Expanding and/or subsidising use of existing services can be relatively inexpensive. However, this measure by targeting more rural areas may not treat as many users. **Exceptions:** Scoring should be adjusted to 'low' if very few users anticipated, or if significant new investments are needed to establish such services i.e. vehicle purchase costs	Low	These measures focus mainly on satisfying previously unsatisfied transport demand, resulting in little to none fossil fuel use reduction. **Exceptions:** measures that reduce the number of vehicles on the road in favour of more efficient transport options e.g. carpooling
Zero-Emission Vehicles & Infrastructure	Zero-emission vehicle incentives Fleet electrification support for public and private sector Purchase incentives for electric and hydrogen-powered trucks Development of EV charging infrastructure Electrification of public transport fleets Incentives for alternative fuel distribution infrastructure Electric vehicle leasing program for micro-enterprises	Medium	Electric vehicles are an integral part of a strategy for climate-friendly mobility. However, due to them being relatively expensive, one has to check whether a program can be designed that really benefits vulnerable households. **Targeting and the strategy for administrative identification of relevant areas, lanes, etc. is key. Targeting and the strategy for**	Low	Electric vehicle purchase is relatively expensive. As are certain infrastructure investments. For vulnerable individual transport users it is likely that large subsidies would be needed.	High	These measures focus on transitioning from fossil fuels to zero-emissions vehicles, resulting in a large decrease of fossil fuel use and emissions.

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	Support for NGOs purchasing zero-emission vehicles Vehicle scrappage programs to promote EVs & low-emission vehicles Support for private car purchases using biomethane and biodiesel		**administrative identification of households, individuals and M-E receiving financial support is key.**		**Exception:** cases where only a small subsidy is provided, for example for M-E, may be scored as 'Medium'		
Consumer Awareness & Capacity Building	Energy audits and advisory services Public information campaigns on energy efficiency & mobility Consumer education through agreements with energy suppliers Training programs for local governments and professionals Informing non-IT users about energy savings & compensation One-stop shops for energy consultations Provide free energy certificates and renovation passports for vulnerable groups	High	Consumer awareness and capacity building are an integral part of a strategy to reach vulnerable groups and make them aware of all the options and programmes available. Next to these awareness programs, vulnerable groups also need investment and financial support. **The question of whether the message reaches those most vulnerable is key.**	High	Potential to reach large audiences with targeted social media and other information campaigns, also in working with energy suppliers to reach consumers. **Exceptions:** Training programmes and one-stop shops may be evaluated 'Medium' due to higher running costs and smaller audience.	Medium	These measures have little direct impact on fossil fuel consumptions and emissions, but they may change behaviour indirectly by acting as catalysts for the adoption of other measures, which can produce some degree of reduction in fossil fuel use and associated emissions.
Smart Energy & Monitoring	Digitalisation of energy efficiency monitoring for businesses Implementation of smart metering systems Development of intelligent transport systems Promoting energy storage deployment in households	Medium	Smart energy and monitoring can be important accompanying factors in supporting the independence from fossil fuels for vulnerable groups, but likely do not have the highest impact on mitigating ETS-2 impacts. **Targeting and the strategy for administrative identification is key.**	Medium	Smart meter implementation has medium costs. Other measures need to be considered on a case-by-case basis. Promotion of energy storage could be low cost if information only, but if incentives/grants are involved then this would be relatively expensive.	Medium	These measures have little direct impact on consumption of fossil fuels and their emissions, but can produce information that can be used to change behaviour indirectly as catalysts for the adoption of other measures, which can then result in reductions.
Housing & Social Inclusion	Construction of new social housing Transformation of non-residential buildings into social housing Support for complex solutions in excluded communities Targeted support for vulnerable communities in housing initiatives	High	M&Is aimed at social housing and making it more affordable and climate friendly, less dependent on fossil fuels target those most vulnerable, therefore they are an integral part of the strategy, especially in countries where there is a lot of social housing. Additionality to other programs aimed at social housing is key.	Low	Large-scale renovation and complex solutions are relatively expensive interventions.	Low	No direct impact on consumption of fossil fuels and their emissions **Exception:** **U**nless the housing involves moving households from less efficient buildings to more efficient buildings.

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Regulatory & Fiscal Measures	Tax incentives for energy efficiency investments Regulatory reforms for charging infrastructure development Simplification of building codes for renovations Private sector involvement in compliance with energy standards Fiscal/regulatory reforms for energy efficiency investments	Medium	Regulatory and fiscal measures are an important part of addressing the vulnerable. However, tax incentives may be less important for those on low or lower-middle incomes and likely beneficial for higher income households (depending on the targeting). Regulatory reforms related to building renovation or infrastructure investments may be important prerequisites for some M&Is discussed above. Similarly, customer protection for the most vulnerable, such as avoiding disconnection from the grid.	High	Reforms to building codes, standards and regulations may cost time and resources for officials but are relatively low cost overall. Energy communities are relatively inexpensive to facilitate.	High	These measures seek to incentivise and mobilise private capital towards energy efficient and zero emissions technologies, which can result in fossil fuels use reductions, as well as reductions of associated emissions.

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